

GOLDEN STAR REPORTS THIRD QUARTER 2016 RESULTS

Toronto, ON – November 2, 2016 – Golden Star Resources Ltd. (NYSE MKT: GSS; TSX: GSC; GSE: GSR) ("Golden Star" or the "Company") reports its financial and operational results for the third quarter ended September 30, 2016.

Highlights:

- At the end of the third quarter of 2016, the Company remains on track to achieve its consolidated 2016 full year production, cash operating cost¹ and capital expenditure guidance
- Gold production for the quarter of 44,974 ounces, in line with expectations
 - 22,290 ounces from the Wassa Gold Mine ("Wassa")
 - 22,684 ounces from the Prestea Gold Mine ("Prestea"), representing record quarterly production for the Prestea Open Pits
- Consolidated cash operating cost¹ for the quarter of \$964 per ounce
 - \$1,110 per ounce at Wassa
 - \$835 per ounce at Prestea
- All-in sustaining cost¹ ("AISC") for the quarter of \$1,153 per ounce
- Capital expenditures of \$21.7 million during the quarter, bringing the total spent year to date to \$60.6 million, as the development of the Wassa Underground Gold Mine ("Wassa Underground") and the Prestea Underground Gold Mine ("Prestea Underground") continued
 - First stope has been blasted at Wassa Underground and commercial production is on schedule for early 2017
 - Underground mining contractor appointed for high grade Prestea Underground - commercial production on schedule for mid-2017
- Post-period end, mining lease received for the high grade Mampon deposit, further extending the mine life of the surface production from Prestea, subject to the environmental permit being received
- 10,300 metres of stope definition drilling completed at Wassa Underground – long term upside potential created
- Balance sheet strengthened through \$34.5 million equity offering and \$65 million placement of senior convertible notes – debt maturity schedule is now better aligned to forecasted cash flow
 - Repayment in full of the remaining \$22 million Ecobank Ghana Limited ("Ecobank") loan
- Mine operating margin of \$5.8 million, compared to a mine operating loss of \$4.3 million in the third quarter of 2015 ("Q3 2015")
- Consolidated cash balance of \$17.5 million, prior to the receipt of the \$20 million scheduled advance payment on October 3, 2016 from RGLD Gold AG ("RGLD"), a subsidiary of Royal Gold, Inc., pursuant to the gold purchase and sale agreement, as amended (the "Streaming Agreement") with RGLD

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

"Strong progress continues to be made at both of our underground development projects and it is exciting that by the third quarter of next year, we expect to be producing from multiple ore sources: both underground and surface deposits. This is anticipated to

transform the risk profile of the Company significantly and deliver robust production growth and substantially reduced costs. We expect to be in commercial production at Wassa Underground in early 2017 and Prestea Underground in mid-2017, which will complete our transformation into a high grade, low cost, non-refractory gold producer. At the end of the third quarter, we remain on track to achieve our 2016 full year guidance for production, cash operating cost per ounce¹ and capital expenditures.”

SUMMARY OF CONSOLIDATED OPERATIONAL AND FINANCIAL RESULTS

		Three Months Ended September 30,	
		2016	2015
OPERATING SUMMARY			
Wassa Main Pit gold sold	oz	20,229	28,848
Wassa Underground gold sold	oz	2,202	—
Bogoso/Prestea gold sold	oz	22,930	23,050
Total gold sold	oz	45,361	51,898
Total gold produced	oz	44,974	51,898
Average realized gold price	\$/oz	1,286	1,088
Cash operating cost per ounce – Consolidated ¹	\$/oz	964	988
Cash operating cost per ounce – Wassa ¹	\$/oz	1,110	770
Cash operating cost per ounce – Bogoso/Prestea ¹	\$/oz	835	1,261
All-in sustaining cost per ounce – Consolidated ¹	\$/oz	1,153	1,151
FINANCIAL SUMMARY			
Gold revenues	\$'000	55,511	56,452
Cost of sales excluding depreciation and amortization	\$'000	44,608	55,199
Depreciation and amortization	\$'000	5,111	5,525
Mine operating margin/(loss)	\$'000	5,792	(4,272)
General and administrative expense	\$'000	9,370	3,299
Loss/(gain) on fair value of financial instruments, net	\$'000	5,784	(5,056)
Loss on repurchase of 5% Convertible Debentures, net	\$'000	12,048	—
Net loss attributable to Golden Star shareholders	\$'000	(23,110)	(6,832)
Adjusted net earnings/(loss) attributable to Golden Star shareholders ¹	\$'000	1,148	(11,205)
Loss per share attributable to Golden Star shareholders - basic and diluted	\$/share	(0.07)	(0.03)
Adjusted earnings/(loss) per share attributable to Golden Star shareholders - basic and diluted ¹	\$/share	0.01	(0.04)
Cash provided by operations	\$'000	20,964	45,341
Cash provided by operations before working capital changes ¹	\$'000	21,500	43,223
Cash provided by operations per share - basic and diluted	\$/share	0.06	0.17
Cash provided by operations before working capital changes per share - basic and diluted	\$/share	0.07	0.15
Capital expenditures	\$'000	21,656	17,789

Notes

1. See "Non-GAAP Financial Measures" information on page 19

OPERATIONAL PERFORMANCE

Following the second quarter when substantial progress was made with both underground development projects, the focus of the third quarter of 2016 continued to be on advancing Wassa Underground and Prestea Underground towards commercial production.

