

GOLDEN STAR RESOURCES LTD
Form 10-K
February 25, 2010

SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

FORM 10-K

x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE
ACT OF 1934

For the Fiscal Year ended December 31, 2009

Commission file number 1-12284

GOLDEN STAR RESOURCES LTD.

(Exact Name of Registrant as Specified in Its Charter)

Canada
(State or other Jurisdiction of
Incorporation or Organization)

98-0101955
(I.R.S. Employer
Identification No.)

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10901 West Toller Drive, Suite 300

Littleton, Colorado
(Address of Principal Executive Office)

80127-6312
(Zip Code)

Registrant's telephone number, including area code (303) 830-9000

Securities registered or to be registered pursuant to Section 12 (b) of the Act:

<p>Title of Each Class Common Shares Securities registered or to be registered pursuant to Section 12(g) of the Act: None</p>	<p>Name of each exchange on which registered NYSE Amex</p>
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Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 (the Act) during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. (See definition of large accelerated filer, accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act). (Check one):

Large accelerated filer: Accelerated filer: Non-accelerated filer: Smaller reporting company:
Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act) Yes No

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the Registrant was approximately \$482.2 million as of June 30, 2009, based on the closing price of the shares on the NYSE Amex as of that date of \$2.05 per share.

Number of Common Shares outstanding as at February 23, 2010: 257,407,061.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of our Definitive Proxy Statement to be filed with the Securities and Exchange Commission pursuant to Regulation 14A in connection with the 2010 Annual Meeting of Shareholders are incorporated by reference to Part III of this Annual Report on Form 10-K.

REPORTING CURRENCY, FINANCIAL AND OTHER INFORMATION

All amounts in this report are expressed in United States (US) dollars, unless otherwise indicated. Canadian currency is denoted as Cdn\$.

Financial information is presented in accordance with accounting principles generally accepted in Canada (Cdn GAAP or Canadian GAAP). Differences between accounting principles generally accepted in the US (US GAAP) and Canadian GAAP, as applicable to Golden Star Resources Ltd., are explained in Note 26 to the Consolidated Financial Statements.

References to Golden Star, the Company, we, our, and us mean Golden Star Resources Ltd., its predecessors and consolidated subsidiaries, or any one or more of them, as the context requires.

NON-GAAP FINANCIAL MEASURES

In this Form 10-K, we use the terms total cash cost per ounce and cash operating cost per ounce which are considered Non-GAAP financial measures as defined in Securities and Exchange Commission (SEC) Regulation S-K Item 10 and applicable Canadian securities law and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with Cdn GAAP or US GAAP. See Item 7 Management's Discussion and Analysis of Financial Condition and Results of Operations for a definition of these measures as used in this Form 10-K.

STATEMENTS REGARDING FORWARD-LOOKING INFORMATION

This Form 10-K contains forward-looking statements, within the meaning of Section 27A of the Securities Act of 1933, as amended and Section 21E of the Securities Exchange Act of 1934, as amended, and within the meaning of applicable Canadian securities law, with respect to our financial condition, results of operations, business prospects, plans, objectives, goals, strategies, future events, capital expenditures, and exploration and development efforts. Words such as anticipates, expects, intends, forecasts, plans, believes, seeks, estimates, may, and similar expressions (including negative and grammatical variations) tend to identify forward-looking statements.

Although we believe that our plans, intentions and expectations reflected in these forward-looking statements are reasonable, we cannot be certain that these plans, intentions or expectations will be achieved. Actual results, performance or achievements could differ materially from those contemplated, expressed or implied by the forward-looking statements contained in this Form 10-K.

These statements include comments regarding: anticipated attainment of gold production rates; production and cash operating cost estimates for 2010; anticipated commencement dates of mining and production at Prestea South and Pampe development of the Dumasi pit; production capacity, production rates, and production costs; cash operating costs generally; gold sales; mining operations and recovery rates; ore delivery; ore processing; potential mine life; permitting; establishment and estimates of Mineral Reserves and Resources; geological, environmental, community and engineering studies; expectations of the resettlement of communities; exploration efforts and activities; availability, cost and efficiency of mining equipment; ore grades; reclamation work; expected reclamation expenditures over the next five years; expected PFIC (as defined below) status in 2010 and in the future; our anticipated investing and exploration spending in 2010; identification of acquisition and growth opportunities; power costs; the ability to meet total power requirements; completion of construction of the Bogoso power plant; retention of earnings from our operations; our objectives for 2010; and sources of and adequacy of liquidity to meet capital and other needs in 2010.

The following, in addition to the factors described under Risk Factors in Item 1A below, are among the factors that could cause actual results to differ materially from the forward-looking statements:

significant increases or decreases in gold prices;

losses or gains in Mineral Reserves from changes in operating costs and/or gold prices;

failure of exploration efforts to expand Mineral Reserves around our existing mines;

unexpected changes in business and economic conditions;

inaccuracies in Mineral Reserves and non-reserves estimates;

changes in interest and currency exchange rates;

timing and amount of gold production;

unanticipated variations in ore grade, tonnes mined and crushed or milled;

unanticipated recovery or production problems;

effects of illegal mining on our properties;

changes in mining and processing costs, including changes to costs of raw materials, supplies, services and personnel;

changes in metallurgy and processing;

availability of skilled personnel, contractors, materials, equipment, supplies, power and water;

