THIS CIRCULAR IS IMPORTANT AND REQUIRES YOUR IMMEDIATE ATTENTION

If you are in any doubt as to any aspect of this circular or as to the action to be taken, you should consult your stockbroker or other registered dealer in securities, bank manager, solicitor, professional accountant or other professional adviser.

If you have sold or transferred all your shares in **Shandong Gold Mining Co., Ltd.**, you should at once hand this circular to the purchaser(s) or transferee(s) or to the bank, stockbroker or other agent through whom the sale or transfer was effected for transmission to the purchaser(s) or transferee(s).

SD-GOLD

SHANDONG GOLD MINING CO., LTD.
山東黃金礦業股份有限公司

(a joint stock company incorporated in the People's Republic of China with limited liability)

(Stock Code: 1787)

(1) PROPOSED ACQUISITION OF XILING GOLD MINE EXPLORATION RIGHT
(2) PROPOSED AMENDMENTS TO THE ARTICLES OF ASSOCIATION AND
(3) NOTICE OF 2024 SECOND EXTRAORDINARY GENERAL MEETING

Independent Financial Adviser to
the Independent Board Committee and the Independent Shareholders

Lego Corporate Finance Limited
力高企業融資有限公司

A notice convening the 2024 second extraordinary general meeting (the "**EGM**") of Shandong Gold Mining Co., Ltd. (the "**Company**") to be held at the conference room of the Company, No. 2503, Jingshi Road, Licheng District, Jinan, Shandong Province, the PRC at 10:00 a.m. on Thursday, 7 March 2024 is set out on pages III-1 to III-2 of this circular. A letter from the Independent Board Committee containing its recommendation to the Independent Shareholders is set out on page 38 of this circular. A letter of advice from the Independent Financial Adviser to the Independent Board Committee and the Independent Shareholders is set out on pages 39 to 61 of this circular.

The proxy form for use in connection with the EGM is enclosed herewith. The proxy form is also published on the website of The Stock Exchange of Hong Kong Limited (www.hkexnews.hk) and the Company's website (http://www.sdhjgf.com.cn).

Any shareholder(s) of the Company (the "**Shareholders**") entitled to attend and vote at the EGM is(are) entitled to appoint one or more proxies to attend and vote on his(their) behalf. A proxy need not be a shareholder of the Company. If you intend to appoint a proxy to attend the EGM and vote on your behalf, you are requested to complete the accompanying proxy form in accordance with the instructions printed thereon and return it by hand, by post or by facsimile to the Company's H Share registrar, Tricor Investor Services Limited at 17/F, Far East Finance Centre, 16 Harcourt Road, Hong Kong (for H Shareholders only) as soon as possible and in any event not later than 24 hours before the time appointed for the holding of the EGM (i.e. before 10:00 a.m. on Wednesday, 6 March 2024) or any adjournment thereof (as the case may be). Completion and return of the proxy form will not preclude you from attending and voting at the EGM or any adjournment thereof should you so wish.

21 February 2024

CONTENTS

In this circular, unless otherwise indicated in the context, the following expressions have the meanings set out below:

"A Share(s)"	the domestic share(s) issued by the Company to domestic investors with a nominal value of RMB1.00 each, which are listed on the Shanghai Stock Exchange;
"Acquisition"	the acquisition of Xiling Gold Mine Exploration Right by the Company from Shandong Gold Exploration in accordance with the terms and conditions of the Acquisition Agreement;
"Acquisition Agreement"	the exploration right transfer contract in respect to the Acquisition signed by the Company and Shandong Gold Exploration on 26 January 2024;
"Articles of Association"	the articles of association of the Company, as amended from time to time;
"associate(s)"	has the meaning ascribed to it under the Hong Kong Listing Rules;
"Board"	the board of Directors;
"Company"	Shandong Gold Mining Co., Ltd. (山東黃金礦業股份有限公司), a joint stock company incorporated in the PRC under the laws of the People's Republic of China with limited liability on 31 January 2000, the H Shares and A Shares of which are listed on the Main Board of the Hong Kong Stock Exchange (Stock Code: 1787) and the Shanghai Stock Exchange (Stock Code: 600547) respectively;
"Completion"	the completion of the Acquisition in accordance with the terms and conditions of the Acquisition Agreement;
"connected person(s)"	has the meaning ascribed to it under the Hong Kong Listing Rules;
"connected transaction"	has the meaning ascribed to it under the Hong Kong Listing Rules;
"controlling Shareholder(s)"	has the meaning ascribed to it under the Hong Kong Listing Rules;
"Director(s)"	the director(s) of the Company;

"EGM"	the 2024 second extraordinary general meeting of the Company to be held at the conference room of the Company, No. 2503, Jingshi Road, Licheng District, Jinan, Shandong Province, the PRC at 10:00 a.m. on Thursday, 7 March 2024;
"Exploration Report"	the Exploration Report on the Xiling Gold Mine in the Sanshandao Mine Area of Laizhou City, Shandong Province, prepared by Shandong Gold Geological Mine Exploration Co., Ltd. in May 2023;
"Feasibility Study Report"	the Feasibility Study on the Exploration of the Xiling Gold Mine in the Sanshandao Mine Area of Laizhou City, Shandong Province, prepared by China ENFI Engineering Corporation;
"Force Majeure"	any event which is unforeseeable, unavoidable and insurmountable at the time the Acquisition Agreement was entered by parties, including but not limited to natural disasters such as earthquakes, floods, typhoons, hailstorms and submarine surges, etc., together with insufficient production scale, designation of nature reserves or restricted mining zones, etc. due to fires, explosions, wars, government expropriation and requisition, policy shutdown, epidemic control and policy change;
"Group"	the Company and its subsidiaries;
"H Share(s)"	the overseas-listed foreign invested share(s) in the Company's share capital, with a nominal value of RMB1.00 each, which are listed on the Hong Kong Stock Exchange;
"Hong Kong"	Hong Kong Special Administrative Region of the PRC;
"Hong Kong Listing Rules"	the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited, as amended, supplemented or otherwise modified from time to time;
"Hong Kong Stock Exchange"	The Stock Exchange of Hong Kong Limited;
"Independent Board Committee"	an independent committee of the Board comprising all the independent non-executive Directors, established for the purpose of advising the Independent Shareholders on the terms of the Acquisition Agreement and the transactions contemplated thereunder;

"Independent Shareholders"	Shareholders other than SDG Group Co. and its associates;
"Latest Practicable Date"	16 February 2024, being the latest practicable date prior to the printing of this circular for ascertaining certain information contained herein;
"Lego" or "Independent Financial Adviser"	Lego Corporate Finance Limited, a licensed corporation under the SFO to carry out Type 6 (advising on corporate finance) regulated activities, being the independent financial adviser appointed for the purposes of advising the Independent Board Committee and the Independent Shareholders in respect of the Acquisition Agreement and the transactions contemplated thereunder;
"PRC" or "China"	the People's Republic of China, for the purpose of this circular, shall exclude Hong Kong, the Macau Special Administrative Region of the PRC and Taiwan;
"RMB"	Renminbi, the lawful currency of the PRC;
"SDG Group"	SDG Group Co. and all of its subsidiaries;
"SDG Group Co."	Shandong Gold Group Co., Ltd. (山東黃金集團有限公司), a company established in the PRC with limited liability on 16 July 1996, the controlling Shareholder of the Company. As of the Latest Practicable Date, SDG Group Co. is held as to 70%, 20% and 10% by Shandong Provincial People's Government State-owned Assets Supervision and Administration Commission (山東省人民政府國有資產監督管理委員會), Shandong Guohui Investment Holding Group Co., Ltd. (山東國惠投資控股集團有限公司) and Shandong Caixin Assets Operation Co., Ltd. (山東省財欣資產運營有限公司), respectively. Shandong Guohui Investment Holding Group Co., Ltd. is a limited liability company established in the PRC and is held as to 100% by Shandong Provincial People's Government State-owned Assets Supervision and Administration Commission;
"SFO"	the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong);

"Shandong Gold Exploration"	Shandong Gold Geological Mine Exploration Co., Ltd. (山東黃金地質礦產勘查有限公司), a company established in the PRC with limited liability on 3 January 2003;
"Shanghai Stock Exchange" or "SSE"	the Shanghai Stock Exchange (上海證券交易所);
"Share(s)"	share(s) in the share capital of the Company, with a nominal value of RMB1.00 each, comprising A Shares and H Shares;
"Shareholder(s)"	holder(s) of the Share(s);
"Supervisor(s)"	the supervisor(s) of the Company;
"Supervisory Committee"	the supervisory committee of the Company;
"Valuation Reference Date"	31 October 2023;
"Valuation Report"	the Valuation Report on the Exploration and Prospecting Right of the Gold Mine at Xiling Village in Laizhou City, Shandong Province issued by the Valuer, the text of which is set out in Appendix I to this circular;
"Valuer"	Beijing Zhongzhicheng International Assets Appraisal Co., Ltd. (北京中致成國際資產評估有限公司), and is independent and has no conflict of interest as regards the Company, Shandong Gold Exploration and the Target Exploration Right and their respective connected persons (where applicable), and has no personal interest in the success of the proposed Acquisition;
"Xiling Gold Mine Exploration Right" or "Target Exploration Right"	the exploration and prospecting right of the gold mine at Xiling Village in Laizhou City, Shandong Province; and
"%"	percent.

SHANDONG GOLD MINING CO., LTD.
山東黃金礦業股份有限公司

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(Stock Code: 1787)

Executive Directors:
Mr. Liu Qin *(Vice-chairman)*
Mr. Wang Shuhai
Mr. Tang Qi

Non-executive Directors:
Mr. Li Hang *(Chairman)*
Ms. Wang Xiaoling

Independent Non-executive Directors:
Mr. Wang Yunmin
Mr. Liew Fui Kiang
Ms. Zhao Feng

Registered office and headquarters in the PRC:
No. 2503 Jingshi Road
Licheng District, Jinan
Shandong Province
PRC

Principal place of business in Hong Kong:
Rooms 4003-06
China Resources Building
No. 26 Harbour Road
Wanchai
Hong Kong

21 February 2024

To the Shareholders

Dear Sir or Madam,

(1) PROPOSED ACQUISITION OF XILING GOLD MINE EXPLORATION RIGHT
(2) PROPOSED AMENDMENTS TO THE ARTICLES OF ASSOCIATION AND
(3) NOTICE OF 2024 SECOND EXTRAORDINARY GENERAL MEETING

I. INTRODUCTION

On behalf of the Board, I invite you to attend the EGM to be held at the conference room of the Company, No. 2503, Jingshi Road, Licheng District, Jinan, Shandong Province, the PRC at 10:00 a.m. on Thursday, 7 March 2024. The purpose of this circular is to issue the notice of EGM and provide you with all reasonably necessary information to enable you to make an informed decision as to the resolutions to be proposed at the EGM.

II. PROPOSED ACQUISITION OF XILING GOLD MINE EXPLORATION RIGHT

A. ACQUISITION OF XILING GOLD MINE EXPLORATION RIGHT

On 26 January 2024 (after trading hours), the Company and Shandong Gold Exploration entered into the Acquisition Agreement, pursuant to which Shandong Gold Exploration agreed to sell and the Company agreed to acquire the Xiling Gold Mine Exploration Right, at a consideration of RMB10,334,248,700.

The main terms of the Acquisition Agreement are as follows:

Date

26 January 2024

Parties

1. Shandong Gold Exploration (as Vendor)

2. The Company (as Purchaser)

Consideration

In connection with the acquisition of the Xiling Gold Mine Exploration Right, the consideration payable to Shandong Gold Exploration by the Company under the Acquisition Agreement was RMB10,334,248,700. The consideration was determined after arm's length negotiations between the parties with reference to the appraised value of the Xiling Gold Mine Exploration Right as at 31 October 2023 after deducting the discounted value of the transfer income payable for the Xiling Gold Mine Exploration Right. According to the Valuation Report issued by the Valuer, the appraised value of the Xiling Gold Mine Exploration Right was RMB11,028,801,300 as of 31 October 2023. According to the Notice on Issuing the Measures for the Collection of Income from the Transfer of Mineral Rights (《關於印發〈礦業權出讓收益徵收辦法〉的通知》) (Caizong [2023] No. 10), the Valuer has estimated the transfer income which is required to be paid for the Xiling Gold Mine Exploration Right in the future, the discounted value of which is RMB691,247,900.

The Valuer engaged by the Company has assets appraisal qualifications for the securities business, is competent in providing valuation services and satisfies the independence requirements. The main parameters and conclusions of the valuation are reasonable, and the Valuation Report has calculated the transfer income and the discounted value of the transfer income that need to be paid in the future for the Xiling Gold Mine Exploration Right, after taking into account the fact that the Xiling Gold Mine Exploration Right has not been disposed of for consideration and no transfer income (price) has been paid. The parties negotiated and determined the final consideration based on the appraised value of the Xiling Gold Mine Exploration Right after deducting the discounted value of the transfer income payable for the exploration right. The transaction pricing method for the Acquisition was fair and reasonable.

Payment method

1. RMB6,707,941,800 of the consideration shall be paid by the Company in cash within one year after the effective date of the Acquisition Agreement. The specific payment arrangements are set out below:

   (i) The Company shall pay the first instalment of RMB2,012,382,540 to Shandong Gold Exploration within 10 working days upon the approval of the Acquisition by the Shareholders' general meeting of the Company. In the event that the Acquisition is not approved by the natural resources competent authorities, Shandong Gold Exploration shall return the sum within 10 working days after receiving the notice from the Company;

   (ii) The Company shall pay the second instalment of RMB2,012,382,540 within 30 working days after the completion of the notification of the transfer of mineral rights by the natural resources competent authorities for the Xiling Gold Mine Exploration Right; and

   (iii) The Company shall pay the third instalment of RMB2,683,176,720 within 10 working days after the change of the proprietor stated in the certificate of the Xiling Gold Mine Exploration Right to the Company.

2. The remaining RMB3,626,306,900 shall be paid by way of separate negotiation between the parties. If both parties fail to agree on the specific payment method by 31 December 2026, the Company shall pay in cash, in which case the Company shall pay the remaining RMB3,626,306,900 in one lump sum to Shandong Gold Exploration within 20 working days upon receipt of the payment notice issued by Shandong Gold Exploration. Overdue payments shall bear an interest at the bank lending rate for the same period.

The Company intends to pay the consideration with the its self-owned funds and self-raised funds.

Completion

Shandong Gold Exploration shall, within 15 working days after the effective date of the Acquisition Agreement, hand over to the Company all the information on the Xiling Gold Mine Exploration Right and cooperate with the Company in the formalities for the transfer of the Xiling Gold Mine Exploration Right.

Profit Guarantee and Compensation

1. According to the Valuation Report on the Exploration and Prospecting Right of the Gold Mine at Xiling Village in Laizhou City, Shandong Province, the Target Exploration Right's planned output will be achieved and its stable profits will be generated starting from 2031. Therefore, the profit guarantee period of Shandong Gold Exploration will be 2031, 2032 and 2033.