The blasting of the first stope at Wassa Underground was announced 10 days into the quarter, on July 10, 2016, and the mine remains on track to achieve commercial production in early 2017. Five stopes are expected to be mined during the fourth quarter of 2016 in the moderate grade F Shoot, with production increasing in the first quarter of 2017 when Golden Star begins to access the higher grade B Shoot.

The underground mining contractor was appointed for Prestea Underground and the refurbishment work continues to advance as planned. The first stope is expected to be blasted at Prestea Underground in the second quarter of 2017, with commercial production following shortly afterwards in mid-2017.

From an operational perspective, at the end of the third quarter of 2016, Golden Star remains on track to achieve its full year 2016 guidance in terms of production, cash operating cost per ounce¹ and capital expenditures. During the quarter, 44,974 ounces of gold were produced, in line with expectations. The Prestea Open Pits delivered a record quarter, producing 22,684 ounces of gold, which is the strongest result since the mine began non-refractory gold production in the third quarter of 2015.

Golden Star's annual production profile is impacted by seasonality, with the most robust production results expected in the first and fourth quarters of the year, when Ghana tends to be driest. The second and third quarters of the year tend to generate weaker production results due to the rainy season, which impacts open pit operations. Additionally, the grade profile in the Wassa Main Pit remains dependent on the horizon being mined as grade increases at depth. However from mid-2017 when both underground operations are expected to be in commercial production, Golden Star anticipates that its production profile will be less impacted by seasonality and production will be at a more consistent rate throughout the year.

The consolidated cash operating cost per ounce¹ was \$964, which was in line with Golden Star's expectations for the quarter. The AISC was \$1,153 per ounce for the quarter. Costs are expected to decrease as the Company continues its transition to non-refractory lower cost production and moves towards the commencement of commercial production at both high grade underground projects.

Wassa Gold Mine

		Three Months Ended September 30,	
		2016	2015
WASSA FINANCIAL RESULTS			
Revenue	\$'000 \$	25,958	\$ 31,702
Mine operating expenses	\$'000	22,473	23,389
Severance charges	\$'000	—	1,013
Royalties	\$'000	1,488	1,617
Operating costs to metals inventory	\$'000	(20)	(1,178)
Inventory net realizable value adjustment	\$'000	—	—
Cost of sales excluding depreciation and amortization	\$'000	23,941	24,841
Depreciation and amortization	\$'000	3,464	3,713
Mine operating (loss)/margin	\$'000 \$	(1,447)	\$ 3,148
Capital expenditures	\$'000	9,699	8,506
WASSA OPERATING RESULTS			
Ore mined	t	607,577	728,046
Waste mined	t	2,742,260	2,658,218
Ore processed	t	699,006	635,332
Grade processed	g/t	1.09	1.51
Recovery	%	93.4	92.9
Gold produced	oz	22,290	28,848
Gold sold - Main Pit	oz	20,229	28,848
Gold sold - Underground	oz	2,202	—
Gold sold - Total	oz	22,431	28,848
Cash operating cost per ounce ¹	\$/oz	1,110	770

Notes

1. See "Non-GAAP Financial Measures" information on page 19

Wassa Operational Overview

Gold production from Wassa was 22,290 ounces for the third quarter of 2016. During the quarter, Wassa Main Pit performed in line with expectations, however on a nine monthly basis, production from the mine was below budget. This is as a result of the lower than expected head grade during the second quarter of 2016, which can be partially attributed to a higher than expected dilution during mining. Following the identification of this issue, measures were put in place to reduce dilution, which resulted in higher grade ore being processed from the open pit in September 2016. Production in the fourth quarter of 2016 is forecasted to be in line with expectations.

Golden Star anticipated that it would be able to offset the lower than expected gold production encountered at Wassa during the second quarter of 2016 by processing additional tonnes during the third quarter. Due to the plant upgrade that was undertaken in the second quarter of 2016, throughput in the processing plant has increased by 10% compared to Q3 2015. 699,006 tonnes of ore were processed during the third quarter, which equates to approximately 7,766 tonnes per day ("tpd") or 2.8 million tonnes per annum ("Mtpa"), which is above nameplate capacity. Although Golden Star did achieve stronger processing rates, the Company was not able to produce enough in Q3 2016 to offset the weaker performance in the second quarter of 2016, as hoped.

Wassa reported a cash operating cost per ounce¹ for the third quarter of 2016 of \$1,110. This was in line with Golden Star's expectations given the average head grade processed (1.09g/t) was also in line with expectations due to the horizon of the pit being mined. These costs relate solely to Wassa Main Pit as Wassa Underground is still in pre-commercial production and therefore gold production and operating costs were capitalized.

Capital expenditures at Wassa for the quarter were \$9.7 million, a 14% increase compared to Q3 2015. The majority of this amount was development capital, with \$6.4 million relating to Wassa Underground and \$1.9 million for the improvement of the tailings storage facility. The remaining \$1.3 million was sustaining capital. Approximately \$21.0 million has been spent on the development of Wassa Underground year-to-date, including \$2.1 million of capitalized interest. Golden Star now expects total capital expenditures to be \$34.0 million for Wassa in 2016, with the remaining \$10.0 million to be incurred during the fourth quarter.