changes in project parameters or mine plans;

costs and timing of development of new Mineral Reserves;

weather, including drought or excessive rainfall in West Africa;

changes in regulatory frameworks based upon perceived climate trends;

results of current and future exploration activities;

results of pending and future feasibility studies;

acquisitions and joint venture relationships;

political or economic instability, either globally or in the countries in which we operate;

changes in regulations affecting our operations, particularly in Ghana, where our principal producing properties are located;

local and community impacts and issues, including resettlement;

availability and cost of replacing Mineral Reserves;

timing of receipt and maintenance of government approvals and permits;

unanticipated transportation costs and shipping incidents and losses;

accidents, labor disputes and other operational hazards;

environmental costs and risks;

unanticipated title issues;

competitive factors, including competition for property acquisitions;

possible litigation; and

availability of capital at reasonable rates or at all.

These factors are not intended to represent a complete list of the general or specific factors that could affect us. Your attention is drawn to other risk factors disclosed and discussed in Item 1A below. We undertake no obligation to update forward-looking statements except as may be required by applicable laws.

CONVERSION FACTORS AND ABBREVIATIONS

For ease of reference, the following conversion factors are provided:

1 acre	= 0.4047 hectare	1 mile	= 1.6093 kilometers
1 foot	= 0.3048 meter	1 troy ounce	= 31.1035 grams
1 gram per metric tonne	= 0.0292 troy ounce/short ton	1 square mile	= 2.59 square kilometers
1 short ton (2000 pounds)	= 0.9072 tonne	1 square kilometer	= 100 hectares
1 tonne	= 1,000 kg or 2,204.6 lbs	1 kilogram	= 2.204 pounds or 32.151 troy oz
1 hectare	= 10,000 square meters	1 hectare	= 2.471 acres

The following abbreviations may be used herein:

Au	= gold	m ²	= square meter
g	= gram	m ³	= cubic meter
g/t	= grams per tonne	mg	= milligram
ha	= hectare	mg/m ³	= milligrams per cubic meter
km	= kilometer	T or t	= tonne
km ²	= square kilometers	oz	= troy ounce
kg	= kilogram	ppb	= parts per billion
m	= meter	Ma	= million years

Note: All units in this report are stated in metric measurements unless otherwise noted.

GLOSSARY OF TERMS

We report our Mineral Reserves to two separate standards to meet the requirements for reporting in both Canada and the United States. Canadian reporting requirements for disclosure of mineral properties are governed by National Instrument 43-101 (NI 43-101). The definitions in NI 43-101 are adopted from those given by the Canadian Institute of Mining, Metallurgy and Petroleum. US reporting requirements for disclosure of mineral properties are governed by the SEC Industry Guide 7. These reporting standards have similar goals in terms of conveying an appropriate level of confidence in the disclosures being reported, but embody differing approaches and definitions.

We estimate and report our Mineral Resources and Mineral Reserves according to the definitions set forth in NI 43-101 and modify them as appropriate to conform to SEC Industry Guide 7 for reporting in the US. The definitions for each reporting standard are presented below with supplementary explanation and descriptions of the similarities and differences.

NI 43-101 DEFINITIONS

Mineral Reserve	The term Mineral Reserve refers to the economically mineable part of a Measured or Indicated Mineral Resource demonstrated by at least a preliminary feasibility study. The study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified. A Mineral Reserve includes diluting materials and allowances for losses that may occur when the material is mined.
Proven Mineral Reserve	The term Proven Mineral Reserve refers to the economically mineable part of a Measured Mineral Resource demonstrated by at least a preliminary feasibility study. This study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction is justified.
Probable Mineral Reserve	The term Probable Mineral Reserve refers to the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource demonstrated by at least a preliminary feasibility study. This study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction is justified.
Mineral Resource	The term Mineral Resource refers to a concentration or occurrence of diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal, and industrial minerals in or on the Earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge.
Measured Mineral Resource	The term Measured Mineral Resource refers to that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity.
Indicated Mineral Resource	The term Indicated Mineral Resource refers to that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed.

Inferred Mineral Resource	The term Inferred Mineral Resource refers to that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.
Qualified Person ⁽¹⁾	The term qualified person refers to an individual who is an engineer or geoscientist with at least five years of experience in mineral exploration, mine development or operation or mineral project assessment, or any combination of these, has experience relevant to the subject matter of the mineral project and the technical report and is a member in good standing of a professional association.