2. Shandong Gold Exploration guarantees that the net profit of the Target Exploration Right for the years from 2031 to 2033 after deducting the transfer income expected to be paid and without taking into account the net profit after the amortization of mineral right shall be no less than RMB2,302,091,400, RMB2,300,553,000 and RMB2,293,974,900, respectively, except in the event of Force Majeure that prevents the fulfillment of the guaranteed profit.

   In the event that the Target Exploration Right is put into production early after its conversion into a mining right, the profit guarantee period of Shandong Gold Exploration shall be advanced accordingly. The first full fiscal year after fully reaching its planned output shall be the first year of the guarantee period which shall last for three years. The guaranteed net profit shall remain no less than RMB2,302,091,400, RMB2,300,553,000 and RMB2,293,974,900, respectively, except in the event of Force Majeure that prevents the fulfillment of the guaranteed profit.

3. After the end of each fiscal year of the performance guarantee period, the Company will engage an accounting firm to issue a special audit report on the difference between the Target Exploration Right's actual net profit and the guaranteed net profit for the year.

   In the event that the accumulated actual net profit of the Target Exploration Right in each year during the performance guarantee period are lower than the accumulated guaranteed net profit, Shandong Gold Exploration shall compensate the Company in cash in an amount calculated according to the following formula:

   The compensation amount for the current period = (the accumulated guaranteed net profit of the Target Exploration Right as of the end of the current period – the accumulated actual net profit of the Target Exploration Right as of the end of the current period[Note]) / the sum of the guaranteed net profit of the Target Exploration Right during the performance guarantee period × the transaction consideration – the accumulated compensated amounts.

   Where the compensation amount calculated according to the above formula is negative, it shall be deemed as zero. In such case, Shandong Gold Exploration is not required to pay any profit compensation to the Company. The amounts compensated by Shandong Gold Exploration will not be reversed as a result of excess performance in subsequent years during the performance guarantee period.

   As the accounting will be performed on asset groups (i.e. the Target Exploration Right), there will be no income or loss generated by activities outside the ordinary and usual course of business.

4. In the event that the performance compensation conditions are triggered, Shandong Gold Exploration shall pay the amounts within 10 working days from the date on which the special audit report is issued and the Company's annual financial report is approved at the Shareholders' general meeting.

Note: Based on the information currently available to the Company, the Company expects that under normal circumstances, there will be no incurring of losses for the Target Exploration Right during the performance guarantee period. If losses are incurred for the Target Exploration Right during the performance guarantee period and are not due to Force Majeure, such losses should be calculated as negative values.

Liability for breach of contract

1. A party that commits a breach of contract shall be liable for the corresponding breach of contract.

2. If Shandong Gold Exploration fails to cooperate with the Company in completing the transfer formalities according to the Acquisition Agreement, and remains so after being reminded by the Company, Shandong Gold Exploration shall be liable for liquidated damages of one ten-thousandth of the consideration for each overdue day; and if the Company fails to pay the consideration according to the contract, the Company shall be liable for liquidated damages of one ten-thousandth of the outstanding amount payable for each overdue day.

Effective Conditions of the Acquisition Agreement

The Acquisition Agreement shall become effective on the date when all the following conditions have been fulfilled:

1. Shandong Gold Exploration having obtained valid approval of the Acquisition;

2. the Company having obtained approval of the Acquisition from the Shareholders' general meeting; and

3. the approval of the Acquisition by the natural resources competent authorities having been obtained.

As at the Latest Practicable Date, as Shandong Gold Exploration has obtained approval from SDG Group Co., condition (1) has been satisfied.

B. PROFIT GUARANTEE AND COMPENSATION

(I) Comparison of the Appraised Value and Book Value of the Exploration Right

The book value of the Xiling Gold Mine Exploration Right as of the Valuation Reference Date was RMB791,492,900, the appraised value of the Target Exploration Right increased by RMB10,237,308,400 compared with the book value, and the appreciation rate was 1,293.42%. Shandong Gold Exploration obtained the Xiling Gold Mine Exploration Right for the first time on 15 December 2000 through prior application. Shandong Gold Exploration completed the exploration of the mineral right through its own funds and independent exploration methods, which is accounted as exploration costs, thus the book value is lower. Using the discounted cash flow method to valuate exploration right in the exploration phase is currently a common valuation method used by mining right valuation. Due to the huge reserves and high value of the Xiling Gold Mine Exploration Right, therefore, the premium rate is higher. The Company has set up installment payment terms and profit guarantee compensation terms for the mineral right transfer price, which can effectively safeguard the interests of the listed company.

In particular, the book value of the Xiling Gold Mine Exploration Right as of 31 October 2023 was approximately RMB791 million, including direct materials costs of approximately RMB15 million, direct labor costs of approximately RMB195 million, direct power costs of approximately RMB2 million, outsourcing engineering expenses of approximately RMB171 million, land occupation compensation expenses of approximately RMB2 million and production safety fee of approximately RMB4 million, with other related expenses, including travel expenses, transportation expenses, interest on borrowings, other related labor wages, and expenses on maintaining the normal operating of the Company and the mining rights amounted approximately RMB402 million. As Shandong Gold Exploration obtained the Xiling Gold Mine Exploration Right through prior application, there is no acquisition costs on the exploration right, but only the project investment made after the obtaining of the exploration right, and the location of the exploration right is in Laizhou City, Shandong Province, which is the location of Shandong Gold Exploration (the exploration right holder), which is convenient for the exploration and construction of the Xiling Gold Mine Exploration Right, and thus greatly saves the materials costs, labor costs, power costs, transportation costs and other costs.

The book value accounts for the maintenance costs of the exploration right and the exploration expenses paid for the Xiling Gold Mine Exploration Right up to the Valuation Reference Date. The mining exploration industry is a well-known risky investment characterized by high risk and high return. If certain exploration costs are invested and good exploration results are obtained (potential of measured resources or explored resources), its return will be incomparable to the cost of investment. The valuation of the exploration right lies in the quantification of the potential of the exploration right to generate economic benefits in the future based on good exploration results on the premise of complying with the "China Mineral Rights Valuation Standards" and its system, therefore, the appraised value is higher than the book maintenance cost and exploration expenses of the exploration right. Please refer to the Valuation Report set out in Appendix I to this circular for the retained resources of the Xiling Gold Mine Exploration Right and various valuation parameters adopted in this valuation.

(II) Profit Guarantee Period and Guaranteed Profits

According to the Valuation Report issued by the Valuer, upon the conversion of the Xiling Gold Mine Exploration Right into a mining right and the completion of project construction, the planned output will be achieved and stable profits will be generated starting from 2031. Therefore, the profit guarantee period of Shandong Gold Exploration in respect of the Acquisition will be 2031, 2032 and 2033, and in the event that the total net profit of the Xiling Gold Mine Exploration Right for the respective fiscal years are less than the total guaranteed net profit for the corresponding years, Shandong Gold Exploration shall compensate the Company. Based on the net profit of the Xiling Gold Mine Exploration Right for the years from 2031 to 2033 as predicted in the Valuation Report, Shandong Gold Exploration guarantees that the net profit of the Target Exploration Right for the years from 2031 to 2033 after deducting the transfer income expected to be paid and without taking into account the net profit after the amortization of mineral right (the "**Net Profit**") shall be no less than RMB2,302,091,400, RMB2,300,553,000 and RMB2,293,974,900, respectively, except in the event of Force Majeure that prevents the fulfillment of the guaranteed profit.

In the event that the Xiling Gold Mine Exploration Right is put into production early after its conversion into a mining right, the profit guarantee period of Shandong Gold Exploration shall be advanced accordingly. The first full fiscal year after fully reaching its planned output shall be the first year of the guarantee period which shall last for three years. The guaranteed Net Profit shall remain no less than RMB2,302,091,400, RMB2,300,553,000 and RMB2,293,974,900.

After the end of each fiscal year of the performance guarantee period, the Company will engage an accounting firm to issue a special audit report on the difference between the Target Exploration Right's actual Net Profit and the guaranteed Net Profit for the year.

As mentioned above, the amount of the profit guarantee is determined based on the estimated Net Profit of the Xiling Gold Mine Exploration Right in 2031, 2032 and 2033 and please refer to below table for the details of calculation. The resources used in the Valuation Report derived from the Exploration Report and its review opinions. The Exploration Report was reviewed and filed by experts organized by the Shandong Provincial Department of Natural Resources, and the resources in the Exploration Report are true and reliable. The annual gold production in the Valuation Report derived from the Feasibility Study Report prepared by China ENFI Engineering Corporation which has the corresponding qualifications and Xiling Gold Mine Exploration Right is being developed and utilized based on the Feasibility Study Report, and the gold production estimated in the Feasibility Study Report is expected to be realized. The gold price used in the Valuation Report is determined based on the "China Mineral Rights Valuation Standards" and is the average gold price for the five years before the Valuation Reference Date, and thus the selection of the gold price is reasonable. According to the provisions of the "China Mineral Rights Valuation Standards" and the "Guiding Opinions on Determination of Mineral Rights Evaluation Parameters", the total costs and expenses of this valuation are estimated using the "cost element method", and the depreciation fee and financial expenses are calculated according to the "Guiding Opinions on Determination of Mineral Rights Evaluation Parameters in PRC". The mine production safety fee is determined in accordance with relevant national documents, and the selection of mine costs is determined with reference to the relevant cost data of Sanshandao Gold Mine which is currently producing, and thus the selection of costs is objective and is expected to be consistent with the actual situation. Taxes and surcharges, as well as enterprise income tax and other related taxes are determined in accordance with the relevant laws and regulations of the People's Republic of China. In summary, as the calculation basis of mine resources, gold production, gold price, mining costs and related taxes is comprehensive and reasonable and is expected to be realized, the Company believes that the profit guarantee is reasonable and in line with the A-share market practice.

Details of the calculations of the estimated Net Profit (i.e. the amount of profit guarantees) of the Xiling Gold Mine Exploration Right for the years 2031, 2032 and 2033 are set out below:

Unit: *RMB0'000*

No.	Item	2031	2032	2033
1	Sales revenue[Note]	494,545.77	494,324.04	493,375.90
2	Total cost expense	151,663.26	151,662.76	151,660.59
3	Value-added tax	–	–	–
3.1	Sales tax (13%)	–	–	–
3.2	Input tax (13%)	–	–	–
3.3	Deductible input tax on fixed assets	–	–	–
4	Sales tax and surcharge	20,770.92	20,761.61	20,721.79
4.1	Urban maintenance and construction tax (5%)	–	–	–
4.2	Education surcharge (3%+2%)	–	–	–
4.3	Resource tax (4.2% of sales revenue)	20,770.92	20,761.61	20,721.79
5	Total profit	322,111.59	321,899.67	320,993.52
6	Enterprise income tax (25%)	80,527.90	80,474.92	80,248.38
7	Transfer income (2.3% of sales revenue)	11,374.55	11,369.45	11,347.65
8	**Net Profit**	**230,209.14**	**230,055.30**	**229,397.49**

Note: Please refer to the Table of the Estimated Value of the Exploration and Prospecting Right of Xiling Village Gold Mine in Laizhou City, Shandong Province set out on page I-81 of this circular.

(III) Profit Compensation

In the event that the accumulated actual Net Profit of the Target Exploration Right in each year during the profit guarantee period are lower than the accumulated guaranteed Net Profit, Shandong Gold Exploration shall compensate the Company in cash in an amount calculated according to the following formula:

The compensation amount for the current period = (the accumulated guaranteed Net Profit of the Target Exploration Right as of the end of the current period – the accumulated actual Net Profit of the Target Exploration Right as of the end of the current period) / the sum of the guaranteed Net Profit of the Target Exploration Right during the performance guarantee period × the transaction consideration – the accumulated compensated amounts.

Where the compensation amount calculated according to the above formula is negative, it shall be deemed as zero. In such case, Shandong Gold Exploration is not required to pay any profit compensation to the Company. The compensated amounts will not be reversed as a result of excess performance in subsequent years during the performance guarantee period.

In the event that the performance compensation conditions are triggered, Shandong Gold Exploration shall pay the amounts within 10 working days from the date on which the special audit report is issued and the Company's annual financial report is approved at the Shareholders' general meeting.

Such profit guarantee and compensation are formulated with reference to the A-share market practice and the requirements of the Shanghai Stock Exchange. As (i) the guarantee period of the Xiling Gold Mine Exploration Right is only the first 3 years after achieving production and generating profits, while the actual service life of the mine is 36 years, there are still 33 years for the Xiling Gold Mine Exploration Right to be mined after the guarantee period; and (ii) according to the Exploration Report, the resources of the Xiling Gold Mine Exploration Right reached 592.186 tons of gold metal, regardless of the performance of the profit guarantee, the exploration rights will be owned by the Group after the completion of the Acquisition, therefore, the Group believes that such profit guarantee and compensation are fair and reasonable, and are in the interests of the Company and its shareholders as a whole. Considering that Shandong Gold Exploration is a subsidiary of SDG Group Co., and Shandong Gold Exploration is credit-worthy since its establishment and has no major bad credit records, the Company believes that Shandong Gold Exploration has sufficient compensation capacity to pay such profit guarantee (if necessary).

The Company will comply with the announcement and annual reporting requirements set out in Rule 14.36B and Rule 14A.63 of the Hong Kong Listing Rules in relation to the profit guarantee in the future.

C. INFORMATION ON THE XILING GOLD MINE EXPLORATION RIGHT

1. Basic Information on the Exploration Right

Exploration right holder: Shandong Gold Geological Mine Exploration Co., Ltd.

License no.: T3700002009084010033093

Exploration project name: Exploration and Prospecting Right of Xiling Village Gold Mine in Laizhou City, Shandong Province

Location: Laizhou City, Shandong Province

Drawing no.: J50E016024

Exploration area: 4.59 square kilometers

Validity period: 20 April 2023 to 19 April 2028

Issuing authority: Department of Natural Resources of Shandong Province (山東省自然資源廳)

Shandong Gold Exploration, the exploration right holder of Xiling Gold Mining Exploration Right, has legally obtained the exploration license with clear ownership, free from mortgage, pledge and any other restrictions on transfer, and it is not involved in any litigation, arbitration matters or judicial measures such as seizure and freezing and other circumstances that prevent the transfer of ownership of such exploration right.

As of the Valuation Reference Date, within the scope of the exploration right, the reviewed and filed (measured+indicated+inferred) resources include an amount of gold ore of 147.2787 million tonnes, and an amount of Au metal of 592,186.00 kg, with an average Au grade of 4.02 g/t; the associated (inferred) resources include an amount of silver ore of 144.9937 million tonnes, and an amount of Ag metal of 590,850.00 kg, with an average Ag grade of 4.08 g/t, and an amount of associated pure S of 3,617,079.00 tonnes, with an average S grade of 2.49%. In addition, there are gold ore of 1.1122 million tonnes, and Au metal of 4,393 kg, with an average Au grade of 3.95 g/t, which are still difficult to be utilized.