As part of Wassa Underground's transition from construction phase to production phase, two key changes were made to the leadership team at the mine in early September. Gary Chapman joined Golden Star as General Manager for Wassa and Chris Harmse joined as Wassa Underground Mine Manager. A geologist by background, Gary was General Manager for Acacia Mining plc's North Mara mine in Tanzania prior to joining the Company and prior to that he worked in Ghana for Gold Fields Limited. Chris has over 30 years' experience of underground mining and has worked on a variety of continents for companies including Anglo American plc.

Wassa Underground Development

Wassa Underground commenced pre-commercial production in early July 2016. The successful blasting of the first stope delivered the first ore from the new underground mine to the Wassa processing plant, where it was blended with ore from Wassa Main Pit. Underground ore was mined using longitudinal longhole stoping, although the primary mining method that will be used in Wassa Underground is transverse stoping.

The development of Wassa Underground's infrastructure is at an advanced stage, with all surface infrastructure and plant modifications complete. Underground development has progressed sufficiently in order to accommodate the near term mine plan, including a twin decline and a ventilation system. Construction activities are expected to be complete at the end of the fourth quarter of 2016.

The first stope is in the upper part of the F Shoot, which is one of the more moderate grade areas of the underground mine. Golden Star is using the F Shoot mineralization to

establish grade control and final stope design protocols before the mine plan moves on to the higher grade B Shoot.

Initial gold production from the F Shoot was lower than anticipated due to higher than expected internal dilution within the stopes. Golden Star drilled 10,300 metres in this area during the quarter in order to update the short range block models and delineate the stopes more effectively. With more informed stope design, the mining team will target the best areas of mineralization with minimal internal dilution during the fourth quarter of 2016.

Due to this focus on the F Shoot, Golden Star expects to begin mining the first stopes of the B Shoot in the first quarter of 2017. This means that during the fourth quarter of 2016 only development ore will be mined and processed from the B Shoot and planned 2016 production from the B Shoot will be deferred until Q1 2017. Accordingly, production from Wassa Underground in 2016 is now expected to be 11,000-15,000 ounces and the total production from Wassa (open pit and underground operations) is expected to be 100,000-112,000 ounces. Wassa's 2016 full year guidance for cash operating cost per ounce¹ is \$900-990. Golden Star's consolidated production guidance remains unchanged at 180,000-205,000 ounces at a cash operating cost per ounce¹ of \$815-\$925.

This short term change in the mine plan is expected to allow for more ounces to be mined from the F Shoot over the life of mine than was previously anticipated, creating longer term upside. Generating production from two sources of ore (the F Shoot and the B Shoot) will also minimize the risk of the underground operations during the first half of 2017, when Wassa Underground is still ramping up to its nameplate capacity.

Wassa Underground is expected to achieve commercial production in early 2017 and the full production rate is expected to be achieved in 2018. From 2017 onwards, the average life of mine combined production from Wassa Main Pit and Wassa Underground is expected to be 175,000 ounces of gold per annum.

Prestea Gold Mine

		Three Months Ended September 30,	
		2016	2015
BOGOSO/PRESTEA FINANCIAL RESULTS			
Revenue	\$'000 \$	29,553	\$ 24,750
Mine operating expenses	\$'000	19,959	30,963
Royalties	\$'000	1,515	1,294
Operating costs to metals inventory	\$'000	(807)	(1,899)
Cost of sales excluding depreciation and amortization	\$'000	20,667	30,358
Depreciation and amortization	\$'000	1,647	1,812
Mine operating margin/(loss)	\$'000 \$	7,239	\$ (7,420)
Capital expenditures	\$'000	11,913	9,283
BOGOSO/PRESTEA OPERATING RESULTS			
Ore mined refractory	t	—	60,533
Ore mined non-refractory	t	469,075	179,186
Total ore mined	t	469,075	239,719
Waste mined	t	1,212,431	605,715
Refractory ore processed	t	—	435,185
Refractory ore grade	g/t	—	1.66
Gold recovery - refractory ore	%	—	60.4
Non-refractory ore processed	t	386,621	289,346
Non-refractory ore grade	g/t	2.20	1.35
Gold recovery - non-refractory ore	%	82.7	68.0
Gold produced - refractory	oz	—	15,648
Gold produced - non-refractory	oz	22,684	7,402
Gold produced - total	oz	22,684	23,050
Gold sold - refractory	oz	—	15,648
Gold sold - non-refractory	oz	22,930	7,402
Gold sold - total	oz	22,930	23,050
Cash operating cost per ounce ¹	\$/oz	835	1,261

Notes

1. See "Non-GAAP Financial Measures" information on page 19

Prestea Operational Overview

During the third quarter of 2016 Prestea achieved record quarterly production, with 22,684 ounces of gold produced. This is the most gold produced by the Prestea Open Pits since production began from the oxide surface deposits in the third quarter of 2015.

Prestea has produced 65,646 ounces year to date and as a result of this very strong performance, Golden Star is increasing its 2016 full year production guidance for the Prestea Open Pits to 80,000-93,000 ounces. This represents an expected outperformance of approximately 30% compared to previous guidance.

Production of 22,684 ounces in the third quarter of 2016 compares to 7,402 ounces of non-refractory production in the same period for 2015. This is due to the fact that the mining and processing of the Prestea oxide ore did not commence until Q3 2015 and therefore the majority of production for that period was from low grade tailings. Refractory gold production, which was suspended in the third quarter of 2015, was 15,648 ounces of gold during Q3 2015.

Prestea reported a cash operating cost per ounce¹ of \$835 for the third quarter of 2016, which is below the full year guidance range of \$840-970 per ounce for Prestea. This is as a result of the exceptionally strong production results during the period, and accordingly the mine's 2016 guidance for cash operating cost per ounce¹ is now \$800-\$890.