SEC INDUSTRY GUIDE 7 DEFINITIONS

reserve	The term reserve refers to that part of a mineral deposit which could be economically and legally extracted or produced at the time of the reserve determination. Reserves must be supported by a feasibility ⁽²⁾ study done to bankable standards that demonstrates the economic extraction. (bankable standards implies that the confidence attached to the costs and achievements developed in the study is sufficient for the project to be eligible for external debt financing.) A reserve includes adjustments to the in-situ tonnes and grade to include diluting materials and allowances for losses that might occur when the material is mined.
proven reserve	The term proven reserve refers to reserves for which (a) quantity is computed from dimensions revealed in outcrops, trenches, workings or drill holes; grade and/or quality are computed from the results of detailed sampling and (b) the sites for inspection, sampling and measurement are spaced so closely and the geologic character is so well defined that size, shape depth and mineral content of reserves are well-established.
probable reserve	The term probable reserve refers to reserves for which quantity and grade and/or quality are computed from information similar to that used for proven (measured) reserves, but the sites for inspection, sampling, and measurement are farther apart or are otherwise less adequately spaced. The degree of assurance, although lower than that for proven reserves, is high enough to assume continuity between points of observation.
mineralized material ⁽³⁾	The term mineralized material refers to material that is not included in the reserve as it does not meet all of the criteria for adequate demonstration for economic or legal extraction.
non-reserves	The term non-reserves refers to mineralized material that is not included in the reserve as it does not meet all of the criteria for adequate demonstration for economic or legal extraction.
exploration stage	An exploration stage prospect is one which is not in either the development or production stage.
development stage	A development stage project is one which is undergoing preparation of an established commercially mineable deposit for its extraction but which is not yet in production. This stage occurs after completion of a feasibility study.
production stage	A production stage project is actively engaged in the process of extraction and beneficiation of Mineral Reserves to produce a marketable metal or mineral product.

(1.) Industry Guide 7 does not require designation of a qualified person.

(2.) For Industry Guide 7 purposes the feasibility study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction is justified.

(3.) This category is substantially equivalent to the combined categories of Measured Mineral Resource and Indicated Mineral Resource specified in NI 43-101.

ADDITIONAL DEFINITIONS

alteration any change in the mineral composition of a rock brought about by physical or chemical means

arsenopyrite a gray-to-white metallic mineral consisting of sulfide of iron and arsenic

Archean the earliest eon of geologic time, dating from about 3800-2500 million years ago

assay a measure of the valuable mineral content

Au gold

bio-oxidation a processing method that uses bacteria to oxidize refractory sulfide ore to make it amenable to normal oxide ore processing techniques such as carbon-in-leach

Birimian a thick and extensive sequence of Proterozoic age metamorphosed sediments and volcanics first identified in the Birim region of southern Ghana

cash operating cost total cash costs for the period less production royalties and production taxes

CIL or carbon-in-leach an ore processing method involving the use of cyanide where activated carbon which has been added to the leach tanks is used to absorb gold as it is leached by cyanide

craton a stable relatively immobile area of the earth's crust

cut-off grade when determining economically viable Mineral Reserves, the lowest grade of mineralized material that qualifies as ore, i.e. that can be mined and processed at a profit

cyanidation the process of introducing cyanide to ore to recover gold

diamond drilling rotary drilling using diamond-set or diamond-impregnated bits, to produce a solid continuous core of rock sample

dip the angle that a structural surface, a bedding or fault plane, makes with the horizontal, measured perpendicular to the strike of the structure

diorite a group of intrusive rocks intermediate in composition between acidic and basic, characteristically composed of dark-colored amphibole, acid plagioclase, pyroxene and sometimes a small amount of quartz.

disseminated where minerals occur as scattered particles in the rock

doré unrefined gold bullion bars containing various impurities such as silver, copper and mercury, which will be further refined to near pure gold

fault a surface or zone of rock fracture along which there has been displacement

feasibility study a comprehensive study of a mineral deposit in which all geological, engineering, legal, operating, economic, social, environmental and other relevant factors are considered in sufficient detail that it could reasonably serve as the basis for a final decision by a financial institution to finance the development of the deposit for mineral production.

formation a distinct layer of sedimentary rock of similar composition

gabbro a group of dark-colored basic intrusive igneous rocks (the intrusive equivalent to basalt)

gabbroic rock masses made up of gabbro and other similar dark-colored basic igneous rock

geochemistry the study of the distribution and amounts of the chemical elements in minerals, ores, rocks, solids, water, and the atmosphere

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geochemical prospecting a prospecting technique which measures the content of certain metals in soils and rocks used to define anomalies for further testing

geophysics the study of the mechanical, electrical, gravitational and magnetic properties of the earth's crust

geophysical surveys a survey method used primarily in the mining industry as an exploration tool, applying the methods of physics and engineering to the earth's surface

geotechnical the study of ground stability

grade quantity of metal per unit weight of host rock

greenstone a sequence of usually metamorphosed volcanic-sedimentary rock assemblages

granodiorite a group of coarse-grained plutonic rocks intermediate in composition between quartz diorite and quartz monzonite containing quartz, plagioclase, potassium feldspar with biotite and hornblende

granophyric of or pertaining to granophyre which is an igneous rock containing mainly of crystals of feldspar and quartz that have crystallized together

heap leach a mineral processing method involving the crushing and stacking of an ore on an impermeable liner upon which solutions are sprayed to dissolve metals i.e. gold, copper etc.; the solutions containing the metals are then collected and treated to recover the metals

host rock the rock in which a mineral or an ore body may be contained

hydrothermal the products of the actions of heated water, such as a mineral deposit precipitated from a hot solution

in-situ in its natural position

laterite a reddish mixture of clayey iron and aluminum oxides and hydroxides formed by the weathering of basalt under humid, tropical conditions.

life-of-mine a term commonly used to refer to the likely term of a mining operation and normally determined by dividing the tonnes of Mineral Reserve by the annual rate of mining and processing

lithology the character of the rock described in terms of its structure, color, mineral composition, grain size and arrangement of its component parts, all those visible features that in the aggregate impart individuality to the rock

mafic an adjective describing a silicate mineral or rock that is rich in magnesium and iron. Common mafic rocks include basalt and gabbro

mapped or geological mapping the recording of geologic information including rock units and the occurrence of structural features, and mineral deposits on maps

metavolcanic a volcanic rock which shows evidence of having been subjected to metamorphism

mineral a naturally occurring inorganic crystalline material having a definite chemical composition

mineralization a natural accumulation or concentration in rocks or soil of one or more potentially economic minerals, also the process by which minerals are introduced or concentrated in a rock