The main resources of the Xiling Gold Mine Exploration Right are summarized in the table below. Of which, the reviewed and filed retained resource reserves are derived from the Exploration Report prepared by Shandong Gold Exploration in May 2023 and its review opinions, and the resources designed for utilization are mainly based on the Feasibility Study Report prepared by the China ENFI Engineering Corporation ("**China ENFI**"). Shandong Gold Exploration is a comprehensive geological exploration unit with Grade A qualification in solid mineral exploration, Grade A qualification in geological drilling, Grade B qualification in pit exploration, Grade C qualification in geophysical survey and Grade C qualification in survey. It has a complete exploration chain integrating geological exploration design, construction of various exploration means and compilation of comprehensive result reports, and has been honored as "National Model Geological Exploration Unit (全國模範地勘單位)", "Advanced Enterprise in National Gold Industry", "Advanced Collective of '358' Strategic Action of Finding Mineral Breakthroughs in Shandong Province (山東省「358」找礦突破戰略行動先進集體)", etc. It owns more than ten provincial and ministerial-level geological scientific research and innovation achievements, and eight national invention patents. China ENFI has a comprehensive grade A qualification in engineering design and is an independent third party independent of the Company and its connected persons. According to the public information, China ENFI has participated in 12,000 projects in more than 30 countries and regions over the past 70 years, capable of providing general contracting, project management, project consulting, design, cost consultancy, supervision, environmental assessment, supply and other lifecycle services, with the ability to provide "five-in-one (五位一體)" services of consulting, design, construction, investment and operation.

The reviewed and filed (with review date being on 31 May 2023) retained resource reserves

Scope	**Type of ore**	**Reserve level**	**Amount of ore** *(t)*	**Beneficial component** *(kg/t)*	**Average grade** *(g/t, %)*
Xiling Village Exploration Right	Gold	Measured	23,509,618.00	100,666.00	4.28
		Indicated	61,836,379.00	256,111.00	4.14
		Inferred	61,932,669.00	235,409.00	3.80
		Cumulative identified	147,278,666.00	592,186.00	4.02
		Still difficult to be utilized	1,112,244.00	4,393.00	3.95
	Associated silver	Inferred	144,993,673.00	590,850.00	4.08
	Associated sulfur	Inferred	144,993,673.00	3,617,079.00	2.49

Scope	Type of ore	Reserve level	Resource reserves used in the valuation on the Valuation Reference Date										
			Resources not designed for utilization		Increases and decreases designed for re-estimation		Resources designed for utilization			Reliability coefficient	Resource reserves used in the valuation		
			Amount of ore (t)	Beneficial component (kg/t)	Amount of ore (t)	Amount of Au metal (kg)	Amount of ore (t)	Amount of Au metal (kg)	Average grade (g/t)		Amount of ore (t)	Amount of Au metal (kg)	Average grade (g/t)
Xiling Village Exploration Right	Gold	Measured			–90,442.00	2,257.00	23,419,176.00	102,923.00	4.39	1.00	23,419,176.00	102,923.00	4.39
		Indicated			–1,425,349.00	2,431.00	60,411,030.00	258,542.00	4.28	1.00	60,411,030.00	258,542.00	4.28
		Inferred			–8,108,709.00	–18,977.00	53,823,960.00	216,432.00	4.02	0.70	37,676,772.00	151,502.40	4.02
		Cumulative identified			–9,624,500.00	–14,289.00	137,654,166.00	577,897.00	4.20		121,506,978.00	512,967.40	4.22
		Still difficult to be utilized	1,112,244.00	4,393.00			Not designed for utilization						
	Associated silver	Inferred	144,993,673.00	590,850.00			Not designed for utilization						
	Associated sulfur	Inferred	144,993,673.00	3,617,079.00			Not designed for utilization						

Scope	Type of ore	Reserve level	Mineable reserve used in the valuation								
			Design loss (adjusted by reliability coefficient)			Mining loss (with a mining recovery rate of 90%)			Mineable reserve		
			Amount of ore pillar (t)	Amount of Au metal (kg)	Low grade (t)	Amount of Au metal (kg)	Amount of ore (t)	Amount of Au metal (kg)	Amount of ore (t)	Amount of Au metal (kg)	Average grade (g/t)
Xiling Village Exploration Right	Gold	Measured	264,440.00	1,451.74	1,338,576.00	2,076.70	2,181,616.00	9,939.46	19,634,544.00	89,718.38	4.57
		Indicated	2,071,804.00	10,215.57	1,278,171.00	1,982.99	5,706,105.50	24,634.34	51,354,947.70	222,086.37	4.32
		Inferred	464,223.90	2,717.32	1,046,917.20	1,624.22	3,616,563.09	14,716.09	32,549,066.55	132,174.05	4.06
		Cumulative identified	2,800,467.90	14,384.63	3,663,664.20	5,683.91	11,504,284.59	49,289.89	103,538,558.25	443,978.80	4.29
		Still difficult to be utilized									
	Associated silver	Inferred									
	Associated sulfur	Inferred									

2. History of Exploration Right

On 15 December 2000, Shandong Gold Geological Mine Exploration Co., Ltd. (formerly known as "Laizhou Geological Mine Exploration Co., Ltd. (萊州市地質礦產勘查有限公司)") obtained its first mineral resources exploration license (Certificate No.: 3700000010435) for "General Exploration of Gold Mine in Xiling Village Mine Area in Laizhou City, Shandong Province" on a first-application basis. The issuing authority is Shandong Provincial Department of Land and Resources, the ore type of exploration is gold, the validity period is from 15 December 2000 to 17 May 2001, and the exploration area is 8.53 km^2. This exploration right has been effectively extended and changed several times, and the history of the mineral right is shown as follows:

Exploration right holder	Exploration license no.	Area (km^2)	Validity period	Reasons for changes	Remark
Laizhou Geological Mine Exploration Co., Ltd.	3700000010435	8.53	15 December 2000 to 17 May 2001	First registration	Prospecting
	3700000120100		18 May 2001 to 30 December 2003	Extension	Prospecting
	3700000330694		3 December 2003 to 30 December 2005	Extension	Prospecting
	3700000531298		3 December 2005 to 30 December 2007	Extension	Prospecting
	3700000730919		31 December 2007 to 30 September 2009	Extension	Prospecting
	T37120090802033093		18 August 2009 to 30 June 2011	Extension	Prospecting
Shandong Gold Geological Mine Exploration Co., Ltd.	T37120090802033093	8.39	1 July 2011 to 31 December 2012	Change	Prospecting
			1 January 2013 to 31 December 2014	Extension	General Exploration
		6.17	1 January 2015 to 31 December 2016	Change	General Exploration
			1 January 2017 to 31 December 2018	Extension	Detailed Exploration
	T3700002009084010033093	4.59	20 April 2023 to 19 April 2028	Change	Detailed Exploration

Note: From 31 December 2018 to 20 April 2023, the partial scope of the mineral right overlaps with the ecological redline (2016 version). The overlapped scope has been transferred out of the new ecological redline and after the new ecological redline was formally implemented, the exploration license for the new phase was obtained.

On 1 July 2011, the company name of exploration right holder was changed from "Laizhou Geological Mine Exploration Co., Ltd." to "Shandong Gold Geological Mine Exploration Co., Ltd.", and the exploration area was changed to 8.39 km^2. On 1 January 2013, the exploration phase of the exploration right was upgraded, and the exploration project was named "General Exploration of Gold Mine in Xiling Village, Laizhou City, Shandong Province". On 1 January 2015, the area of the exploration right was curtailed and the exploration area was changed to 6.17 km^2. On 1 January 2017, the exploration phase of the exploration right was upgraded, and the exploration project was named "Detailed Exploration of Gold Mine in Xiling Village, Laizhou City, Shandong Province". After the expiration of the mining right certificate on 31 December 2018, the issuance of mining right certificate was suspended due to the overlap between the partial scope of the mining right and the ecological redline protection zone (2016 version). The overlapped scope has been transferred out of the new ecological redline and after the new ecological protection redline was formally implemented, the exploration license for the new phase was obtained on 20 April 2023. The area of the exploration right was curtailed and the exploration area was changed to 4.59 km^2. There were no mineable and utilizable ore bodies and no resource partitioning was involved within the cut area, and the license will be valid until 19 April 2028.

3. Approval Procedures Required for the Transfer of Exploration Right

The transfer of exploration right contemplated under the Acquisition is subject to the approval of and registration procedures with the competent natural resources authorities.

In particular, the transfer of exploration right contemplated under the Acquisition is subject to the review by the Natural Resources and Planning Bureau of Laizhou City and the Natural Resources and Planning Bureau of Yantai City and the approval of the transfer of exploration right by the Department of Natural Resources of Shandong Province. To the best of the Company's knowledge, there are no foreseeable difficulties in obtaining approval from the above competent natural resources authorities in relation to the transfer of exploration right, and the transfer registration is expected to be completed within about six months after the Acquisition is approved by the Shareholders of the Company.

4. Production Conditions for Mine Mining

There are currently no production activities involving the Xiling Gold Mine Exploration Right. After the Completion, the Xiling Gold Mine Exploration Right will be integrated with the existing mining right of Sanshandao Gold Mine owned by Shandong Gold Mining (Laizhou) Co., Ltd. (山東黃金礦業(萊州)有限公司), a wholly-owned subsidiary of the Company, into a new mining right, and be jointly developed and utilized. Sanshandao Gold Mine is currently an active mine and will continue to maintain normal production during the resource integration period.

According to the Feasibility Study Report, the infrastructure construction period of the Xiling Gold Mine Exploration Right is seven years and the service life of the Xiling Gold Mine Exploration Right is 36 years. Based on the information currently available to the Company, it is expected that the mining operation can commence in November 2030.

5. Valuation of the Xiling Gold Mine Exploration Right

According to the Valuation Report, the appraised value of the Xiling Gold Mine Exploration Right as at the Valuation Reference Date was RMB11,028,801,300.

Valuation method

The discounted cash flow method was adopted for this valuation.

According to the "China Mineral Rights Valuation Standards", there are three types of valuation methods for mineral right valuation, namely, the income approach, the cost approach and the market approach. In accordance with the applicable scope and prerequisites of various valuation methods under the "China Mineral Rights Valuation Standards", the valuation methods shall be appropriately selected in light of the characteristics of the valuation target and scope as well as the valuation information collection and other relevant conditions, in order to form a valuation conclusion. Where the valuation information conditions are available and it is appropriate to adopt different valuation methods, two or more valuation methods shall be adopted for the valuation, and valuation conclusions shall be reasonably formed through comparative analysis; where it is not possible to adopt two or more valuation methods for the valuation due to applicability of the methods, operational constraints, etc., the valuation can be carried out by adopting a single method.

Due to the geographic and geological specificities of the exploration right, the exploration work has submitted a large deposit resource, and no cases of the same or similar transactions have been collected, and therefore it is not possible to adopt the market comparative adjustment method based on the transaction cases on the market.

The cost evaluation method of mineral rights includes the exploration cost-utility method and the geological element ranking method. The cost evaluation method is suitable for exploration right with lower stages of geological work. For exploration right that has a high degree of geological exploration and has been submitted and evaluated with development prospects, the cost evaluation method is no longer suitable. This entrusted valuation project is an exploration right valuation in the advanced exploration stage, whose reserves have been filed and relevant designs have been prepared. Therefore, the exploration cost-utility method and the geological element ranking method are not applicable for the valuation.

Income valuation method includes the income and equity method and the discounted cash flow method. The production scale of the mine is large, and the mine is classified as large mine in terms of the size of its resource reserves, and its service life is greater than 5 years, and therefore, it does not qualify for the income and equity method of valuation. Shandong Gold Geological Mine Exploration Co., Ltd. prepared the Exploration Report in May 2023; China ENFI Engineering Corporation prepared the Feasibility Study Report; the main technical and economic parameters designed for resource development and utilization are available for selection and utilization in the valuation, and the conditions for selection of various valuation parameters are basically in place. The exploration right is of a certain scale, has independent measurable profitability, and its future revenue and risks borne can be measured in monetary terms. As future revenue can be predicted, the economic and technical parameters designed in the Feasibility Study Report can basically satisfy the requirements for valuation using the discounted cash flow method. According to the "Mineral Rights Valuation Management Measures (Trial)" and the "China Mineral Rights Valuation Standards", it is determined that this valuation adopts the discounted cash flow method.

Valuation assumption

The appraised value referred to in the Valuation Report are fair value opinions expressed based on the listed valuation purpose, the Valuation Reference Date and the following underlying assumptions:

(1) the degree of geological survey work as well as the internal and external conditions of the valuation target have no major change but remain current status;

(2) the relevant policies, laws and systems followed have no major change but remain current status and the related social, political and economic environment as well as the development technologies and conditions, etc. have no major change but remain current status;

(3) it will not take into account the impact on the appraised value of encumbrance rights such as mortgages and guarantees that may be assumed in the future, or any other restrictions on the property rights, and any additional price that may be paid by a special counterparty;

(4) the exploration right can be successfully converted into mining right and the mining license can be obtained. Its subsequent development and utilization methods can be smoothly implemented according to the plans set out in the feasibility study, and the obtained mining license can be smoothly extended until the expiration of the evaluated life; and

(5) there is no other significant impact caused by Force Majeure and unpredictable factors.

Main valuation parameters

Within the scope of the exploration right, the reviewed and filed (measured+indicated+inferred) resources include an amount of gold ore of 147,278,666 tonnes, and an amount of Au metal of 592,186.00 kg, with an average Au grade of 4.02 g/t (including 2,022,909.00 tonnes of low-grade gold ore that can be mined on a consolidated basis and 3,942.00 kg of Au metal); the associated (inferred) resources include an amount of ore of 144,993,673 tonnes, and an amount of associated Ag metal of 590,850.00 kg, with an average Ag grade of 4.08 g/t, and an amount of associated pure S of 3,617,079.00 tonnes, with an average S grade of 2.49%. In addition, there are gold ore of 1.1122 million tonnes, and Au metal of 4,393 kg, with an average Au grade of 3.95 g/t, which are still difficult to be utilized.

An amount of gold ore of 10,736,744.00 tonnes and an amount of metal of 18,682.00 kg from the resource reserves that are difficult to be utilized, associated minerals and the increase and decrease estimated through remodeling in the design will not be used in the valuation. The credibility coefficient is 1.0 for measured + indicated resources, and 0.7 for inferred resources. The resource reserves used in the valuation include an amount of gold ore of 121,506,978.00 tonnes and an amount of Au metal of 512,967.40 kg, with an average Au grade of 4.22 g/t.

The loss in the design includes an amount of gold ore of 6,464,132.10 tonnes and an amount of Au metal of 20,068.54 kg. The mining loss includes an amount of gold ore of 11,504,284.59 tonnes and an amount of Au metal of 49,289.89 kg with a mining recovery rate of 90%.

The mineable reserve used in the valuation includes an amount of gold ore of 103,538,558.25 tonnes and an amount of Au metal of 443,978.80 kg, with an average Au grade of 4.29 g/t. Among them: gold ore of 41,768,086.23 tonnes, and Au metal of 193,624.08 kg, with an average Au grade of 4.64 g/t, is in the upper part of phase I; gold ore of 34,854,481.53 tonnes, and Au metal of 145,668.50 kg, with an average Au grade of 4.18 g/t, is in the lower part of phase I; and gold ore of 26,915,990.49 tonnes, and Au metal of 104,686.22 kg, with an average Au grade of 3.89 g/t, is in phase II.