The cash operating cost per ounce in Q3 2016 represents a 34% decrease compared to the same period in 2015. This \$426 per ounce reduction is due to the change in cost profile at Prestea. Mining and processing costs in the third quarter of 2016 were attributable to the lower cost non-refractory operation, whereas 68% of gold sold in the same period in 2015 was attributable to the higher cost, higher power consuming refractory operation.

Total capital expenditures for the third quarter of 2016 were \$11.9 million, a 28% increase compared to the same period in 2015. This is as a result of an increase in development capital expenditures, which comprised 96% of the total capital during the quarter, and were used to continue to advance Prestea Underground towards production. Golden Star continues to expect total capital expenditures for Prestea Underground to be \$36.0 million during 2016, of which \$26.0 million have been incurred to date, including \$1.3 million of capitalized interest.

Post-period end, Golden Star announced the receipt of the mining lease for the Mampon deposit. Mampon is a high grade, oxide deposit, containing a Mineral Reserve of 45,000 ounces of gold (304Kt at 4.60 g/t), approximately 65 kilometres to the north of the Company's carbon-in-leach processing plant at the Bogoso site. There is an existing, good quality road connecting the deposit and the processing plant for the majority of the distance, so limited capital expenditures will be required in order to bring Mampon into production. Following the receipt of the mining lease, the next step for the Company is to obtain an environmental permit

Higher grade ore from Mampon will be blended with ore from the Prestea Open Pits, which is expected to enhance Golden Star's cash flow in 2017. Golden Star expects to start mining Mampon in the first half of 2017 and therefore represents upside on the Company's current production profiles as per the Wassa operations and Prestea Underground feasibility studies.

Prestea Underground Development

Refurbishment work continued to progress as expected at the high grade Prestea Underground Gold Mine during the third quarter of 2016. With ore body development

expected to begin in the fourth quarter of 2016, Golden Star took the important step of appointing an underground mining contractor. Manroc Developments Inc. ("Manroc") was selected following a competitive bid process, involving a number of large mining contractors. Manroc specializes in Alimak stoping, a mechanized shrinkage mining method. The contractor has worked on major projects on a variety of continents and its clients have included Barrick Gold Corporation, Goldcorp Inc. and Nyrstar. Manroc has previously operated in Ghana and Tanzania.

Alimak stoping was selected as the mining method for Prestea Underground due to its safety and efficiency benefits over conventional shrinkage mining. Prestea Underground is a narrow, high grade deposit, with Mineral Reserves of 1.0Mt at 14.02g/t for 469,000 ounces and substantial exploration upside potential.

In line with the refurbishment plan, development of underground infrastructure commenced during the third quarter of 2016, with rehabilitation works along 24 Level to improve the track for high-speed haulage and the installation of new electrical and water supply services now complete. Work is continuing to advance with other engineering, procurement, rehabilitation and construction activities on-going, including the construction of a workshop and electrical bays and the slashing of existing drives to a size suitable for mechanized load-haul-dump equipment.

The winder upgrade is also progressing with manufacturing of key electrical and mechanical items, which combined with the shaft rehabilitation, will enable an increase in hoisting capacity to satisfy the production profile in 2017. The mining rate in the Prestea Underground Feasibility Study is 650 tpd and the shaft's capacity is 1,200 tpd, so if further Mineral Reserves are delineated, as is expected by Golden Star, there is capacity for the mine's production rate to be increased substantially.

Construction activities continue to advance according to schedule and stoping is expected to start in the second quarter of 2017, with commercial production anticipated to be declared in mid-2017.

Exploration

During the quarter, Golden Star's exploration program focused on stope definition at Wassa Underground and further Mineral Resource definition at the Prestea South open pit.

Wassa Underground stope definition drilling totaled 10,300 metres for the third quarter of 2016, bringing the year to date drilling total to 20,800 metres. Drilling results for the F Shoot have determined that the higher grades are concentrated along fold noses, which plunge gently to the south. They have also demonstrated that the mineralized zones extend to the North, which indicates the potential to increase the deposit's Mineral Resources. The majority of the F Shoot drilling is scheduled to be completed in the fourth quarter of 2016 and the focus of the drilling program will then shift to the B Shoot.

Drilling at Prestea South concentrated on Mineral Resource definition within the planned oxide pit shells as well as strike extensions on several of the mineralized trends. Results have confirmed the mine plan and several holes have intersected mineralized zones outside the current pit limits along strike. During the fourth quarter, drilling will focus on confirming these positive results and if it is successful, the exploration team will then

conduct Mineral Resource definition drilling with the objective of further extending the mine life of the Prestea South pit.

Golden Star expects to provide an update on its exploration strategy in the first quarter of 2017. There is an opportunity to expand the Mineral Reserves and extend the mine lives of both Wassa and Prestea through further drilling. In addition, Golden Star has 3.1 million ounces of Inferred Mineral Resources (20.3Mt at 4.82g/t). Through further drilling there is the potential to convert these ounces to Indicated Mineral Resources.

There is also substantial potential to increase Golden Star's Mineral Resources outside of the existing Mineral Resource footprint. The Company's concession areas total 1,156 square kilometres of the Ashanti Gold Belt in Ghana, which is one of the largest land package of any company operating in country, including the major gold producers. Once the current capital expenditures programs are complete, Golden Star plans to ramp up its exploration program, which is expected to expand its Mineral Resource and Mineral Reserve base and increase the lives of its operations.