National Instrument 43-101 or NI 43-101 standards of disclosure for mineral projects prescribed by the Canadian Securities Administration

non-refractory ore containing gold that can be satisfactorily recovered by basic gravity concentration or simple cyanidation

outcrop that part of a geologic formation or structure that appears at the surface of the earth

open pit or open cut surface mining in which the ore is extracted from a pit or quarry, the geometry of the pit may vary with the characteristics of the ore body

ore mineral bearing rock that can be mined and treated profitably under current or immediately foreseeable economic conditions

ore body a mostly solid and fairly continuous mass of mineralization estimated to be economically mineable

ore grade the average weight of the valuable metal or mineral contained in a specific weight of ore i.e. grams per tonne of ore

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oxide gold bearing ore which results from the oxidation of near surface sulfide ore

Precambrian period of geologic time, prior to 700 million years ago

preliminary assessment a study that includes an economic analysis of the potential viability of Mineral Resources taken at an early stage of the project prior to the completion of a preliminary feasibility study

preliminary feasibility study and **pre-feasibility study** each mean a comprehensive study of the viability of a mineral project that has advanced to a stage where the mining method, in the case of underground mining, or the pit configuration in the case of an open pit, has been established and an effective method of mineral processing has been determined, and includes a financial analysis based on reasonable assumptions of technical, engineering, legal, operating, economic, social, and environmental factors and the evaluation of other relevant factors which are sufficient for a qualified person, acting reasonably, to determine if all or part of the Mineral Resource may be classified as a Mineral Reserve

Proterozoic the more recent time division of the Precambrian; rocks aged between 2,500 million and 550 million years old

put a financial instrument that provides the right, but not the obligation, to sell a specified number of ounces of gold at a specified price

pyrite common sulfide of iron

QA/QC Quality Assurance/Quality Control is the process of controlling and assuring data quality for assays and other exploration and mining data

quartz a mineral composed of silicon dioxide, SiO₂ (silica)

RAB (rotary air blast) drilling relatively inexpensive and quick exploration drilling method returning rock chips from the drill hole using high pressure air

RC (reverse circulation) drilling a drilling method using a tri-cone bit, during which rock cuttings are pushed from the bottom of the drill hole to the surface through an outer tube, by liquid and/or air pressure moving through an inner tube

reef general term that typically refers to a tabular ore body

refractory ore containing gold that cannot be satisfactorily recovered by basic gravity concentration or simple cyanidation

resettlement the relocation or resettlement of a community or part of a community

rock indurated naturally occurring mineral matter of various compositions

sampling and analytical variance/precision an estimate of the total error induced by sampling, sample preparation and analysis

schist rocks derived from clays and muds which have passed through a series of metamorphic processes involving the production of shales, slates and phyllites as intermediate steps

sediment particles transported by water, wind or ice

sedimentary rock rock formed at the earth's surface from solid particles, whether mineral or organic, which have been moved from their position of origin and re-deposited

sericitic a rock with abundant amounts of sericite, a white fine grained potassium mica occurring as an alteration product of various aluminosilicate minerals

shear a form of strain resulting from stresses that cause or tend to cause contiguous parts of a body of rock to slide relatively to each other in a direction parallel to their plane of contact

shield a large area of exposed basement rocks often surrounded by younger rocks, e.g. Guiana Shield

stratigraphic or **stratigraphically** geology that deals with the origin and succession of strata

strike the direction or trend that a structural surface, e.g. a bedding or fault plane, takes as it intersects the horizontal

strip to remove overburden in order to expose ore

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sulfide a mineral including sulfur (S) and iron (Fe) as well as other elements; metallic sulfur-bearing mineral often associated with gold mineralization

tailings fine ground wet waste material produced from ore after economically recoverable metals or minerals have been extracted

Tarkwaian a group of sedimentary rocks of Proterozoic age named after the town of Tarkwa in southern Ghana where they were found to be gold bearing

tectonic relating to the forces that produce movement and deformation of the Earth's crust

tonne metric tonne, equal to 1,000 kilograms or 2,204.6 pounds

total cash cost cost of sales costs for the period less: mining related depreciation and amortization, accretion of asset retirement obligations costs, inventory write-offs and operations-related foreign exchange gains/losses

transition ore is an ore zone lying between the oxide ore and the sulfide ore; ore material that is partially weathered and oxidized

vein a thin, sheet-like crosscutting body of hydrothermal mineralization, principally quartz

volcanics those originally molten rocks, generally fine grained, that have reached or nearly reached the earth's surface before solidifying

volcano-sedimentary rocks composed of materials of both volcanic and sedimentary origin

wall rock the rock adjacent to a vein

weathering near surface alteration and oxidation of minerals and rocks by exposure to the atmosphere or ground water

wire frame a mesh of triangles used to define a volume in generating computerized geological Resources.