The product solution is finished gold (Au) (trading variety grade Au9995 (secondary gold ingot, containing gold ≥99.95%, <99.99%, i.e., national standard No. 2 gold)).

Ore dilution rate is 8%; production scale is 3.30 million tonnes/year; theoretical service life of the mine (the upper part of phase I + the lower part of phase I + phase II) is 36 years, and the evaluated life is 43 years (including the infrastructure construction period).

Based on the original fixed assets of RMB1,468.8901 million, the additional investment in fixed assets in the upper part of phase I is RMB3,387.23 million, the additional investment in fixed assets in the lower part of phase I is RMB537.1 million, and the additional investment in fixed assets for phase II is RMB1,064.92 million; based on the original intangible assets of RMB23.0707 million, the increase is RMB8.48 million. The gold metal price is RMB369.45/g, and the gold return rate is 97.5%. The discount rate is 8.40%.

Explanations on valuation

(1) The Xiling Gold Mine Exploration Right has not been disposed of for consideration, and no transfer income (price) has been paid. According to the Notice on Issuing the Measures for the Collection of the Income from the Transfer of Mineral Rights (《關於印發〈礦業權出讓收益徵收辦法〉的通知》) (Caizong [2023] No. 10) issued by the Ministry of Finance, the Ministry of Natural Resources and the State Taxation Administration, gold ore processing products shall be subject to annual payment of the transfer income of the mining right at the rate of 2.3% of the sales revenue. Based on this forecast future income, the total amount of mining rights income to be paid in future years is RMB3,531.2194 million. The discounted value is RMB691.2479 million based on the discount rate adopted in this valuation. As there are no unified regulations in the industry regarding specific treatment of the transfer income in the valuation conclusion, the valuation conclusion contains the transfer income of mining rights of liability nature.

(2) There are an amount of gold ore of 1.1122 million tonnes and an amount of Au metal of 4,393 kg, with an average Au grade of 3.95 g/t, within the scope of the exploration right which have been filed but yet difficult to be utilized. As it has not been designed for utilization in the Feasibility Study Report used as the basis for this valuation, the impact on the appraised value of possible utilization of such part of the resources has not been considered in the valuation conclusion.

D. INFORMATION OF THE RELEVANT PARTIES

The Company

The Company was established by its promoters with approval from the Shandong Province Economic System Reform Commission (山東省經濟體制改革委員會) and the People's Government of Shandong Province (山東省人民政府) in January 2000. The Company is an integrated gold company listed on the SSE and the Hong Kong Stock Exchange since 2003 and 2018, respectively and engaged in gold exploration, mining, processing, smelting and sales. It is one of the largest gold producers listed domestically and/or in Hong Kong that operates in the PRC, controlling and operating more than 10 gold mines with operation primarily located in Shandong Province. The Company has gradually expanded its business into the Inner Mongolia Autonomous Region, Gansu Province, Xinjiang Uyghur Autonomous Region, Fujian Province and Argentina, South America and Ghana, Africa.

Shandong Gold Exploration

Shandong Gold Exploration is a company established in the PRC with limited liability on 3 January 2003 and is held as to 100% by Shandong Gold Resources Development Co., Ltd., which in turn is held as to 100% by SDG Group Co. Shandong Gold Exploration is principally engaged in mineral resources exploration, and geological exploration for metal and non-metal mineral resources.

SDG Group Co.

As the controlling Shareholder, SDG Group Co. was established in the PRC in July 1996. SDG Group Co. engages in gold mining related operations, including geological exploration and mining of gold, gold processing, gold smelting and technical services, and production and sales of specialized equipment and supplies and construction materials for gold mines. The gold resources of SDG Group Co. are mainly located in the PRC.

E. REASONS FOR AND BENEFITS OF THE ACQUISITION

(I) Implementing the overall approval requirements of the People's Government of Shandong Province on the consolidation of gold mineral resources and expeditiously taking forward the consolidation of mineral rights

On 26 July 2021, the People's Government of Shandong Province issued the Approval of the People's Government of Shandong Province on the Gold Mineral Resources Consolidation Plan for the Eight Districts (Cities) of Yantai City (《山東省人民政府關於煙台市8個區(市)金礦礦產資源整合方案的批覆》) (Lu Zheng Zi [2021] No. 133) (the "**Approval**"). In order to actively implement the opinions set out in the Approval, the Company promotes the mineral rights consolidation work in respect of the mineral rights relating to the metallogenic belt of Sanshandao Gold Mine under the Company and SDG Group to ensure that the Xiling Gold Mine Exploration Right will be injected into the Company as soon as possible.

(II) Increasing resources reserve, expanding production scale and leveraging synergies to improve the asset scale and profitability of the Company

Gold resource reserves determine the future development potential and space of gold companies. The Xiling Gold Mine Exploration Right, the target asset of the Acquisition, is the largest (world-class giant) single gold deposit explored in the PRC to date with abundant resources reserves. The implementation of the Acquisition will be conducive to further increasing the Company's gold resource reserves, expanding its production scale and strengthening the scale effect, and thus enhancing the core competitiveness of the Company.

Xiling Gold Mine is located on the eastern side of Sanshandao Gold Mine and is an extension of the ore body of Sanshandao Gold Mine along the strike and inclination, which is feasible for the consolidation of the mining rights and can realise geographical concentration. Upon completion of the consolidation, the Xiling Gold Mine Exploration Right and the mining right of Sanshandao Gold Mine will be merged into one mineral right. The resource advantages of Xiling Gold Mine can be fully utilised with the existing infrastructure and mining and processing system, engineering facilities and staffing of Sanshandao Gold Mine, which is conducive to realising intensive mining and reducing mining costs, improving resources utilisation efficiency and enhancing the Company's profitability. Upon the completion of the Acquisition, by organising the project construction on a scientific basis, the construction cycle of the mine can be shortened, the costs of engineering facilities can be reduced, the early exploitation and early utilisation of resources can be achieved and thus economic benefits can be realised as soon as possible.

(III) Reducing horizontal competition and realizing the overall listing of high-quality gold resources within SDG Group

The implementation of the Acquisition can inject existing gold mineral rights that meet the listing requirements under SDG Group into the Company. This will not only help realise the overall listing of high-quality gold resources within SDG Group, but also reduce horizontal competition between SDG Group and the Company, and does not involve increase of connected transactions, thereby further implementing regulatory requirements for the listed company.

(IV) The Company has adequate liquidity and smooth financing channels, which will not adversely affect the liquidity of the Company

At present, the Company has sound reserve of liquidity, as well as sufficient external credit facilities and smooth financing channels. There is no obstacle for payment of the consideration for the Acquisition and the liquidity for the Company's normal production and operation will not be adversely affected. Upon completion of the Acquisition, the exploration right of Xiling Gold Mine will be integrated and developed with the mining right of Sanshandao Gold Mine, as a result, the commencement of production will last longer, and the contribution to the net profit of the Company will need to be released on a yearly basis. The financial costs incurred from payment of the consideration for the Acquisition will have a certain diluted effect on the Company's profit in the short run. The Target Exploration Right will contribute to the Company's long-term and sustainable profit in the future after being put into production, which will also have a positive impact on the Company's ability to improve its profitability and core competitiveness in the long term.

(V) The connected transaction does not involve any change in management, personnel resettlement, land leasing, etc.

The Acquisition does not involve any change in management, personnel resettlement and land leasing of Shandong Gold Exploration, Shandong Gold Mining (Laizhou) Co., Ltd. (山東黃金礦業(萊州)有限公司) and Sanshandao Gold Mine. The land involved will be included in the coordination and consideration for development and utilisation plan of Sanshandao Gold Mine integration area after the Acquisition.

Opinion from the Board

The Directors, including the independent non-executive Directors, are of the view that although the Acquisition is not entered into in the ordinary course of business of the Group, the terms of the Acquisition are on normal commercial terms, which are fair and reasonable, and are in the interests of the Company and the Shareholders as a whole.

The Directors, Mr. Li Hang and Ms. Wang Xiaoling, also holding senior management positions in SDG Group Co., are deemed to have material interests in the Acquisition and have abstained from voting on the relevant resolution of the Board. Save for the Directors mentioned above, none of the other Directors had any material interests in the Acquisition and was required to abstain from voting on the Board resolution approving the same.

F. HONG KONG LISTING RULES IMPLICATIONS

As one or more of the relevant applicable percentage ratios (as defined under the Hong Kong Listing Rules) are more than 5% but less than 25%, the Acquisition constitutes a discloseable transaction of the Company under Chapter 14 of the Hong Kong Listing Rules and will be subject to reporting and announcement requirements under Chapter 14 of the Hong Kong Listing Rules.

SDG Group Co. is the controlling Shareholder, directly and indirectly holding approximately 45.58% of the issued share capital of the Company as at the Latest Practicable Date. Shandong Gold Exploration is an indirect wholly-owned subsidiary of SDG Group Co. Accordingly, the Acquisition constitutes a connected transaction of the Company under Chapter 14A of the Hong Kong Listing Rules and is subject to reporting, announcement, circular and Independent Shareholders' approval requirements under Chapter 14A of the Hong Kong Listing Rules.

III. PROPOSED AMENDMENTS TO THE ARTICLES OF ASSOCIATION

On 26 January 2024, the Company held the 54th meeting of the sixth session of the Board, at which the Resolution on the Amendments to the Articles of Association of the Company was considered and approved. In order to further strengthen the leadership of the Party, implement relevant requirements of the reform on the system for independent directors, continuously improve the corporate governance structure, and enhance the standardized operation of the Company, the existing Articles of Association of the Company were amended in accordance with the provisions of the Management Measures for Independent Directors of Listed Companies (《上市公司獨立董事管理辦法》) of the China Securities Regulatory Commission and the Hong Kong Listing Rules. Details of the proposed amendments are set out below:

Original Articles	Amended Articles
Article 85	**Article 85**
Unless otherwise required in laws, regulations and the Articles of Association, notice of shareholders' general meeting shall be served on the shareholders (whether or not entitled to vote at the meeting), by personal delivery or prepaid mail to their addresses as shown in the register of shareholders.	~~Unless otherwise required in laws, regulations and the Articles of Association, notice of shareholders' general meeting shall be served on the shareholders (whether or not entitled to vote at the meeting), by personal delivery or prepaid mail to their addresses as shown in the register of shareholders.~~
For holders of A shares, notice of the meetings may be issued by way of announcement. The announcement shall be published in one or multiple newspapers designated by the securities supervisory authority of the State Council after the publication of such notice, the holders of A shares shall be deemed to have received the notice of the relevant shareholders' general meeting.	For holders of A shares, notice of the meetings may be issued by way of announcement. The announcement shall be published in one or multiple newspapers designated by the securities supervisory authority of the State Council after the publication of such notice, the holders of A shares shall be deemed to have received the notice of the relevant shareholders' general meeting.
Notice of shareholders' general meeting can be issued to holders of H shares in any of the following manners:	Notice of shareholders' general meeting can be ~~issued~~sent to holders of H shares in any of the following manners:
(I) by personal delivery or by post to each holder of H shares at his/her registered address, and the notices to holders of H shares shall be posted in Hong Kong as far as possible;	~~(I) by personal delivery or by post to each holder of H shares at his/her registered address, and the notices to holders of H shares shall be posted in Hong Kong as far as possible;~~
(II) to be published on the Company's website or the designated website of the stock exchange in the place where the Company's shares are listed, subject to compliance with applicable laws, administrative regulations and relevant listing rules;	~~(II)~~(I) to be published on the Company's website or the designated website of the stock exchange in the place where the Company's shares are listed, subject to compliance with applicable laws, administrative regulations and relevant listing rules;
(III) to be issued in accordance with other requirements of the stock exchange and the listing rules.	~~(III)~~(II) to be issued in accordance with other requirements of the stock exchange and the listing rules.

Original Articles	Amended Articles
Article 168 The Board of the Company has established the audit committee, the strategy committee, the nomination committee and the remuneration and appraisal committee, which shall be accountable to the Board and perform their duties in accordance with the Articles of Association and the authorization of the Board. The proposals of the special committee, shall be submitted to the Board for consideration and decision. The special committees are all comprised of directors. In particular, the members of the audit committee are comprised of directors and all independent non-executive directors, and at least one of the independent non-executive directors must have appropriate professional qualifications that meet the requirements provided in the Hong Kong Listing Rules or possesses appropriate accounting or related financial management expertise. The convenor of the audit committee shall be accounting professional. The majority of the members of the nomination committee, remuneration and appraisal committee are independent non-executive directors who are also the convenors. The board of directors is responsible for formulating the rules of procedure of the special committees, and regulating the operation of the special committees.	**Article 168** The Board of the Company has established the audit committee, the strategy committee, the nomination committee and the remuneration and appraisal committee, which shall be accountable to the Board and perform their duties in accordance with the Articles of Association and the authorization of the Board. The proposals of the special committee, shall be submitted to the Board for consideration and decision. The special committees are all comprised of directors. In particular, the members of the audit committee are comprised of directors and all independent non-executive directors, and at least one of the independent non-executive directors ~~must have appropriate professional qualifications that meet the requirements provided in the Hong Kong Listing Rules or~~ possesses appropriate accounting ~~or related financial management~~ expertise. The convenor of the audit committee shall be accounting professional. The majority of the members of the nomination committee, remuneration and appraisal committee are independent non-executive directors who are also the convenors. The board of directors is responsible for formulating the rules of procedure of the special committees, and regulating the operation of the special committees.

Original Articles	Amended Articles
Article 171 The primary responsibilities of the audit committee include: (I) to make proposals to the board of directors regarding appointment, reappointment and dismissal of external auditors, make recommendations to the board of directors and approve the remuneration and terms of engagement of the external auditors, and deal with all matters of the resignation or dismissal of external auditors;	**Article 171** The primary responsibilities of the audit committee include: (I) to make proposals to the board of directors regarding appointment, reappointment and dismissal of external auditors, make recommendations to the board of directors and approve the remuneration and terms of engagement of the external auditors, and deal with all matters of the resignation or dismissal of external auditors; the audit committee shall make recommendations to the board of directors on the appointment or replacement of the external auditors, review the audit fees and engagement terms of the external auditors, and shall not be improperly influenced by the substantial shareholders, de facto controllers or directors, supervisors and senior management of the Company. .....
CHAPTER 6 PARTY ORGANIZATION AT THE PRIMARY LEVEL	**CHAPTER 6** PARTY ORGANIZATION ~~AT THE PRIMARY LEVEL~~
Article 177 In accordance with the Constitution of the Communist Party of China, the Company hereby set up the organization under the Communist Party of China and related working organs, and maintain staffing to handle Party affairs, and carry out the Party activities.	**Article 177** In accordance with the Constitution of the Communist Party of China, ~~the Company hereby set up the organization under the Communist Party of China and related working organs, and maintain staffing to handle Party affairs, and carry out the Party activities.~~ with the approval of the Party organization at the higher level, the Committee of Shandong Gold Mining Co., Ltd. of the Communist Party of China has been established. At the same time, the Disciplinary Inspection Committee of Shandong Gold Mining Co., Ltd. of the Communist Party of China has been established in accordance with the relevant regulations.