FINANCIAL PERFORMANCE

Capital Expenditures

Similarly to the second quarter of 2016, during the third quarter Golden Star continued to incur substantial capital expenditures as a result of the development work being undertaken at Wassa Underground and Prestea Underground. In the first half of the year, development capital expenditures at both underground projects were at similar levels, however in the third quarter \$6.4 million was incurred at Wassa Underground, whereas \$11.4 million was incurred at Prestea Underground. This reflects the construction phase at Wassa Underground coming to an end in early 2017, following the blasting of the first stope at the start of the third quarter, whereas the refurbishment work and ore body development phase is expected to be on-going at Prestea Underground until the second quarter of 2017.

Third Quarter 2016 Capital Expenditures Breakdown

Item	Sustaining	Development	Total
Wassa Open Pit and Processing Plant	1.3		1.3
Wassa Tailings Expansion		1.9	1.9
Wassa Underground		6.4	6.4
Wassa Subtotal	1.3	8.3	9.7
Prestea Open Pit Mines	0.5		0.5
Prestea Underground		11.4	11.4
Prestea Subtotal	0.5	11.4	11.9
Consolidated	1.8	19.7	21.7

Please note numbers may not add due to rounding.

During the first nine months of the year, Golden Star spent \$60.6 million of the total \$90.0 million capital expenditures guidance for the year. The remainder of the \$90.0 million is expected to be incurred during the fourth quarter of 2016.

Other Financial Highlights

During the quarter gold revenues totaled \$55.5 million from gold sales of 43,159 ounces, which excludes the 2,202 ounces sold from Wassa Underground, at an average realized gold price of \$1,286 per ounce. This represents a 2% decrease in revenue compared to the third quarter of 2015, which is mainly as a result of fewer ounces sold at Wassa but offset by the higher realized gold price.

Cost of sales excluding depreciation and amortization was \$44.6 million in the quarter, which is a 19% decline from the same period of 2015. This is as a result of fewer ounces sold and lower mine operating expenses following the closure of the high cost Bogoso refractory operation.

Depreciation and amortization totaled \$5.1 million, compared to \$5.5 million in the third quarter of 2015. Although this represents just a 7% decline, for the first three quarters of 2016 depreciation and amortization totaled \$15.0 million compared to \$30.3 million in the same period in 2015. This 50% decrease is as a result of lower production from both operations and higher Mineral Reserve and Mineral Resource estimates at Prestea compared to the prior year.

Mine operating margin also increased significantly to \$5.8 million compared to a \$4.3 million mine operating loss in Q3 2015. This is a function of lower cost of sales during the third quarter of 2016 as gold revenues and depreciation and amortization largely remained the same during the two periods.

General and administrative ("G&A") expenses were \$9.4 million for the quarter, which included \$6.4 million of non-cash share-based compensation expense reflecting the significant improvement in the Company's share price. G&A expenses excluding non-cash share-based compensation costs totaled \$2.9 million for the quarter, which were slightly lower than in the same period in 2015.

The Company also recorded \$5.8 million of fair value losses on financial instruments comprised of a \$1.9 million non-cash revaluation loss on its 5% convertible senior unsecured debentures due June 1, 2017 (the "5% Convertible Debentures"), \$3.3 million non-cash revaluation loss on the derivative liability on the 7% Convertible Debentures, \$0.8 million non-cash revaluation loss on warrants, offset by a \$0.3 million non-cash revaluation gain on forward and collar contracts. This compares to a fair value gain of \$5.1 million in the third quarter of 2015, which was comprised of a \$4.9 million non-cash revaluation gain on the 5% Convertible Debentures and a \$0.2 million non-cash revaluation gain on warrants.

The net loss attributable to Golden Star shareholders in the quarter was \$23.1 million or \$0.07 loss per share, compared to a net loss of \$6.8 million or \$0.03 loss per share for the same period in 2015. The increase in net loss attributable to Golden Star shareholders for Q3 2016 was due mainly to a \$12.0 million realized loss on the repurchase of the 5% Convertible Debentures, a \$10.9 million increase in loss on fair value of financial instruments and a \$6.7 million increase in non-cash share-based compensation expense, offset by a \$10.1 million increase in mine operating margin and a \$3.6 million decrease in net finance expenses.

After certain adjustments, the adjusted net earnings attributable to Golden Star shareholders¹ was \$1.1 million, a significant improvement from the adjusted net loss

attributable to Golden Star shareholders reported in the third quarter of 2015 of \$11.2 million. The stronger adjusted net earnings was due principally to the higher mine operating margin at Prestea in the third quarter of 2016 compared to Q3 2015, when the high cost Bogoso operation was still in operation.

Cash provided by operations for the quarter was \$21.0 million or \$0.06 per share, which compares to \$45.3 million or \$0.17 per share in the same period in 2015. Cash provided by operations before changes in working capital for the quarter was \$21.5 million or \$0.07 per share. During Q3 2016, an advance payment of \$20 million was received from RGLD in line with the Streaming Agreement, however during the same period in 2015, Golden Star received advance payments of \$55 million from RGLD and this is primarily the reason for the stronger result in Q3 2015.

The consolidated cash balance was \$17.5 million at the end of the third quarter of 2016, which does not reflect the \$20 million received on October 3, 2016 from RGLD.