PART I

Item 1. BUSINESS

OVERVIEW OF GOLDEN STAR

We are a Canadian federally incorporated, international gold mining and exploration company producing gold in Ghana, West Africa. We also conduct gold exploration in other countries in West Africa and in South America. Golden Star Resources Ltd. was established under the *Canada Business Corporations Act* on May 15, 1992 as a result of the amalgamation of South American Goldfields Inc., a corporation incorporated under the federal laws of Canada, and Golden Star Resources Ltd., a corporation originally incorporated under the provisions of the *Alberta Business Corporations Act* on March 7, 1984 as Southern Star Resources Ltd. Our principal office is located at 10901 West Toller Drive, Suite 300, Littleton, Colorado 80127, and our registered and records offices are located at 66 Wellington St. W, Suite 4200, P.O. Box 20, Toronto Dominion Bank Tower Toronto Dominion Centre, Toronto, Ontario M5K 1N6.

We own controlling interests in several gold properties in southwest Ghana:

Through a 90% owned subsidiary, Golden Star (Bogoso/Prestea) Limited (GSBPL), we own and operate the Bogoso/Prestea gold mining and processing operations (Bogoso/Prestea) located near the town of Bogoso, Ghana. We have a nominal 3.5 million tonnes per year processing facility at Bogoso/Prestea that uses bio-oxidation technology to treat refractory sulfide ore (sulfide plant). In addition, Bogoso/Prestea has a carbon-in-leach processing facility next to the sulfide plant which is suitable for treating oxide ores (oxide plant). Bogoso/Prestea produced and sold 170,499 ounces of gold in 2008 and 186,054 ounces in 2009.

Through another 90% owned subsidiary, Golden Star (Wassa) Limited (GSWL), we own and operate the Wassa open-pit gold mine and carbon-in-leach processing plant (Wassa), located approximately 35 km east of Bogoso/Prestea. The design capacity of the carbon-in-leach processing plant at Wassa is nominally 3.0 million tonnes per annum but varies depending on the ratio of hard to soft ore. GSWL also owns the Hwini-Butre and Benso concessions (the HBB properties) in southwest Ghana. The Benso mine began shipping ore to Wassa late in 2008, and the Hwini-Butre mine began shipping ore to Wassa in May 2009. The Hwini-Butre and Benso concessions are located approximately 80 and 50 km, respectively, by road south of Wassa. Wassa/HBB produced and sold 125,427 ounces of gold in 2008 and 223,848 ounces in 2009.

We also hold interests in several gold exploration projects in Ghana and elsewhere in West Africa including Sierra Leone, Burkina Faso, Niger and Côte d'Ivoire, and hold exploration properties in South America.

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All of our operations, with the exception of certain exploration projects, transact business in US dollars and keep financial records in US dollars. Our accounting records are kept in accordance with Canadian GAAP. Our fiscal year ends December 31. We are a reporting issuer or the equivalent in all provinces of Canada, in Ghana and in the United States and file disclosure documents with securities regulatory authorities in Canada and Ghana and with the United States Securities and Exchange Commission.

GOLD SALES AND PRODUCTION

Ghana has been a significant gold producing country for over 100 years with AngloGold Ashanti's Obuasi mine and our inactive underground mine at Prestea historically being the two major producers. Several other areas in Ghana have also produced large amounts of gold. Annual gold production in Ghana has exceeded two million ounces in recent years.

Currently, all our gold production is shipped to a South African gold refinery in accordance with a long-term gold sales contract. Our gold is sold in the form of doré bars that average approximately 90% gold by weight with the remaining portion being silver and other metals. The sales price is based on the London P.M. fix on the day of shipment to the refinery.

GOLD PRICE HISTORY

The price of gold is volatile and is affected by numerous factors all of which are beyond our control such as the sale or purchase of gold by various central banks and financial institutions, inflation, recession, fluctuation in the relative values of the US dollar and foreign currencies, changes in global and regional gold demand, and the political and economic conditions of major gold-producing countries throughout the world.

The following table presents the high, low and average London P.M. fixed prices for gold per ounce on the London Bullion Market over the past ten years.

Year	High	Low	Average	Average Price Received by Golden Star
2000	313	264	279	280
2001	293	256	271	271
2002	349	278	310	311
2003	416	320	363	364
2004	454	375	410	410
2005	537	411	445	446
2006	725	525	603	607
2007	841	608	695	713
2008	1,011	713	872	870
2009	1,213	810	972	978
To February 24, 2010	1,153	1,058	1,107	NA

The following diagram depicts the organizational structure of Golden Star and its significant subsidiaries:

BUSINESS STRATEGY AND DEVELOPMENT

Our business and development strategy has been focused primarily on the acquisition of producing and development-stage gold properties in Ghana and on the exploration, development and operation of these properties. We have also pursued exploration activities in South America and other countries in West Africa.

We acquired Bogoso in 1999 and have operated a nominal 1.5 million tonne per annum carbon-in-leach (CIL) processing plant most of the time since then to process oxide and other non-refractory ores (Bogoso oxide plant). In 2001, we acquired the Prestea property located adjacent to our Bogoso property and mined surface deposits at Prestea from late 2001 to late 2006. In late 2002, we acquired Wassa, and constructed a new nominal 3.0 million tonne per annum CIL processing plant at Wassa, which began commercial operation in April 2005. In July 2007, we completed construction and development of a new nominal 3.5 million tonnes per annum processing facility at Bogoso/Prestea that uses bio-oxidation technology to treat refractory sulfide ore (Bogoso sulfide plant).