Original Articles	Amended Articles
Article 178 Members of the leading group of the Party organization of the Company shall be approved for appointment according to the management authority. The Party organization of the Company shall conduct regular re-election upon the expiry of its term of office pursuant to the relevant requirements.	**Article 178** ~~Members of the leading group of the Party organization of the Company shall be approved for appointment according to the management authority. The Party organization of the Company shall conduct regular re-election upon the expiry of its term of office pursuant to the relevant requirements.~~ The leading group of the Party Committee of the Company shall be arranged in accordance with the provisions of the Constitution of the Communist Party of China (《中國共產黨章程》) and the Regulations on the Work of the Organizations at the Primary Level of State-owned Enterprises of the Communist Party of China (Trial) (《中國共產黨國有企業基層組織工作條例(試行)》) according to the management authority. The leading group of the Party Committee generally consists of 5 to 9 members, with a maximum of 11 members, including a secretary of the Party Committee, 1 to 2 deputy secretaries and a secretary of the Discipline Inspection Committee. The leading group of the Company's Party Committee shall be approved in accordance with the management authority of corporate leaders.
Addition	**Article 179** The Party Committee of the Company shall, in accordance with the relevant regulations, set up the Party's grassroots committees, general branch committees and branch committees at each level, establish and improve the Party's working organizations, and maintain staffing to handle Party affairs. The Company shall provide necessary support and maintain sufficient funding for the activities of the Party organization. The Party organization of the Company shall hold regular general elections in accordance with the Regulations on Elections of Grassroots Organizations of the Communist Party of China (《中國共產黨基層組織選舉工作條例》).

Original Articles	Amended Articles
Article 179 The Party organization of the Company shall play the role of the leadership core and political core in the Company, and shall carry out the works by providing direction, managing the overall situation and ensuring implementation. It has always maintained a high degree of ideological, political and operational consistency with the Party Central Committee, resolutely implemented the Party's theories, lines, guidelines, and policies to ensure the correct direction of reform and development; insisted on collective leadership, promoted scientific decision-making and promoted the full observance of their economic responsibilities, political responsibilities and social responsibilities; strengthened the team building of leaders and talents in the enterprise, led the mass organization and given play to its role, and been dedicated to promoting the fulfillment of all tasks; strengthened daily education and management of Party members, given full play to the battle fortress role of a grassroots Party organization and the exemplary role of Party members, and earnestly pushed forward the construction of the Party work style and the clean government.	**Article ~~179~~80** ~~The Party organization of the Company shall play the role of the leadership core and political core in the Company, and shall carry out the works by providing direction, managing the overall situation and ensuring implementation. It has always maintained a high degree of ideological, political and operational consistency with the Party Central Committee, resolutely implemented the Party's theories, lines, guidelines, and policies to ensure the correct direction of reform and development; insisted on collective leadership, promoted scientific decision-making and promoted the full observance of their economic responsibilities, political responsibilities and social responsibilities; strengthened the team building of leaders and talents in the enterprise, led the mass organization and given play to its role, and been dedicated to promoting the fulfillment of all tasks; strengthened daily education and management of Party members, given full play to the battle fortress role of a grassroots Party organization and the exemplary role of Party members, and earnestly pushed forward the construction of the Party work style and the clean government.~~

Original Articles	Amended Articles
	The Party Committee of the Company shall play a leading role in setting the direction, managing the overall situation and ensuring the implementation, and discuss and decide on major issues of the Company in accordance with the regulations, with the main responsibilities as follows: (I) to strengthen the Party's political building of the Company, adhere to and implement the fundamental, basic and important systems of socialism with Chinese characteristics, and educate and guide all Party members to maintain a high degree of consistency with the Party Central Committee with Comrade XI Jinping as the core in terms of political stance, political direction, political principles and political path; (II) to thoroughly study and implement the Xi Jinping Thought on Socialism with Chinese Characteristics in the New Era, learn and publicize the theories of the Party, implement the Party's lines, guidelines and policies, supervise and ensure the implementation of the major decisions and deployments of the Party Central Committee and the resolutions of the Party organizations of the higher level in the Company; to promote the Company in shouldering responsibilities and missions, focusing on the main responsibilities and main businesses, serving major strategies of the country and the province, and fully performing the economic, political and social responsibilities; (III) to study and discuss major operation and management issues of the Company, and support the general meeting, the board of directors, the supervisory committee and the management in exercising their functions and powers in accordance with the law;

Original Articles	Amended Articles
	(IV) to strengthen the leadership and gatekeeping role in the process of selection and appointment of personnel of the Company, and the building of the leading group, cadre and talents team of the Company; (V) to undertake the main responsibility of governing the Party comprehensively in a strict manner, lead and support the disciplinary and supervisory organizations to fulfil their supervisory and disciplining responsibilities as well as exercise strict administrative disciplines and political rules and promote Party's strict self-governance in every aspect to the primary level; (VI) to improve the Party's conduct construction of the Company, strictly implement the spirit of the Central Committee's eight-point decision, and resolutely oppose the "Four Malfeasances", especially formalism and bureaucracy; (VII) to strengthen the building of primary-level Party organizations and their contingent of Party members, unite and lead officials and employees to devote themselves into the reform and development of the Company; (VIII) to lead the Company's ideological and political work, the spirit and civilization progress and the united front work, and lead mass organizations such as the labor union, Communist Youth League and Women's Organization of the Company.

Original Articles	Amended Articles
Article 180 The Company has improved and perfected related systems, clarified the boundaries of rights and responsibilities between the Party organization and other corporate governance entities, and formed a seamless transition to form a corporate governance mechanism that performs its own duties and takes full responsibility for its own responsibilities, operates in coordination and effectively checks and balances.	**Article 18~~0~~1** ~~The Company has improved and perfected related systems, clarified the boundaries of rights and responsibilities between the Party organization and other corporate governance entities, and formed a seamless transition to form a corporate governance mechanism that performs its own duties and takes full responsibility for its own responsibilities, operates in coordination and effectively checks and balances.~~ The Company has established a decision-making mechanism of the Party Committee to specify the scope and procedures of the Party Committee's decision-making and engagement in decision-making on major issues, and clarify the rights and responsibilities of the Party Committee, the board of directors, the supervisory committee, the management and other governance entities. Major operation and management matters shall be first deliberated and discussed by the Party Committee before they are submitted to the board of directors or the management for determination in accordance with the authority and prescribed procedures.

Original Articles	Amended Articles
Article 181 The Party organization of the Company shall improve the mechanism for discussing affairs and making decisions, strictly implement democratic centralism, adhere to collective leadership, democratic centralism, individual deliberation and making decisions at meetings. In accordance with the prescribed procedures, in the process of senior management selection, the Party committee shall examine the nominated candidates and deliberately put forward their opinions. The Party committee shall study and discuss the material matters regarding the Company's reform and stable development as well as major issues relating to the Company's operation, management and staff's benefits, and propose opinions and suggestions thereon. When making decisions on significant matters of the Company, the board of directors should seek advice from the Party organization.	**Article 18~~1~~2** ~~The Party organization of the Company shall improve the mechanism for discussing affairs and making decisions, strictly implement democratic centralism, adhere to collective leadership, democratic centralism, individual deliberation and making decisions at meetings. In accordance with the prescribed procedures, in the process of senior management selection, the Party committee shall examine the nominated candidates and deliberately put forward their opinions. The Party committee shall study and discuss the material matters regarding the Company's reform and stable development as well as major issues relating to the Company's operation, management and staff's benefits, and propose opinions and suggestions thereon. When making decisions on significant matters of the Company, the board of directors should seek advice from the Party organization.~~ The Party Committee shall strictly control the authorization and decision-making plan of the board of directors to prevent irregular or excessive authorization. The Party Committee generally does not conduct preliminary research and discussion on decision-making matters authorized by the board of directors to the chairman and the management.
Article 182 The Company shall provide necessary support and maintain sufficient funding for the activities of the Party organization.	**Article 18~~2~~3** ~~The Company shall provide necessary support and maintain sufficient funding for the activities of the Party organization.~~ The Company adheres to and improves the "two-way entry, cross-appointment" leadership system, under which eligible members of the Party Committee can enter the board of directors and the management through legal procedures, while eligible Party members among the members of board of directors and the management can enter the Party Committee in accordance with relevant regulations and procedures.

Original Articles	Amended Articles
Article 227 The board of directors shall submit the financial reports required by relevant laws, regulations, rules and normative documents to be submitted to shareholders at each annual general meeting. The Company's financial reports shall be made available for shareholders' inspection at the Company 20 days before the date of every annual general meeting. Each shareholder of the Company shall be entitled to obtain a copy of the financial reports referred to in this chapter. Unless otherwise specified in the Articles of Association, the Company shall deliver or send to each shareholder of overseas listed shares by prepaid mail at the address registered in the register of shareholders the said reports, the report of directors, together with the balance sheet (including every document to be attached to the balance sheet as required by the law) and statement of profit or loss or the statement of income and expenditure not later than twenty-one days before the date of every annual general meeting. Such documents may also be delivered to shareholders of overseas listed shares through the Company's website, the website of the Hong Kong Stock Exchange and other websites as may be provided by the Hong Kong Listing Rules from time to time, provided that the laws, administrative regulations and requirements of the securities regulatory authority at the place where the shares of the Company are listed are observed.	**Article 22~~7~~8** The board of directors shall submit the financial reports required by relevant laws, regulations, rules and normative documents to be submitted to shareholders at each annual general meeting. The Company's financial reports shall be made available for shareholders' inspection at the Company 20 days before the date of every annual general meeting. Each shareholder of the Company shall be entitled to obtain a copy of the financial reports referred to in this chapter. Unless otherwise specified in the Articles of Association, the Company shall ~~deliver or send~~ provide ~~to~~ each shareholder of overseas listed shares ~~by prepaid mail at the address registered in the register of shareholders~~ with the said reports, the report of directors, together with the balance sheet (including every document to be attached to the balance sheet as required by the law) and statement of profit or loss or the statement of income and expenditure not later than twenty-one days before the date of every annual general meeting. Such documents may also be ~~delivered~~ provided ~~to shareholders of overseas listed shares~~ through the Company's website, the website of the Hong Kong Stock Exchange and other websites as may be provided by the Hong Kong Listing Rules from time to time, provided that the laws, administrative regulations and requirements of the securities regulatory authority at the place where the shares of the Company are listed are observed.

Original Articles	Amended Articles
Article 248 Paragraph 2 and Paragraph 3 Save as otherwise specified in the context, the "announcement" as mentioned in the Articles of Association, in respect of the announcement sent to holders of domestic shares or required to be sent in China pursuant to relevant regulations and the Articles of Association, refers to announcement published in the newspapers and periodicals in China, which shall be as specified in PRC laws and administrative regulations or designated by the securities regulatory authority under the State Council; for notice issued by the Company to the shareholders of overseas-listed foreign-invested Shares (by way of announcement), the Company shall on the same day submit an electronic version to the Hong Kong Stock Exchange through the Hong Kong Stock Exchange EPS for immediate release on the website of the Hong Kong Stock Exchange or publish an announcement in newspapers (including the publication of an advertisement in newspapers) in accordance with the rules of the listing place. The announcement shall also be published on the Company's website. In addition, unless otherwise specified in the Articles of Association, the notice shall be delivered to each of the registered addresses as appeared in the register of members of overseas-listed foreign-invested Shares by personal delivery or postage paid mail so as to give the shareholders sufficient notice and time to exercise their rights or act in accordance with the terms of the notice.	**Article 2489 Paragraph 2 and Paragraph 3** Save as otherwise specified in the context, the "announcement" as mentioned in the Articles of Association, in respect of the announcement sent to holders of domestic shares or required to be sent in China pursuant to relevant regulations and the Articles of Association, refers to announcement published in the newspapers and periodicals in China, which shall be as specified in PRC laws and administrative regulations or designated by the securities regulatory authority under the State Council; ~~for~~ notice issued by the Company to the shareholders of overseas-listed foreign-invested Shares (by way of announcement)~~, the Company shall on the same day submit an electronic version to the Hong Kong Stock Exchange through the Hong Kong Stock Exchange EPS for immediate~~ shall be released on the website of the Hong Kong Stock Exchange~~ or publish an announcement in newspapers (including the publication of an advertisement in newspapers) in accordance with the rules of the listing place~~. The announcement shall also be published on the Company's website. ~~In addition, unless otherwise specified in the Articles of Association, the notice shall be delivered to each of the registered addresses as appeared in the register of members of overseas-listed foreign-invested Shares by personal delivery or postage paid mail so as to give the shareholders sufficient notice and time to exercise their rights or act in accordance with the terms of the notice.~~

Original Articles	Amended Articles
The holders of overseas listed foreign shares of the Company may choose in written form to obtain (by email or by post) the information of the Company that the Company shall send to the shareholders, and may choose to receive either or both of the Chinese and English versions. They may also change the method for receiving the aforesaid information and the language version to be received as per appropriate procedures by sending a written notice to the Company in advance within a reasonable period.	~~The holders of overseas listed foreign shares of the Company may choose in written form to obtain (by email or by post) the information of the Company that the Company shall send to the shareholders, and may choose to receive either or both of the Chinese and English versions. They may also change the method for receiving the aforesaid information and the language version to be received as per appropriate procedures by sending a written notice to the Company in advance within a reasonable period.~~ The Company shall provide corporate communications to the shareholders of overseas-listed foreign-invested Shares in accordance with the requirements of the Hong Kong Listing Rules.
Article 250 Any notice of general meetings of the Company shall be sent by public announcement. Any notice for convening a meeting of the board of directors and the supervisory committee of the Company shall be given by hand, fax, telephone, email or other means.	**Article 25~~0~~1** Any notice of general meetings of the Company shall be sent by public announcement or other means stipulated by the listing rules of the place where the shares of the Company are listed. Any notice for convening a meeting of the board of directors and the supervisory committee of the Company shall be given by hand, fax, telephone, email or other means.

Note: Save for the above-mentioned amendments of articles, other contents in the Articles of Association remain unchanged. If the numbering of the articles has been changed due to the addition or deletion of certain articles, the numbering of the articles in the Articles of Association shall be adjusted accordingly, including the numbering of other articles quoted in the relevant articles. The Amendments to the Articles of Association, which were prepared in the Chinese language, are set out in this circular. In the event of any discrepancy between the Chinese and the English version of the Amendments to the Articles of Association, the Chinese version shall prevail.

Relevant amendments to the Articles of Association will be proposed at the EGM for consideration. The amended Articles of Association shall be filed with the market regulation and administration authority after the passing at the EGM, and the above amendments to the Articles of Association shall ultimately be subject to the contents filed with the market regulation and administration authority.

IV. EGM

The EGM is to be held at the conference room of the Company, No. 2503, Jingshi Road, Licheng District, Jinan, Shandong Province, the PRC at 10:00 a.m. on Thursday, 7 March 2024. The notice of the EGM is set out in Appendix III to this circular.