For further information about Golden Star's operational and financial performance, please visit the Financial and Operational database at <http://apps.indigotools.com/IR/IAC/?Ticker=GSC&Exchange=TSX>. The data relating to the third quarter of 2016 will be available 24 hours after release at the latest.

Other Corporate Developments

Offering of Common Shares and Private Placement of Convertible Debentures

During the quarter the Company undertook an offering of equity and an offering of convertible debentures in order to strengthen its balance sheet and reduce its risk profile significantly. The two financing transactions closed on August 3, 2016.

The net cash proceeds of the equity offering were approximately \$31.8 million and the net cash proceeds of the private placement of 7% convertible debentures were approximately \$20.7 million. The funds from the offerings were used repay the Ecobank loan (further details are included below), to repurchase additional 5.0% Convertible Debentures due June 1, 2017 in privately negotiated transactions and for other corporate purposes. After the above mentioned transactions, the remaining balance of the 5.0% Convertible Debentures is \$13.6 million principal amount. Golden Star expects to be able to repay its outstanding debt obligations through future cash flow.

Repayment in full of Ecobank II Loan

With a portion of the proceeds from the financing transactions, Golden Star repaid in full its loan with Ecobank during the quarter. The loan was a \$25 million medium term facility ("Ecobank II") and since the facility became available to the Company in September 2014, Golden Star had previously repaid \$3 million.

The repayment of Ecobank II is expected to result in a saving of approximately \$600,000 in interest charges during the remainder of 2016. It also is expected to have a significant positive impact on Golden Star's cash flows, as the Company was due to use its operating cash flows to make principal (and interest payments) of \$8.4 million to Ecobank by the end of 2017: \$2.8 million in the second half of 2016 and \$5.6 million in 2017.

\$20 Million Received from Streaming Agreement with Royal Gold

Golden Star received a scheduled advance payment from RGLD of \$20 million on July 1, 2016 and post-period end, it received another payment of \$20 million on October 3, 2016, pursuant to the Streaming Agreement. This second payment brings the payments made to date to \$135 million of the total \$145 million expected before the end of January 2017. Payments under the Streaming Agreement are being used to enable Golden Star to continue its transformation to becoming a low cost, non-refractory gold producer.

Appointment of Gil Clausen to the Board of Directors

On July 18, 2016 Golden Star further strengthened its Board by appointing Gil Clausen. Mr. Clausen is the President and Chief Executive Officer of Brio Gold and former President, Chief Executive Officer and Director of Augusta Resource Corporation. He also serves as an independent director of Plata Latina Minerals Corporation. With over 30 years of executive, financial, developmental and operational industry experience, Mr. Clausen has been responsible for executing growth strategies for mining companies on a range of continents and across a variety of commodities.

Outlook

Golden Star remains on track to achieve its consolidated full year production of 180,000-205,000 ounces of gold in 2016. The Company also maintains its cash operating cost per ounce¹ guidance of between \$815 and \$925 and its capital expenditure guidance of \$90 million, which includes \$81 million of development capital and \$9 million of sustaining capital. Golden Star expects its cash operating costs to decrease further as both underground development projects commence commercial production and the Company completes its transformation into a high grade, low cost gold producer.

Third Quarter 2016 Conference Call

The Company will conduct a conference call and webcast to discuss its results for the third quarter of 2016 on Thursday, November 3, 2016 at 10:00am ET.

The quarterly results call can be accessed by telephone or by webcast as follows:

Toll Free (North America): +1 888 390 0605

Toronto Local and International: +1 416 764 8609

Webcast: www.gsr.com

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

Notes

1. See "Non-GAAP Financial Measures" information on page 19

For further information, please visit www.gsr.com or contact:

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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 western Ghana, 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 two high grade, low cost underground mines both in conjunction with existing open pit operations. The Wassa Underground commenced pre-commercial production in mid-2016 and the Prestea Underground is expected to commence production in mid-2017. Both projects are fully funded and on track to begin production as expected. Production in 2016 is expected to be between 180,000–205,000 ounces of gold with costs of \$815-\$925 per ounce.

GOLDEN STAR RESOURCES LTD.
CONDENSED INTERIM CONSOLIDATED STATEMENTS OF OPERATIONS AND
COMPREHENSIVE LOSS

(Stated in thousands of U.S. dollars except shares and per share data)
(Unaudited)

	Three Months Ended	
	September 30,	
	2016	2015
Revenue	\$ 55,511	\$ 56,452
Cost of sales excluding depreciation and amortization	44,608	55,199
Depreciation and amortization	5,111	5,525
Mine operating margin/(loss)	5,792	(4,272)
Other expenses/(income)		
Exploration expense	408	381
General and administrative	9,370	3,299
Finance expense, net	2,001	5,573
Other (income)/expense	(27)	57
Loss/(gain) on fair value of financial instruments, net	5,784	(5,056)
Loss on repurchase of 5% Convertible Debentures, net	12,048	—
Net loss and comprehensive loss	\$ (23,792)	\$ (8,526)
Net loss attributable to non-controlling interest	(682)	(1,694)
Net loss attributable to Golden Star shareholders	\$ (23,110)	\$ (6,832)
Net loss per share attributable to Golden Star shareholders		
Basic and diluted	\$ (0.07)	\$ (0.03)
Weighted average shares outstanding-basic and diluted (millions)	325.3	259.7

GOLDEN STAR RESOURCES LTD.
CONDENSED INTERIM CONSOLIDATED BALANCE SHEETS
(Stated in thousands of U.S. dollars)
(Unaudited)