In late 2005, we acquired the HBB properties consisting of the Benso and Hwini-Butre properties. Benso development activities started in late 2007, and in the third quarter of 2008, we began trucking ore from the Benso mine to the Wassa plant for processing. Hwini-Butre development was initiated in the fourth quarter of 2008, and in May 2009 the Hwini-Butre mine began shipping ore to the Wassa plant for processing.

Our overall objective is to grow our business to become a mid-tier gold producer. We continue to evaluate potential acquisition and merger opportunities that could further increase our annual gold production. However, we presently have no agreement or understanding with respect to any specific potential transaction.

In addition to our gold mining and development activities, we actively explore for gold in West Africa and South America, investing approximately \$15.8 million on such activities during 2008 and approximately \$9.0 million during 2009. We are conducting regional reconnaissance projects in Ghana, Cote d'Ivoire and Sierra Leone and have drilled more advanced targets in Ghana, Niger and Burkina Faso. We are also evaluating gold properties in Brazil. See Item 2 Description of Properties for additional details on our assets.

GOLD PRODUCTION AND UNIT COSTS

The following table shows historical and projected gold production and cash operating costs.

Production and Cost Per Ounce^{(1) (2)}	2007	2008	2009	2010 Projected
BOGOSO/PRESTEA				
Gold Sales (thousands of ounces)	120.2	170.5	186.1	200.0
Cash Operating Cost (\$/oz)	766	837	705	650
WASSA/HBB				
Production (thousands of ounces)	126.1	125.4	223.8	200.0
Cash Operating Cost (\$/oz)	443	554	447	520
CONSOLIDATED				
Consolidated Total Sales (thousands of ounces)	246.3	295.9	409.9	400.0
Consolidated Cash Operating Cost (\$/oz)	602	717	564	585

(1) See Management's Discussion and Analysis of Financial Condition and Results of Operations for definitions of cash operating cost per ounce.

(2) Gold production is shown on a 100% basis, which represents our current beneficial interest in gold production and revenues. The Government of Ghana, which has a 10% carried interest in Bogoso/Prestea and Wassa/HBB, would receive 10% of any dividends distributed from Bogoso/Prestea and Wassa/HBB once all capital costs have been repaid.

See Management's Discussion and Analysis of Financial Condition and Results of Operations for discussion of increasing trends in gold sales.

MINERAL RESERVES

Our Proven and Probable Mineral Reserves are estimated in conformance with definitions set out in NI 43-101. We have filed Technical Reports regarding the initial disclosure of Mineral Reserves and Mineral Resources for Bogoso / Prestea and Wassa/ HBB as required by NI 43-101. The Proven and Probable Mineral Reserves are those ore tonnages contained within economically optimized pits, configured using current and predicted mining and processing methods and related operating costs and performance parameters. We believe that our Mineral Reserves are estimated on a basis consistent with the definition of proven and probable reserves prescribed for use in the US by the US Securities and Exchange Commission and set forth in SEC Industry Guide 7. See our Glossary of Terms.

In estimating Mineral Reserves, we first design an economically optimized pit based on all operating costs, including the costs to mine. Since all material lying within the optimized pit will be mined, the cut-off grade used in determining our Mineral Reserves is estimated based on the material that, having been mined, is economic to transport and process without regard to primary mining costs (i.e. mining costs that were appropriately applied at the economic optimization stage).

The QA/QC controls program used in connection with the estimation of our Mineral Reserves consists of regular insertion and analysis of blanks and standards to monitor laboratory performance. Blanks are used to check for contamination. Standards are used to check for grade-dependence biases.

The following table summarizes our estimated Proven and Probable Mineral Reserves as of December 31, 2009 and December 31, 2008:

PROVEN AND PROBABLE MINERAL RESERVES

Property Mineral Reserve Category	As at December 31, 2009			As at December 31, 2008		
	Tonnes (millions)	Gold Grade (g/t)	Ounces (millions)	Tonnes (millions)	Gold Grade (g/t)	Ounces (millions)
Bogoso/Prestea(1)						
Proven Mineral Reserves						
Non-refractory	1.1	1.60	0.06	1.2	1.89	0.08
Refractory	9.7	3.08	0.96	9.6	3.34	1.03
Total Proven	10.8	2.92	1.01	10.8	3.18	1.11
Probable Mineral Reserves						
Non-refractory	5.0	2.60	0.42	3.9	2.90	0.36
Refractory	15.5	2.65	1.32	9.1	3.07	0.90
Total Probable	20.5	2.64	1.73	13.0	3.02	1.26
Total Proven and Probable						
Non-refractory	6.1	2.42	0.47	5.1	2.66	0.43
Refractory	25.1	2.81	2.27	18.7	3.21	1.93
Total Bogoso/Prestea Proven and Probable	31.2	2.74	2.75	23.8	3.09	2.36
Wassa(2)						
Proven Mineral Reserves						
Non-refractory	0.8	1.91	0.05	0.4	1.01	0.01
Probable Mineral Reserves						
Non-refractory	16.3	1.79	0.94	11.3	2.47	0.90
Total Wassa Proven & Probable	17.1	1.79	0.99	11.7	2.42	0.91
Totals						
Proven Mineral Reserves						
Non-refractory	1.9	1.73	0.11	1.6	1.68	0.09
Refractory	9.7	3.08	0.96	9.6	3.34	1.03
Total Proven	11.6	2.86	1.06	11.2	3.10	1.12
Probable Mineral Reserves						
Non-refractory	21.3	1.98	1.35	15.2	2.58	1.26
Refractory	15.5	2.65	1.32	9.1	3.07	0.90
Total Probable	36.8	2.26	2.67	24.3	2.76	2.16
Total Proven and Probable						
Non-refractory	23.2	1.96	1.46	16.8	2.49	1.35
Refractory	25.1	2.81	2.27	18.7	3.21	1.93
Total Proven and Probable	48.3	2.40	3.73	35.5	2.87	3.28