Any Shareholder entitled to attend and vote at the EGM is entitled to appoint one or more proxies to attend and vote on his behalf. A proxy needs not be a Shareholder. If you intend to appoint a proxy to attend the EGM and vote on your behalf, you are requested to complete the accompanying proxy form in accordance with the instructions printed thereon and return it by hand, by post or by facsimile, to the Company's H Share registrar, Tricor Investor Services Limited at 17/F, Far East Finance Centre, 16 Harcourt Road, Hong Kong (for H Shareholders only) as soon as possible and in any event not later than 24 hours before the time appointed for the holding of the EGM (i.e. before 10:00 a.m. on Wednesday, 6 March 2024) or any adjournment thereof (as the case may be). Completion and return of the proxy form will not preclude you from attending and voting at the EGM or any adjournment thereof should you so wish.

V. CLOSURE OF REGISTER OF MEMBERS

For the purpose of ascertaining the Shareholders who are entitled to attend and vote at the EGM, the register of members of H Shares will be closed from Monday, 4 March 2024 to Thursday, 7 March 2024, both dates inclusive, during which period no transfers of H Shares will be effected. H Shareholders whose names appear on the H Share register of members of the Company at the close of business on Friday, 1 March 2024 are entitled to attend and vote at the EGM.

For the purpose of ascertaining the Shareholders who are entitled to attend and vote at the EGM, all transfer instruments accompanied by the relevant share certificates must be lodged by H Shareholders with the Company's H Share registrar, Tricor Investor Services Limited at 17/F, Far East Finance Centre, 16 Harcourt Road, Hong Kong no later than 4:30 p.m. on Friday, 1 March 2024.

VI. VOTING

Pursuant to Rule 13.39(4) of the Hong Kong Listing Rules and Article 119 of the Articles of Association, unless the chairman of the meeting makes a decision in the spirit of honesty and credibility and agrees that the resolutions on relevant procedures or administrative matters shall be voted on by show of hands, voting for a general meeting shall be held by ballot.

Pursuant to Article 111 of the Articles of Association, Shareholders (including proxies) shall exercise their voting rights according to the number of voting shares they represent, with one vote for each share. Pursuant to Article 120 of the Articles of Association, on a poll taken at a meeting, a Shareholder (including proxy) entitled to two or more votes need not cast all his votes in the same way.

Any Shareholder who has a material interest in the Acquisition Agreement shall abstain from voting on the relevant resolution at the EGM. As at the Latest Practicable Date, SDG Group Co., the controlling Shareholder, and its subsidiaries directly and indirectly hold 2,039,142,984 A Shares, representing approximately 45.58% of the issued share capital of the Company and will be required to abstain from voting on the relevant resolution at the EGM. Save for SDG Group Co. and its subsidiaries, as at the Latest Practicable Date, to the best knowledge of the Directors, no other Shareholder would be required to abstain from voting on the relevant resolution as no other Shareholder has any interest in the Acquisition Agreement.

Save as disclosed above, no Shareholder will be required to abstain from voting on the resolutions at the EGM.

VII. RECOMMENDATION

The Independent Board Committee, having taken into account the advice of the Independent Financial Adviser, considers that the terms of the Acquisition Agreement and the transactions contemplated thereunder are on normal commercial terms, which are fair and reasonable, and are in the interests of the Company and the Shareholders as a whole. Accordingly, the Independent Board Committee recommends the Independent Shareholders to vote in favour of the ordinary resolution to approve the Acquisition Agreement and the transactions contemplated thereunder at the EGM.

The Board is of the view that the resolutions proposed at the EGM are fair and reasonable and in the best interests of the Company and its Shareholders as a whole. Accordingly, the Directors recommend the Shareholders to vote in favour of the resolutions to be proposed at the EGM.

Yours faithfully,
By order of the Board
Shandong Gold Mining Co., Ltd.
Li Hang
Chairman

SHANDONG GOLD MINING CO., LTD.
山東黃金礦業股份有限公司

(a joint stock company incorporated in the People's Republic of China with limited liability)

(Stock Code: 1787)

21 February 2024

To the Independent Shareholders

Dear Sir or Madam,

DISCLOSEABLE AND CONNECTED TRANSACTION
ACQUISITION OF XILING GOLD MINE EXPLORATION RIGHT

We refer to the circular of the Company dated 21 February 2024 (the "**Circular**") of which this letter forms part. Terms defined in the Circular shall have the same meanings herein unless the context otherwise requires.

We have been appointed to form the Independent Board Committee to advise the Independent Shareholders as to whether, the terms of the Acquisition Agreement and the transactions contemplated thereunder, the details of which are set out in the letter from the Board contained in the Circular, are fair and reasonable and in the interests of the Company and the Independent Shareholders as a whole. Lego has been appointed to advise the Independent Board Committee and the Independent Shareholders in this regard.

Your attention is drawn to the letter from the Board set out on pages 5 to 37 of the Circular and the letter from the Independent Financial Adviser set out on pages 39 to 61 of the Circular.

Having considered the advice of the Independent Financial Adviser, we are of the opinion that so far as the Company and the Independent Shareholders are concerned, although the terms of the Acquisition Agreement and the transactions contemplated thereunder are not conducted in the ordinary and usual course of business of the Group, they are entered into on normal commercial terms, and are fair and reasonable and in the interests of the Company and the Independent Shareholders as a whole. Accordingly, we recommend the Independent Shareholders to vote in favour of the relevant resolution to be proposed at the EGM.

Yours faithfully,
For and on behalf of the Independent Board Committee
Mr. Wang Yunmin, Mr. Liew Fui Kiang and Ms. Zhao Feng
Independent non-executive Directors

The following is the full text of the letter of advice from Lego Corporate Finance Limited, the Independent Financial Adviser to the Independent Board Committee and the Independent Shareholders in respect of the Acquisition, which has been prepared for the purpose of inclusion in this circular.

Lego Corporate Finance Limited
力高企業融資有限公司

21 February 2024

To the Independent Board Committee and the Independent Shareholders

Dear Sirs or Madams,

DISCLOSEABLE AND CONNECTED TRANSACTION ACQUISITION OF XILING GOLD MINE EXPLORATION RIGHT

INTRODUCTION

We refer to our appointment as the Independent Financial Adviser to the Independent Board Committee and the Independent Shareholders in respect of the Acquisition, details of which are set out in the letter from the Board (the "**Letter from the Board**") contained in the circular issued by the Company to the Shareholders dated 21 February 2024 (the "**Circular**"), of which this letter forms part. Capitalised terms used in this letter shall have the same meanings as those defined in the Circular unless the context otherwise requires.

On 26 January 2024 (after trading hours), the Company and Shandong Gold Exploration entered into the Acquisition Agreement, pursuant to which Shandong Gold Exploration agreed to sell and the Company agreed to acquire the Xiling Gold Mine Exploration Right, at a consideration of RMB10,334,248,700.

As one or more of the relevant applicable percentage ratios (as defined under the Hong Kong Listing Rules) are more than 5% but less than 25%, the Acquisition constitutes a discloseable transaction of the Company under Chapter 14 of the Hong Kong Listing Rules and will be subject to reporting and announcement requirements under Chapter 14 of the Hong Kong Listing Rules.

Furthermore, SDG Group Co. is the controlling Shareholder, directly and indirectly holding approximately 45.58% of the issued share capital of the Company as at the Latest Practicable Date. Shandong Gold Exploration is an indirect wholly-owned subsidiary of SDG Group Co. Accordingly, the Acquisition constitutes a connected transaction of the Company under Chapter 14A of the Hong Kong Listing Rules and is subject to reporting, announcement, circular and Independent Shareholders' approval requirements under Chapter 14A of the Hong Kong Listing Rules.

THE INDEPENDENT BOARD COMMITTEE

The Independent Board Committee comprising all the independent non-executive Directors, namely Mr. Wang Yunmin, Mr. Liew Fui Kiang and Ms. Zhao Feng, has been established by the Company to advise the Independent Shareholders as to (i) whether the terms of the Acquisition Agreement and the transactions contemplated thereunder are on normal commercial terms and fair and reasonable so far as the Independent Shareholders are concerned; and (ii) whether the Acquisition is in the ordinary and usual course of business of the Group and in the interests of the Company and the Shareholders as a whole. We, Lego Corporate Finance Limited, have been appointed as the Independent Financial Adviser to advise the Independent Board Committee and the Independent Shareholders in such regard.

OUR INDEPENDENCE

As at the Latest Practicable Date, Lego Corporate Finance Limited did not have any relationships or interests with the Company, Shandong Gold Exploration or any other parties that could reasonably be regarded as relevant to the independence of Lego Corporate Finance Limited. In the last two years, Lego Corporate Finance Limited had acted as independent financial adviser to the Company in relation to the new comprehensive service framework agreement regarding the procurements contemplated thereunder (including the proposed annual caps), details of which was disclosed in the circular of the Company dated 11 December 2023. Apart from normal professional fees paid or payable to us in connection with the previous appointment mentioned above as well as this appointment as the independent financial adviser, no arrangements exist whereby we have received or will receive any fees or benefits from the Company, Shandong Gold Exploration or any other party to the transactions. Accordingly, we are qualified to give independent advice in respect of the Acquisition.

BASIS OF OUR OPINION

In formulating our opinion and advice, we have relied on (i) the information and facts contained or referred to in the Circular; (ii) the information supplied by the Group and its advisers; (iii) the opinions expressed by and the representations of the Directors and the management of the Group (the "**Management**"); and (iv) our review of the relevant public information. We have assumed that all the information provided and representations and opinions expressed to us or contained or referred to in the Circular were true, accurate and complete in all respects as at the date thereof and may be relied upon. We have also assumed that all statements contained and representations made or referred to in the Circular are true at the time they were made and continue to be true as at the Latest Practicable Date and all such statements of belief, opinions and intention of the Directors and the Management and those as set out or referred to in the Circular were reasonably made after due and careful enquiry. We have no reason to doubt the truth, accuracy and completeness of the information and representations provided to us by the Directors and/or the Management. We have also sought and received confirmation from the Directors that no material facts have been withheld or omitted from the information provided and referred to in the Circular and that all information or representations provided to us by the Directors and the Management are true, accurate, complete and not misleading in all respects at the time they were made and continued to be so until the Latest Practicable Date.

We consider that we have reviewed the relevant information currently available to reach an informed view and to justify our reliance on the accuracy of the information contained in the Circular so as to provide a reasonable basis for our recommendation. We have not, however, carried out any independent verification of the information provided, representations made or opinion expressed by the Directors and the Management, nor have we conducted any form of in-depth investigation into the business, affairs, operations, financial position or future prospects of the Company or any of their respective subsidiaries or associates.

PRINCIPAL FACTORS AND REASONS CONSIDERED

In formulating our opinion in respect of the Acquisition, we have taken into consideration the following principal factors and reasons:

1. Background information of the Company

The Company is principally engaged in (i) mining, processing and sales of gold and gold products; (ii) manufacturing and sales of building decoration materials; and (iii) investment in equity funds, trading of gold bullion and provision of futures contracts trading services. Set out below are selected financial information of the Group for the two years ended 31 December 2021 and 2022 and six months ended 30 June 2022 and 2023 as extracted from the annual report of the Company for the year ended 31 December 2022 (the "**2022 Annual Report**") and the interim report of the Company for the six months ended 30 June 2023 (the "**2023 Interim Report**"):

	For the year ended 31 December		**For the six months ended 30 June**	
	2021	**2022**	**2022**	**2023**
	RMB'000	*RMB'000*	*RMB'000*	*RMB'000*
	(audited)	*(audited)*	*(unaudited)*	*(unaudited)*
Revenue	33,932,646	50,305,754	29,825,146	27,424,883
(Loss)/profit for the year/period	(229,514)	1,351,463	577,086	979,834

	As at 31 December		**As at 30 June**
	2021	**2022**	**2023**
	RMB'000	*RMB'000*	*RMB'000*
	(audited)	*(audited)*	*(unaudited)*
Total assets	79,036,550	91,216,092	99,851,743
Total liabilities	47,075,671	54,413,924	62,619,654
Net assets	31,960,879	36,802,168	37,232,089

As illustrated in the table above, revenue of the Group amounted to approximately RMB50,305.8 million for the year ended 31 December 2022, representing a surge of approximately 48.3% as compared to that of approximately RMB33,932.6 million for the year ended 31 December 2021. The net profit of the Group for the year ended 31 December 2022 amounted to approximately RMB1,351.5 million, illustrated a significant improvement as compared to the net loss of approximately RMB229.5 million for the year ended 31 December 2021. According to the 2022 Annual Report, the improved operation of the Group was mainly due to the increase in sales volume and sales price of self-produced gold, externally procured alloy gold and finished gold. The increase in net profit was in line with the increase in revenue.

According to the 2023 Interim Report, the revenue of the Group amounted to approximately RMB27,424.9 million for the six months ended 30 June 2023, representing a decrease of approximately 8.1% as compared to that of approximately RMB29,825.1 million for the six months ended 30 June 2022, mainly due to the decrease in sales volume of self-produced gold, externally procured alloy gold and trade revenue. However, the Group recorded a net profit of approximately RMB979.8 million for the six months ended 30 June 2023, representing an increase of approximately 69.8%, as compared to that of approximately RMB577.1 million for the six months ended 30 June 2022. Such increase was mainly due to the increase in gross profit of self-produced gold business as a result of the increase in the gold price for the six months ended 30 June 2023.

As at 31 December 2022, the net assets of the Group were approximately RMB36,802.2 million, representing an increase of approximately 15.2% as compared to that as at 31 December 2021. Such increase was mainly contributed by (i) the increase in property, plant and equipment; and (ii) the increase in bank balances and cash, as a result of the net profit recorded for the six months ended 30 June 2023. As at 30 June 2023, the net assets of the Group increased slightly to approximately RMB37,232.1 million.

2. Information on the parties involved

The Company

The Company was established by its promoters with approval from the Shandong Province Economic System Reform Commission (山東省經濟體制改革委員會) and the People's Government of Shandong Province (山東省人民政府) in January 2000. The Company is an integrated gold company listed on the SSE and the Hong Kong Stock Exchange since 2003 and 2018, respectively and engaged in gold exploration, mining, processing, smelting and sales. It is one of the largest gold producers listed domestically and/or in Hong Kong that operates in the PRC, controlling and operating more than 10 gold mines with operation primarily located in Shandong Province. The Company has gradually expanded its business into the Inner Mongolia Autonomous Region, Gansu Province, Xinjiang Uyghur Autonomous Region, Fujian Province and Argentina, South America and Ghana, Africa.

Shandong Gold Exploration

Shandong Gold Exploration is a company established in the PRC with limited liability on 3 January 2003 and is held as to 100% by Shandong Gold Resources Development Co., Ltd., which in turn is held as to 100% by SDG Group Co.. Shandong Gold Exploration is principally engaged in mineral resources exploration, and geological exploration for metal and non-metal mineral resources.

SDG Group Co.

SDG Group Co. is the controlling Shareholder of the Company. SDG Group Co. is a state-owned enterprise established in the PRC in July 1996 and is one of the leading gold mining companies in the PRC. SDG Group Co. engages in gold mining related operations, including geological exploration and mining of gold, gold processing, gold smelting and technical services, and production and sales of specialized equipment and supplies and construction materials for gold mines. The gold resources of SDG Group Co. are mainly located in the PRC.