	As of	
	September 30, 2016	December 31, 2015
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	\$ 17,494	\$ 35,108
Accounts receivable	5,464	5,114
Inventories	43,657	36,694
Prepays and other	5,219	5,754
Total Current Assets	71,834	82,670
RESTRICTED CASH	6,463	6,463
MINING INTERESTS	195,435	149,849
Total Assets	<u>\$ 273,732</u>	<u>\$ 238,982</u>
LIABILITIES		
CURRENT LIABILITIES		
Accounts payable and accrued liabilities	\$ 87,603	\$ 110,811
Derivative liabilities	4,324	407
Current portion of rehabilitation provisions	5,961	3,660
Current portion of long term debt	15,535	22,035
Current portion of deferred revenue	17,422	11,507
Total Current Liabilities	130,845	148,420
LONG TERM DEBT	92,990	91,899
DEFERRED REVENUE	79,462	53,872
REHABILITATION PROVISIONS	70,724	76,025
LONG TERM DERIVATIVE LIABILITY	15,600	—
OTHER LONG TERM LIABILITY	13,097	—
Total Liabilities	<u>402,718</u>	<u>370,216</u>
SHAREHOLDERS' EQUITY		
SHARE CAPITAL		
First preferred shares, without par value, unlimited shares authorized. No shares issued and outstanding	—	—
Common shares, without par value, unlimited shares authorized	741,079	695,555
CONTRIBUTED SURPLUS	33,650	32,612
DEFICIT	(836,397)	(793,304)
Deficit attributable to Golden Star	(61,668)	(65,137)
NON-CONTROLLING INTEREST	(67,318)	(66,097)
Total Liabilities and Shareholders' Equity	<u>\$ 273,732</u>	<u>\$ 238,982</u>

GOLDEN STAR RESOURCES LTD.
CONDENSED INTERIM CONSOLIDATED STATEMENTS OF CASH FLOWS
(Stated in thousands of U.S. dollars)
(Unaudited)

	Three Months Ended September 30,	
	2016	2015
OPERATING ACTIVITIES:		
Net loss	\$ (23,792)	\$ (8,526)
Reconciliation of net loss to net cash provided by operating activities:		
Depreciation and amortization	5,114	5,533
Share-based compensation	6,426	(229)
Loss on fair value of embedded derivatives	3,341	—
Loss/(gain) on fair value of 5% Convertible Debentures	1,920	(4,911)
Loss on repurchase of 5% Convertible Debentures, net	12,048	—
Loss/(gain) on fair value of warrants	820	(145)
Gain on fair value of non-hedge derivative contracts	(297)	—
Realized loss on non-hedge derivative contracts	(1,320)	—
Recognition of deferred revenue	(2,889)	(4,874)
Proceeds from Royal Gold stream	20,000	55,000
Reclamation expenditures	(1,325)	(275)
Other	1,454	1,650
Changes in working capital	(536)	2,118
Net cash provided by operating activities	20,964	45,341
INVESTING ACTIVITIES:		
Additions to mining properties	(261)	(373)
Additions to plant and equipment	—	(237)
Additions to construction in progress	(21,395)	(17,179)
Change in accounts payable and deposits on mine equipment and material	146	3,542
Increase in restricted cash	—	(4,419)
Net cash used in investing activities	(21,510)	(18,666)
FINANCING ACTIVITIES:		
Principal payments on debt	(23,803)	(39,175)
Proceeds from 7% Convertible Debentures, net	20,729	—
5% Convertible Debentures repurchase	(18,240)	—
Proceeds from Royal Gold loan, net	—	18,725
Shares issued, net	31,771	—
Exercise of options	6	—
Net cash provided by/(used in) financing activities	10,463	(20,450)
Increase in cash and cash equivalents	9,917	6,225
Cash and cash equivalents, beginning of period	7,577	21,448
Cash and cash equivalents, end of period	<u>\$ 17,494</u>	<u>\$ 27,673</u>

Non-GAAP Financial Measures

In this press release, we use the terms "cash operating cost per ounce", "all-in sustaining costs per ounce", "cash provided by operations before changes in working capital", "cash flow generated before changes in working capital" and "adjusted net earnings/ (loss) attributable to shareholders". 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.

"Cost of sales excluding depreciation and amortization" as found in the statements of operations includes all mine-site operating costs, including the costs of mining, ore processing, maintenance, work-in-process inventory changes, mine-site overhead as well as production taxes, royalties, and by-product credits, but excludes exploration costs, property holding costs, corporate office general and administrative expenses, foreign currency gains and losses, gains and losses on asset sales, interest expense, gains and losses on derivatives, gains and losses on investments and income tax expense/benefit. "Cash operating cost per ounce" 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 divided by the number of ounces of gold sold during the period. We use cash operating cost per ounce as a key operating indicator. We monitor this measure monthly, comparing each month's values to third quarters' 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 International Financial Reporting Standards ("IFRS").

"All-In Sustaining Costs" commences with cash operating costs and then adds sustaining capital expenditures, corporate general and administrative costs excluding non-cash share based compensation, mine site exploratory drilling and greenfield evaluation costs and environmental rehabilitation costs. 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 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. Non-cash share-based compensation expenses are now also excluded from the Company's current method of calculating All-In Sustaining Costs, as the Company believes that such expenses may not be representative of the actual payout on the equity and liability based awards. Non-cash share-based compensation expenses were previously included in the calculation of all-in sustaining costs. The Company has presented comparative figures to conform with the computation of All-in Sustaining Costs as currently calculated by the Company.