Notes to the Mineral Reserve Statement:

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- (1) The stated Mineral Reserve for Bogoso/Prestea includes Prestea South, Pampe and Mampon.
- (2) The stated Mineral Reserve for Wassa includes the Hwini-Butre and Benso properties.
- (3) The stated Mineral Reserves have been prepared in accordance with Canada's National Instrument 43-101 Standards of Disclosure for Mineral Projects 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 Reserves are equivalent to Proven and Probable Reserves as defined by the SEC Industry Guide 7. 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.
- (4) The 2009 Mineral Reserves were prepared under the supervision of Mr. Karl Smith, Vice President Technical Services for the Company. Mr. Smith is a Qualified Person as defined by Canada's National Instrument 43-101. The 2008 Mineral Reserves were prepared under the supervision of Mr. Peter Bourke, P.Eng., the former Vice President Technical Services for the Company. Mr. Bourke is a Qualified Person as defined by Canada's National Instrument 43-101.
- (5) The Mineral Reserves at December 31, 2009 were estimated using a gold price of \$850 per ounce, which is approximately equal to the three-year average gold price. At December 31, 2008, Mineral Reserves were estimated using a gold price of \$700 per ounce.

- (6) The terms non-refractory and refractory refer to the metallurgical characteristics of the ore and are defined in the Glossary of Terms. We plan to process the refractory ore in our sulfide bio-oxidation plant at Bogoso and to process the non-refractory ore using our more traditional gravity, flotation and/or cyanidation techniques.
- (7) 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. The parameters for the pit optimization program are based on a gold price of \$850 per ounce, historical and projected operating costs at Bogoso/Prestea, Wassa and Hwini-Butre and Benso. Metallurgical recoveries are based on historical performance or estimated from test work and typically range from 80% to 95% for non-refractory ores and from 70% to 85% for refractory ores. A government royalty of 6% is allowed as are other applicable royalties.
- (8) Mineral Reserves are expressed on a 100% basis. Our share of the Mineral Reserves is subject to the Government of Ghana's 10% carried interest which entitles it to a 10% dividend once our capital costs have been recovered.
- (9) Numbers may not add due to rounding.

Stockpiled Ores

Stockpiled ores are included in the Mineral Reserves for both Bogoso/Prestea and Wassa. Details of the proven stockpiles included in the Mineral Reserves at year-end 2009 and 2008 are summarized in the table below.

PROVEN AND PROBABLE STOCKPILES INCLUDED IN MINERAL RESERVES

Property Mineral Reserve Category	As at December 31, 2009			As at December 31, 2008		
	Tonnes (millions)	Gold Grade (g/t)	Ounces (millions)	Tonnes (millions)	Gold Grade (g/t)	Ounces (millions)
Bogoso/Prestea						
Proven Stockpiles						
Non-refractory	0.0	2.32	0.00	0.0	2.32	0.00
Refractory	0.1	2.67	0.01	0.1	2.32	0.01
Total Proven Stockpiles	0.1	2.57	0.01	0.1	2.32	0.01
Probable Stockpiles						
Non-refractory	0.0	0.00	0.00	0.0	0.00	0.00
Refractory	0.7	2.34	0.05	0.7	2.52	0.05
Total Probable Stockpiles	0.7	2.34	0.05	0.7	2.52	0.05
Total Proven and Probable						
Non-refractory	0.0	2.32	0.00	0.0	2.32	0.00
Refractory	0.7	2.37	0.06	0.8	2.50	0.06
Total Bogoso/Prestea Proven and Probable	0.8	2.37	0.06	0.8	2.49	0.06
Wassa						
Proven Stockpiles						
Non-refractory	0.3	1.08	0.01	0.3	0.98	0.01
Probable Stockpiles						
Non-refractory	2.7	0.52	0.05	0.8	0.45	0.01
Total Wassa Proven and Probable Stockpiles	3.0	0.57	0.06	1.1	0.56	0.02
Totals						
Proven Stockpiles						
Non-refractory	0.3	1.20	0.01	0.4	1.10	0.01
Refractory	0.1	2.67	0.01	0.1	2.32	0.01
Total Proven Stockpiles	0.4	1.49	0.02	0.5	1.36	0.02
Probable Stockpiles						
Non-refractory	2.7	0.52	0.05	0.8	0.45	0.01
Refractory	0.7	2.34	0.05	0.7	2.52	0.05
Total Probable Stockpiles	3.4	0.87	0.10	1.5	1.39	0.07
Total Proven and Probable Stockpiles						
Non-refractory	3.0	0.59	0.06	1.2	0.61	0.02
Refractory	0.7	2.37	0.06	0.8	2.50	0.06
Total Proven and Probable Stockpiles	3.8	0.93	0.11	1.9	1.36	0.08

Reconciliation of Mineral Reserves as shown under NI 43-101 and under SEC Industry Guide 7

Since we report our Mineral Reserves to both NI 43-101 and SEC Industry Guide 7 standards, it is possible for our Mineral Reserve figures to vary between the two. Where such a variance occurs it will arise from the differing requirements for reporting Mineral Reserves. For example,

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NI 43-101 has a minimum requirement that Mineral Reserves be supported by a pre-feasibility study, whereas SEC Industry Guide 7 requires support from a detailed feasibility study that demonstrates that economic extraction is justified.