3. Reasons for and benefits of the Acquisition

As disclosed in the Letter from the Board, the Company has taken into consideration the following reasons for and benefits of the Acquisition:

(i) Implementing the overall approval requirements of the People's Government of Shandong Province on the consolidation of gold mineral resources and expeditiously taking forward the consolidation of mineral rights

On 26 July 2021, the People's Government of Shandong Province issued the Approval of the People's Government of Shandong Province on the Gold Mineral Resources Consolidation Plan for the Eight Districts (Cities) of Yantai City (《山東省人民政府關於煙台市8個區(市)金礦礦產資源整合方案的批覆》) (Lu Zheng Zi [2021] No. 133) (the "**Approval**"). In order to actively implement the opinions set out in the Approval, the Company promotes the mineral rights consolidation work in respect of the mineral rights relating to the metallogenic belt of Sanshandao Gold Mine under the Company and SDG Group to ensure that the Xiling Gold Mine Exploration Right will be injected into the Company as soon as possible.

(ii) Increasing resources reserve, expanding production scale and leveraging synergies to improve the asset scale and profitability of the Company

Gold resource reserves determine the future development potential and space of gold companies. The Xiling Gold Mine Exploration Right, the target asset of the Acquisition, is the largest (world-class giant) single gold deposit explored in the PRC to date with abundant resources reserves. The implementation of the Acquisition will be conducive to further increasing the Company's gold resource reserves, expanding its production scale and strengthening the scale effect, and thus enhancing the core competitiveness of the Company.

The mine area under the Xiling Gold Mine Exploration Right (the "**Xiling Gold Mine**") is located on the eastern side of Sanshandao Gold Mine and is an extension of the ore body of Sanshandao Gold Mine along the strike and inclination, which is feasible for the consolidation of the mining rights and can realise geographical concentration. Upon completion of the consolidation, the Xiling Gold Mine Exploration Right and the mining right of Sanshandao Gold Mine will be merged into one mineral right. The resource advantages of Xiling Gold Mine can be fully utilised with the existing infrastructure and mining and processing system, engineering facilities and staffing of Sanshandao Gold Mine, which is conducive to realising intensive mining and reducing mining costs, improving resources utilisation efficiency and enhancing the Company's profitability. Upon the completion of the Acquisition, by organising the project construction on a scientific basis, the construction cycle of the mine can be shortened, the costs of engineering facilities can be reduced, the early exploitation and early utilisation of resources can be achieved and thus economic benefits can be realised as soon as possible.

(iii) Reducing horizontal competition and realizing the overall listing of high-quality gold resources within SDG Group

The implementation of the Acquisition can inject existing gold mineral rights that meet the listing requirements under SDG Group into the Company. This will not only help realise the overall listing of high-quality gold resources within SDG Group, but also reduce horizontal competition between SDG Group and the Company, and does not involve increase of connected transactions, thereby further implementing regulatory requirements for the listed company.

(iv) The Company has adequate liquidity and smooth financing channels, which will not adversely affect the liquidity of the Company

At present, the Company has sound reserve of liquidity, as well as sufficient external credit facilities and smooth financing channels. There is no obstacle for payment of the consideration for the Acquisition and the liquidity for the Company's normal production and operation will not be adversely affected. Upon completion of the Acquisition, the exploration right of Xiling Gold Mine will be integrated and developed with the mining right of Sanshandao Gold Mine, as a result, the commencement of production will last longer, and the contribution to the net profit of the Company will need to be released on a yearly basis. The financial costs incurred from payment of the consideration for the Acquisition will have a certain diluted effect on the Company's profit in the short run. The Target Exploration Right will contribute to the Company's long-term and sustainable profit in the future after being put into production, which will also have a positive impact on the Company's ability to improve its profitability and core competitiveness in the long term.

(v) The connected transaction does not involve any change in management, personnel resettlement, land leasing, etc.

The Acquisition does not involve any change in management, personnel resettlement and land leasing of Shandong Gold Exploration, Shandong Gold Mining (Laizhou) Co., Ltd. (山東黃金礦業(萊州)有限公司) and Sanshandao Gold Mine. The land involved will be included in the coordination and consideration for development and utilisation plan of Sanshandao Gold Mine integration area after the Acquisition.

Having considered, in particular, (i) the Acquisition is in line with the principal business of the Group; (ii) the abovementioned reasons and benefits of the Acquisition; (iii) the trend of regulatory requirements on the consolidation of gold mineral resources and mineral rights; and (iv) the Acquisition is in line with the future development plan and strategy of the Group, we concur with the Directors' view that although the Acquisition is not in the ordinary and usual course of business of the Group, it is in the interests of the Company and the Shareholders as a whole.

4. The principal terms of the Acquisition Agreement

The principal terms of the Acquisition Agreement are summarised as follows:

Consideration

In connection with the acquisition of the Xiling Gold Mine Exploration Right, the consideration payable to Shandong Gold Exploration by the Company under the Acquisition Agreement amounted to RMB10,334,248,700. The consideration is determined after arm's length negotiations between the parties with reference to the appraised value of the Xiling Gold Mine Exploration Right as at the Valuation Reference Date after deducting the discounted value of the transfer income payable for the Xiling Gold Mine Exploration Right. According to the Valuation Report issued by the Valuer, the appraised value of the Xiling Gold Mine Exploration Right was RMB11,028,801,300 as at the Valuation Reference Date. According to the Notice on Issuing the Measures for the Collection of Income from the Transfer of Mineral Rights (《關於印發〈礦業權出讓收益徵收辦法〉的通知》) (Caizong [2023] No. 10), the Valuer has estimated the transfer income which is required to be paid for the Xiling Gold Mine Exploration Right in the future, the discounted value of which is RMB691,247,900 based on the discount rate adopted in the valuation. For further details, please refer to the section headed "7. Analysis on the fairness and reasonableness on the consideration" below.

Payment method

The Company has set up installment payment terms for the consideration of the Acquisition. RMB6,707,941,800 of the consideration shall be paid by the Company in cash within one year after the effective date of the Acquisition Agreement. The specific payment arrangements are set out below:

(i) The Company shall pay the first instalment of RMB2,012,382,540 to Shandong Gold Exploration within 10 working days upon the approval of the Acquisition by the Shareholders' general meeting of the Company. In the event that the Acquisition is not approved by the natural resources competent authorities, Shandong Gold Exploration shall return the sum within 10 working days after receiving the notice from the Company;

(ii) the Company shall pay the second instalment of RMB2,012,382,540 within 30 working days after the completion of the notification of the transfer of mineral rights by the natural resources' competent authorities for the Xiling Gold Mine Exploration Right; and

(iii) the Company shall pay the third instalment of RMB2,683,176,720 within 10 working days after the change of the proprietor stated in the certificate of the Xiling Gold Mine Exploration Right to the Company.

The remaining RMB3,626,306,900 of the consideration shall be paid by way of separate negotiation between the parties. If both parties fail to agree on the specific payment method by 31 December 2026, the Company shall pay in cash, in which case the Company shall pay the remaining RMB3,626,306,900 of the consideration in one lump sum to Shandong Gold Exploration within 20 working days upon receipt of the payment notice issued by Shandong Gold Exploration. Overdue payments shall bear an interest at the bank lending rate for the same period.

The Company intends to pay the consideration with its self-owned funds and self-raised funds.

Completion

Shandong Gold Exploration shall, within 15 working days after the effective date of the Acquisition Agreement, hand over to the Company all the information on the Xiling Gold Mine Exploration Right and cooperate with the Company in the formalities for the transfer of the Xiling Gold Mine Exploration Right.

Liability for breach of contract

A party that commits a breach of contract shall be liable for the corresponding breach of contract.

If Shandong Gold Exploration fails to cooperate with the Company in completing the transfer formalities according to the Acquisition Agreement, and remains so after being reminded by the Company, Shandong Gold Exploration shall be liable for liquidated damages of one ten-thousandth of the consideration for each overdue day; and if the Company fails to pay the consideration according to the contract, the Company shall be liable for liquidated damages of one ten thousandth of the outstanding amount payable for each overdue day.

Effective Conditions

The Acquisition Agreement shall become effective on the date when all the following conditions have been fulfilled:

(i) Shandong Gold Exploration having obtained valid approval of the Acquisition;

(ii) the Company having obtained approval from the Shareholders' general meeting; and

(iii) the approval of the Acquisition by the natural resources competent authorities having been obtained.

As at the Latest Practicable Date, as Shandong Gold Exploration has obtained approval from SDG Group Co., condition (1) has been satisfied.

Profit guarantee and compensation

As disclosed in the Letter from the Board, the Company has set up profit guarantee and compensation terms for the Acquisition as follows:

1. According to the Valuation Report, the Target Exploration Right's planned output will be achieved and its stable profits will be generated starting from 2031. Therefore, the profit guarantee period of Shandong Gold Exploration will be 2031, 2032 and 2033.

2. Shandong Gold Exploration guarantees that the net profit of the Target Exploration Right for each of the three years from 2031 to 2033 after deducting the transfer income expected to be paid and without taking into account the net profit after the amortisation of mineral right shall be no less than RMB2,302,091,400, RMB2,300,553,000 and RMB2,293,974,900, respectively, except in the event of Force Majeure that prevents the fulfillment of the guaranteed profit, which are in line with the financial projections in the Valuation Report. Please refer to the sub-section headed "II. PROPOSED ACQUISITION OF XILING GOLD MINE EXPLORATION RIGHT — B. PROFIT GUARANTEE AND COMPENSATION — (II) Profit Guarantee Period and Guaranteed Profits" in the Letter from the Board for the details of calculation of such guaranteed profits.

   In the event that the Target Exploration Right is put into production early after its conversion into a mining right, the profit guarantee period of Shandong Gold Exploration shall be advanced accordingly. The first full fiscal year after fully reaching its planned output shall be the first year of the guarantee period which shall last for three years. The guaranteed net profit shall remain no less than RMB2,302,091,400, RMB2,300,553,000 and RMB2,293,974,900, respectively, except in the event of Force Majeure that prevents the fulfillment of the guaranteed profit.

3. After the end of each fiscal year of the performance guarantee period, the Company will engage an accounting firm to issue a special audit report on the difference between the Target Exploration Right's actual net profit and the guaranteed net profit for the year.

   In the event that the accumulated actual net profit of the Target Exploration Right in each year during the performance guarantee period are lower than the accumulated guaranteed net profit, Shandong Gold Exploration shall compensate the Company in cash in an amount calculated according to the following formula:

   The compensation amount for the current period = (the accumulated guaranteed net profit of the Target Exploration Right as of the end of the current period – the accumulated actual net profit of the Target Exploration Right as of the end of the current period[Note])/the sum of the guaranteed net profit of the Target Exploration Right during the performance guarantee period × the transaction consideration – the accumulated compensated amounts.

Note: Based on the information currently available to the Company, the Company expects that under normal circumstances, there will be no incurring of losses for the Target Exploration Right during the performance guarantee period. If losses are incurred for the Target Exploration Right during the performance guarantee period and are not due to Force Majeure, such losses should be calculated as negative values.

Where the compensation amount calculated according to the above formula is negative, it shall be deemed as zero. In such case, Shandong Gold Exploration is not required to pay any profit compensation to the Company. The amounts compensated by Shandong Gold Exploration will not be reversed as a result of excess performance in subsequent years during the performance guarantee period.

As the accounting will be performed on asset groups (i.e. the Target Exploration Right), there will be no income or loss generated by activities outside the ordinary and usual course of business.

4. In the event that the performance compensation conditions are triggered, Shandong Gold Exploration shall pay the amounts within 10 working days from the date on which the special audit report is issued and the Company's annual financial report is approved at the Shareholders' general meeting.

Such profit guarantee and compensation are formulated with reference to the A-share market practice and the requirements of the Shanghai Stock Exchange. Moreover, the guarantee period of the Xiling Gold Mine Exploration Right is only the first three years after achieving production and generating profits while there are still 33 years for the Xiling Gold Mine Exploration Right to be mined after the guarantee period, taking into account of the actual service life of the mine of 36 years. Additionally, the resources under the Xiling Gold Mine Exploration Right reached 592.186 tons of gold metal according to the Exploration Report, and they will be owned by the Group after the completion of the Acquisition regardless of the performance of the profit guarantee. Having considered the aforesaid factors, the Directors are of the view, and we concur, that such profit guarantee and compensation are fair and reasonable, and are in the interests of the Company and its shareholders as a whole.

As further disclosed in the Letter from the Board, considering that Shandong Gold Exploration is a subsidiary of SDG Group Co., and Shandong Gold Exploration is creditworthy since its establishment and has no major bad credit records, the Company believes that Shandong Gold Exploration has sufficient compensation capacity to pay such profit guarantee (if necessary). In this regard, we have performed a desktop search on the internet on Shandong Gold Exploration and we are not aware of any negative issues regarding the credibility of Shandong Gold Exploration. Moreover, as mentioned in the section headed "2. Information on the parties involved" above, SDG Group Co., the ultimate parent company of Shandong Gold Exploration, is a long-established state-owned enterprise and one of the leading gold mining companies in the PRC. We also noted from the official website of SDG Group Co. that in the third quarter of 2023, (i) its total assets and total equity reached approximately RMB202.2 billion and RMB69.5 billion, respectively; and (ii) it recorded a total revenue of approximately RMB128.7 billion. Accordingly, we consider that, with the financial strength of SDG Group Co., Shandong Gold Exploration possesses the ability to fulfill the compensation obligations under the said profit guarantee.

Considering (i) the provision of profit guarantee by Shandong Gold Exploration for the guarantee period has demonstrated their confidence in the future performance of the Xiling Gold Mine; (ii) the Company would be able to secure compensation in cash from Shandong Gold Exploration in the event that the profit guarantee is not met; (iii) in the event that the net profit resulted from the production of the Xiling Gold Mine is less than the profit guarantee, or resulted in a loss during the guarantee period, the compensation in cash from Shandong Gold Exploration

would be able to safeguard the Group from incurring a loss from the Acquisition; and (iv) the Directors' belief that the subsequent conversion of the exploration right into mining right by responsible government authorities is generally expected to be procedural in nature and will be completed with no practical impediment in the near future, the Directors are of the view, and we concur, that the profit guarantee and compensation serve as an additional favourable term of the Acquisition and are in the interests of the Company and the Shareholders as a whole.

5. Information on the Xiling Gold Mine Exploration Right

As disclosed in the Letter from the Board, the key information on the Xiling Gold Mine Exploration Right is set out as follow:

Background information

Exploration right holder: Shandong Gold Exploration

License no.: T3700002009084010033093

Exploration project name: Exploration and Prospecting Right of Xiling Village Gold Mine in Laizhou City, Shandong Province

Location: Laizhou City, Shandong Province

Drawing no.: J50E016024

Exploration area: 4.59 square kilometers

Validity period: 20 April 2023 to 19 April 2028

Issuing authority: Department of Natural Resources of Shandong Province (山東省自然資源廳)

Shandong Gold Exploration, the exploration right holder of Xiling Gold Mining Exploration Right, has legally obtained the exploration license with clear ownership, free from mortgage, pledge and any other restrictions on transfer, and it is not involved in any litigation, arbitration matters or judicial measures such as seizure and freezing and other circumstances that prevent the transfer of ownership of such exploration right.