"Cash provided by operations before working capital changes" and "cash flow generated before changes in working capital" are calculated by subtracting the "Changes in working

capital" from "Net cash provided by operating activities" as found in the statements of cash flows.

In order to indicate to stakeholders the Company's earnings excluding the non-cash loss on the fair value of the Company's outstanding convertible debentures, non-cash loss on repurchase of 5% Convertible Debentures and non-cash impairment charges, non-cash gain on reduction of asset retirement obligations, the non-cash share based compensation and severance charges the Company calculates "adjusted net earnings/(loss) attributable to shareholders" to supplement the condensed consolidated financial statements.

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. 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 financial 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, 2015 and in the Company's Management Discussion and Analysis for the three months ended September 30, 2016, both of which are available at www.sedar.com and at www.qsr.com/investors/financials/

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 ability to achieve consolidated 2016 full year production, cash operating cost and capital expenditure guidance; expected reductions in all-in sustaining costs; the ability to achieve, and the timing of, commercial production and full production

at Wassa Underground and Prestea Underground; the extension of mine life at the Prestea Open Pits; production increases, and the quantum of such increases, at F Shoot; the transformation of the Company and its risk profile and accompanying production growth and reduced costs; the number of stopes to be mined at Wassa Underground during the fourth quarter of 2016, and the timing for accessing and mining the B Shoot and its impact on production; the timing of the first stope at Prestea Underground; the impact of seasonality on the Company's production profile when the underground mines are in production; expected production during the fourth quarter of 2016; the ability of the Company to target the best areas of mineralization with minimal internal dilution when five F Shoot stopes are mined during the fourth quarter of 2016; Wassa Underground and consolidated Wassa production during 2016; production from the F Shoot and the B Shoot minimizing the risk of the Wassa Underground operations during the first half of 2017; average annual life of mine combined production from Wassa Main Pit and Wassa Underground; total 2016 production from the Prestea Open Pits; Prestea cash operating cost guidance for 2016; the receipt of an environmental permit for Mampon; the start of mining at Mampon and the timing thereof; higher grade ore from Mampon being blended with ore from the Prestea Open Pits, and the impact on Golden Star's cash flow in 2017; the commencement of ore body development at Prestea Underground in the fourth quarter of 2016; the safety and efficiency benefits of Alimak stoping over conventional shrinkage mining; the exploration upside potential at Prestea Underground; the delineation of further Mineral Reserves at Prestea Underground; the timing from completing the F Shoot drilling and the subsequent focus of the drilling program on the B Shoot; fourth quarter of 2016 drilling at Prestea South pit and subsequent Mineral Resource definition drilling at such pit; the time for updating the Company's mineral exploration strategy; the opportunity to extend the mine lives of both Wassa and Prestea through further drilling; the ability to convert Inferred Mineral Resources to Indicated Mineral Resources; the potential to increase Golden Star's Mineral Resources outside of the existing Mineral Resource footprint; ramping up the Company's exploration program in order to expand its Mineral Resource and Mineral Reserve base and increase the lives of its operations; the Company's ability to repay its remaining outstanding debt obligations through future cash flow; the expected decrease in cash operating costs as both underground development projects commence commercial production and the Company completes its transformation into a high grade, low cost gold producer; sustaining, development and total capital expenditures for 2016; future work to be completed at Prestea Underground Gold Mine; and the ability of the Company to repay the 5% Convertible Debentures when due.

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 and Quality Control

The technical contents of this press release, in relation to Mineral Resources, 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.

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

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 U.S. investors

This news release has been prepared in accordance with the requirements of the securities laws in effect in Canada, which differ materially from the requirements of United States securities laws applicable to U.S. companies. The terms "mineral reserve", "proven mineral reserve" and "probable mineral reserve" are Canadian mining terms as defined in accordance with NI 43-101. These definitions differ from the definitions of the Securities and Exchange Commission (the "SEC") set forth in Industry Guide 7 under the United States Securities Exchange Act of 1934, as amended (the "Exchange Act"). Under SEC Industry Guide 7 standards, mineralization may not be classified as a "reserve"

unless the determination has been made that the mineralization could be economically and legally produced or extracted at the time the reserve determination is made.

In addition, the terms “mineral resource”, “measured mineral resource”, “indicated mineral resource” and “inferred mineral resource” are defined in and required to be disclosed by NI 43-101; however, these terms are not defined terms under SEC Industry Guide 7 and are normally not permitted to be used in reports and registration statements filed with the SEC. Investors are cautioned not to assume that any part or all of mineral deposits in these categories will ever be converted into reserves. “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 an inferred mineral resource will ever be upgraded to a higher category. Investors are cautioned not to assume that all or any part of an inferred mineral resource exists or is economically or legally mineable. Disclosure of “contained ounces” in a resource is permitted disclosure under Canadian regulations; however, the SEC normally only permits issuers to report mineralization that does not constitute “reserves” by SEC Industry Guide 7 standards as in place tonnage and grade without reference to unit measures.

For the above reasons, information contained in this news release or in the documents referenced herein containing descriptions of our mineral deposits may not be comparable to similar information made public by U.S. companies subject to the reporting and disclosure requirements under the United States federal securities laws and the rules and regulations thereunder.

Source: Golden Star Resources Ltd.