For the Mineral Reserves at December 31, 2009 and 2008, there is no difference between the Mineral Reserves as disclosed under NI 43-101 and those disclosed under SEC Industry Guide 7, and therefore no reconciliation is provided.

Reconciliation of Proven and Probable Mineral Reserves December 31, 2008 to December 31, 2009

	Tonnes (millions)	Contained Ounces (millions)	Tonnes (% of Opening)	Ounces (% of Opening)
Mineral Reserves at December 31, 2008	35.5	3.28	100%	100%
Gold Price Increase(1)	4.9	0.17	14%	5%
Exploration Changes(2)	5.9	0.25	17%	7%
Mining Depletion(3)	(4.9)	(0.47)	(14)%	(14)%
Engineering(4)	6.8	0.52	19%	16%
Mineral Reserves at December 31, 2009(5)	48.3	3.73	136%	114%

Notes to the reconciliation of Mineral Reserves:

- (1) Gold Price Increase represents changes resulting from an increase in gold price used in the Mineral Reserve estimates from \$700 per ounce in 2008 to \$850 per ounce in 2009.
- (2) Exploration Changes include changes due to geological modeling, data interpretation and resource block modeling methodology as well as due to exploration discovery of new mineralization.
- (3) Mining Depletion represents the 2008 Mineral Reserve within the volume mined in 2009 with adjustments to account for stockpile addition and depletions during 2009 and therefore does not correspond with 2009 actual gold production.
- (4) Engineering includes changes as a result of engineering facts such as changes in operating costs, mining dilution and recovery assumptions, metallurgical recoveries, pit slope angles and other mine design and permitting considerations.
- (5) Numbers may not add due to rounding.

NON-RESERVES MEASURED AND INDICATED MINERAL RESOURCES***Cautionary Note to US Investors concerning estimates of Measured and Indicated Mineral Resources***

This section uses the terms Measured Mineral Resources and Indicated Mineral Resources. We advise US investors that while those terms are recognized and required by Canadian regulations, the US Securities and Exchange Commission does not recognize them. **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.**

Our Measured and Indicated Mineral Resources which are reported in this Form 10-K **do not include** that part of our Mineral Resources that have been converted to Proven and Probable Mineral Reserves as shown above, and have been estimated in compliance with definitions set out in NI 43-101. Golden Star Resources has filed Technical Reports regarding the initial disclosure of Mineral Reserves and Mineral Resources for Bogoso/Prestea, Wassa and the HBB properties as required by NI 43-101 regulations. See our Glossary of Terms.

Except as otherwise provided, the total Measured and Indicated Mineral Resources for all properties have been estimated at an economic cut-off grade based on a gold price of \$1000 per ounce for December 31, 2009 and \$800 per ounce for December 31, 2008 and on economic parameters deemed realistic. The economic cut-off grades for Mineral Resources are lower than those for Mineral Reserves and are indicative of the fact that the Mineral Resource estimates include material that may become economic under more favorable conditions including increases in gold price.

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The following table summarizes our estimated non-reserves Measured and Indicated Mineral Resources as of December 31, 2009 as compared to the totals for December 31, 2008:

Property	Measured		Indicated		Measured & Indicated	
	Tonnes (millions)	Gold Grade (g/t)	Tonnes (millions)	Gold Grade (g/t)	Tonnes (millions)	Gold Grade (g/t)
Bogoso/Prestea(1)	4.7	1.90	12.9	2.20	17.6	2.12
Prestea Underground			1.4	13.36	1.4	13.36
Wassa	0.1	0.82	4.3	0.89	4.4	0.89
Benso			0.2	1.73	0.2	1.73
Hwini-Butre (9)			0.3	5.38	0.3	5.38
Goulagou(8)			2.7	1.75	2.7	1.75
Total 2009	4.8	1.87	21.8	2.66	26.6	2.52
Total 2008	5.4	2.24	21.6	2.89	27.0	2.76

Notes to Non-Reserves Measured and Indicated Mineral Resources Table:

- (1) The Mineral Resources for Bogoso/Prestea include Pampe and Mampon.
- (2) The Mineral Resources were estimated in accordance with the definitions and requirements of Canada's National Instrument 43-101. The Mineral Resources are equivalent to Mineralized Material as defined by the SEC Industry Guide 7.
- (3) The Mineral Resources, other than for Goulagou (see Note 8), were estimated using optimized pit shells at a gold price of \$1,000 per ounce from which the Mineral Reserves have been subtracted. Other than gold price, the same optimized pit shell parameters and modifying factors used to determine the Mineral Reserves were used to determine the Mineral Resources. The Prestea Underground resource was estimated using a \$1,000 per ounce gold price and operating cost estimates. In 2008, we used a gold price of \$800 per ounce for the optimized shell.
- (4)