As stated in the Valuation Report, as of the Valuation Reference Date, within the scope of the exploration right, the reviewed and filed (measured+indicated+inferred) resources include an amount of gold ore of 147.2787 million tonnes, and an amount of Au metal of 592,186.00 kg, with an average Au grade of 4.02 g/t; the associated (inferred) resources include an amount of silver ore of 144.9937 million tonnes, and an amount of Ag metal of 590,850.00 kg, with an average Ag grade of 4.08 g/t, and an amount of associated pure S of 3,617,079.00 tonnes, with an average S grade of 2.49%. In addition, there are gold ore of 1.1122 million tonnes, and Au metal of 4,393 kg, with an average Au grade of 3.95 g/t, which are still difficult to be utilised.

Please refer to the sub-section headed "II. PROPOSED ACQUISITION OF XILING GOLD MINE EXPLORATION RIGHT – C. INFORMATION ON THE XILIING GOLD MINE EXPLORATION RIGHT – 1. Basic Information on the Exploration Right" in the Letter from the Board for the details of the main resources of the Xiling Gold Mine Exploration Right.

Approval Procedures Required for the Transfer of the Xiling Gold Mine Exploration Right

The transfer of exploration right contemplated under the Acquisition is subject to the approval of and registration procedures with the competent natural resources competent authorities.

In particular, the transfer of exploration right contemplated under the Acquisition is subject to the review by the Natural Resources and Planning Bureau of Laizhou City and the Natural Resources and Planning Bureau of Yantai City and the approval of the transfer of exploration right by the Department of Natural Resources of Shandong Province. To the best of the Company's knowledge, there are no foreseeable difficulties in obtaining approval from the above natural resources competent authority in relation to the transfer of exploration right, and the transfer registration is expected to be completed within about six months after the Acquisition is approved by the Shareholders of the Company.

Production conditions for mine mining

There are currently no production activities involving the Xiling Gold Mine Exploration Right. After the Completion, the Xiling Gold Mine Exploration Right will be integrated with the existing mining right of Sanshandao Gold Mine owned by Shandong Gold Mining (Laizhou) Co., Ltd. (山東黃金礦業(萊州)有限公司), a wholly-owned subsidiary of the Company, into a new mining right, and be jointly developed and utilised. Sanshandao Gold Mine is currently an active mine and will continue to maintain normal production during the resource integration period.

According to the Feasibility Study Report, the infrastructure construction period of the Xiling Gold Mine Exploration Right is seven years and the service life of the Xiling Gold Mine Exploration Right is 36 years. Based on the information currently available to the Company, it is expected that the mining operation can commence in November 2030.

6. Market outlook of the gold industry

As disclosed in the 2023 Interim Report, as affected by repeated changes in expectations of the Federal Reserve's interest rate hikes, the price of gold fluctuated and rose as a whole with large fluctuations, which climbed to a record high. The international spot gold price ranged from the highest of US$2,081/ounce to the lowest of US$1,804/ounce, and closed at US$1,919/ounce, with a maximum volatility of US$277/ounce, up by 5.3% as compared to the closing price at the end of last year. The domestic RMB gold price was significantly stronger than the international gold price due to the depreciation of the RMB against the USD.

During the six months ended 30 June 2023, the AU(T+D) contract price of Shanghai Gold Exchange reached the highest of RMB457.50/g and the lowest of RMB408.08/g, and closed at RMB448.52/g, representing an increase of approximately 9.46% over the closing price of RMB409.76/g last year. The AU(T+D) contract price of Shanghai Gold Exchange has reached the new highest of RMB482.53/g during the second half of 2023, up to the Latest Practicable Date.

As further disclosed in the 2023 Interim Report and discussed with the Management, we are given to understand that with the gradual slowdown of US inflation and the cooling of the labor market, the Federal Reserve's current round of interest rate hikes is drawing to a close. At the same time, against the background of high interest rates and high debt, the possibility of the US economy weakening in the future or even falling into recession is gradually increasing, and the expectation of the Federal Reserve's monetary policy from tightening to loosening is expected to rise again. In addition, global central banks may continue to increase their gold holdings as the global geopolitical situation becomes increasingly complex and severe. Therefore, the Management are of the view that the price of gold is expected to fluctuate upward continuously in the future.

Based on the Valuation Report and our independent research on the market gold price published by the Shanghai Gold Exchange, the average monthly gold price of no. 2 gold of the five years prior to the Valuation Reference Date amounted to RMB376.14/g. Details of which are set out in the table below:

	2018	**2019**	**2020**	**2021**	**2022**	**2023**
Jan		283.99	348.22	387.28	371.42	414.36
Feb		288.51	360.73	376.56	384.73	415.14
Mar		283.76	355.27	362.7	398.71	422.55
Apr		281.21	375.21	370.09	399.25	444.07
May		286.23	388.59	384.48	399.72	451.76
Jun		304.74	391.99	378.64	396.78	450.99
Jul		315.69	408.57	376.64	376.87	452.06
Aug		340.71	426.8	371.51	388.55	455.11
Sep		347.35	411.13	370.57	387.20	470.35
Oct		341.34	402.92	368.73	391.45	456.94
Nov	273.47	338.09	389.11	374.08	401.37	
Dec	278.65	335.25	386.54	368.30	405.27	
Average monthly market gold price of the five years prior to the Valuation Reference Date		**376.14**				

As reference to data published by the Shanghai Gold Exchange, the average monthly gold price of no. 2 gold demonstrated a growing trend in general over the past five years. In addition, the average monthly gold price has increased to RMB471.02/g for November 2023 and RMB476.09/g for December 2023. As at the Latest Practicable Date, the market gold price has further increased to RMB480.7/g.

7. Analysis on the fairness and reasonableness on the consideration

As disclosed in the Letter from the Board and the Valuation Report, the consideration of RMB10,334,248,700 was determined after arm's length negotiations between the parties with reference to the appraised value of the Xiling Gold Mine Exploration Right as at the Valuation Reference Date. Details of the valuation is set out in the Valuation Report in Appendix I to the Circular.

Qualification, experience and independence of the Valuer

For due diligence purpose, we have reviewed the Valuation Report and interviewed the relevant staff members, including Ms. Guo Li, the responsible person of the Valuer and her working team, as to its expertise, independence and details in relation to the Valuation Report, particularly (i) the Valuer's terms of engagement with the Company; (ii) the Valuer's qualification and experience in relation to the preparation of the Valuation Report; (iii) the bases and assumptions adopted in valuing the Xiling Gold Mine Exploration Right; and (iv) the steps and due diligence measures taken by the Valuer in performing the valuation. From our review of the engagement letter between the Company and the Valuer, we are satisfied that the terms of engagement between the Company and the Valuer are appropriate to the valuation conclusion the Valuer is required to be given, with no limitations on the scope of work which might adversely impact on the degree of assurance given by the Valuer. Furthermore, as advised by the Valuer, the Company and Shandong Gold Exploration have not made any formal or informal representations to the Valuer that contravenes with their understanding and assessment on the relevant material information as set out in the Valuation Report.

Based on the engagement letter and other relevant information provided by the Valuer and our independent research, we noted that the Valuer is a qualified professional mining rights valuation agency which provides appraisal services on mineral prospecting rights and mining rights in the PRC or other sea areas under the jurisdiction of the PRC. We noted that the Valuer has received the assets appraisal qualification from the Ministry of Land and Resources of the PRC. We have also obtained information on the track records of the Valuer on other mineral resources valuations and noted that it has experience in the provision of mineral resources valuation services to numerous companies listed on the Stock Exchange and on the stock exchanges in the PRC.

In addition, according to the Valuation Report, the Valuer has confirmed that it is independent from the Company, Shandong Gold Exploration and their respective associates. The Valuer also confirmed that they were not aware of any relationships or interest between itself and the Company, Shandong Gold Exploration or any other parties that could reasonably be regarded as relevant to its independence to act as the independent valuer of the Company. The Valuer also confirmed that apart from normal professional fees paid or payable to them in connection with its appointment as the Valuer, no arrangements exist whereby it has received or will receive any fees or benefits from the Company, Shandong Gold Exploration or any other party to the Acquisition.

We noted from the Valuation Report that the Valuer performed the valuation mainly based on the relevant documents and materials provided by the Company and Shandong Gold Exploration, including historical operating data, mineral resources estimations and the Exploration Report. The parties providing the relevant documents and materials shall be responsible for the authenticity,

legality and completeness of the relevant documents and materials provided, and we are advised by the Valuer that it has assumed such information to be true, complete and accurate and has accepted it without verification.

Methodologies, basis and assumptions adopted for the valuation

We have reviewed the Valuation Report and discussed with the Valuer, and noted that the discounted cash flow method was adopted for the valuation. We are given to understand that according to the "China Mineral Rights Valuation Standards", there are three types of valuation methods for mineral right valuation, namely, the income approach, the cost approach and the market approach. In accordance with the applicable scope and prerequisites of various valuation methods under the "China Mineral Rights Valuation Standards", the valuation methods shall be appropriately selected in light of the characteristics of the valuation target and scope as well as the valuation information collection and other relevant conditions, in order to form a valuation conclusion. Where the valuation information conditions are available and it is appropriate to adopt different valuation methods, two or more valuation methods shall be adopted for the valuation, and valuation conclusions shall be reasonably formed through comparative analysis; where it is not possible to adopt two or more valuation methods for the valuation due to applicability of the methods, operational constraints, etc., the valuation can be carried out by adopting a single method.

Due to the geographic and geological specificities of the Xiling Gold Mine Exploration Right, the exploration work has submitted a large deposit resource, and no cases of the same or similar transactions have been collected, and therefore it is not possible to adopt the market comparative adjustment method based on the transaction cases on the market.

The cost evaluation method of mineral rights includes the exploration cost-utility method and the geological element ranking method. The cost evaluation method is suitable for exploration right with lower stages of geological work. For exploration right that has a high degree of geological exploration and has been submitted and evaluated with development prospects, the cost evaluation method is no longer suitable. The valuation regarding the Xiling Gold Mine Exploration Right is an exploration right valuation in the advanced exploration stage, whose reserves have been filed and relevant designs have been prepared. Therefore, the exploration cost-utility method and the geological element ranking method are not applicable for the valuation.

As advised by the Valuer, according to the "China Mineral Rights Valuation Standards", income valuation method includes the income and equity method and the discounted cash flow method. The production scale of the mine is large, and the mine is classified as large mine in terms of the size of its resource reserves, and its service life is greater than 5 years, therefore, it does not qualify for the income and equity method of valuation. Shandong Gold Exploration prepared the "Exploration Report on the Xiling Gold Mine in the Sanshandao Mine Area of Laizhou City, Shandong Province" (i.e. the Exploration Report) in May 2023; China ENFI Engineering Corporation ("**China ENFI**") prepared the "Feasibility Study on the Exploration of the Xiling Gold Mine in the Sanshandao Mine Area of Laizhou City, Shandong Province" (i e. the Feasibility Study Report); the main technical and economic parameters designed for resource development and utilisation are available for selection and utilisation in the valuation, and the conditions for selection of various valuation parameters are basically in place. The Xiling Gold Mine Exploration Right is of a certain scale, has independent measurable profitability, and its future revenue and

risks borne can be measured in monetary terms. As future revenue can be predicted, the economic and technical parameters designed in the Feasibility Study Report can basically satisfy the requirements for valuation using the discounted cash flow method. According to the "Mineral Rights Valuation Management Measures (Trial)" and the "China Mineral Rights Valuation Standards", the Valuer has adopted the discounted cash flow method for the Valuation.

As advised by the Valuer, the parameters adopted in the Valuation Report are primarily referenced to the Exploration Report and the Feasibility Study Report, which provide the estimated resources reserve of Xiling Gold Mine, estimated expenditures and operating data, and the relevant mining valuation standard for the Valuation. We also understand from the Valuer that the Exploration Report containing the information of the estimated resources reserve has been reviewed and approved by the Company, and has been filed with the competent authorities, while the Feasibility Study Report issued by China ENFI has also been reviewed and approved by internal experts of the Group.

For our due diligence purpose, we have obtained and reviewed the Exploration Report and the Feasibility Study Report. It is noted that the Exploration Report has been reviewed by a team of external experts organised by the Shandong Provincial Department of Natural Resources and duly filed with the Shandong Provincial Department of Natural Resources. We have also obtained the relevant review report issued by such expert team, which concluded that the resources estimation prepared by Shandong Gold Exploration is reliable. We have enquired into the qualification and experience of Shandong Gold Exploration and understand that (i) it is a comprehensive geological exploration unit with Grade A qualification in solid mineral exploration, Grade A qualification in geological drilling, Grade B qualification in pit exploration, Grade C qualification in geophysical survey and Grade C qualification in survey; and (ii) it has a complete exploration chain integrating geological exploration design, construction of various exploration means and compilation of comprehensive result reports, and has been awarded as "National Model Geological Exploration Unit", "Advanced Enterprise in National Gold Industry", etc. As for the Feasibility Study Report, it is noted that the Feasibility Study Report, in particular, the gold production estimation contained therein, has been reviewed and approved by a team of internal experts of the Group who are mainly engineers in geology or mining. We have also enquired into the qualification and experience of China ENFI and understand that it possesses a comprehensive Grade A qualification in engineering design and an engineering consulting unit Grade A credit certificate. According to the public information, China ENFI has participated in 12,000 projects in more than 30 countries and regions over the past 70 years, capable of providing general contracting, project management, project consulting, design, cost consultancy, supervision, environmental assessment, supply and other lifecycle services. We also noted that China ENFI has ample experience in the provision of mineral resources feasibility studies or project consulting services to various companies listed on the Stock Exchange and on the stock exchanges in the PRC. On the above basis and having considered the qualification and experience of Shandong Gold Exploration and China ENFI as mentioned above, we are of the opinion that the Exploration Report and the Feasibility Study Report have been prepared after due and careful consideration by Shandong Gold Exploration and China ENFI, respectively.

Having considered the abovementioned factors, we consider that the adoption of discounted cash flow method for the valuation is fair and reasonable.

To assess the discounted cash flow method adopted, we have reviewed the main valuation parameters used in the Valuation Report as follows:

– *Forecasted sales revenue*

The forecasted sales revenue mainly represented the revenue to be generated from the sales of gold concentrate produced by the Xiling Gold Mine, which is projected based on multiplying the forecasted production output and forecasted sales price.

For the forecasted production output, as discussed with the Valuer and with reference to the Feasibility Study Report, the mine production is expected to commence in late 2030, with an estimated raw ore production of 3,300,000 tonnes per year up to 2062. The estimated total raw ore production volume of the Xiling Gold Mine will be over 112.5 million tonnes based on the production schedule in the Feasibility Study Report and the Exploration Report.

For the forecasted sales price, it is noted that the price of the product used for the valuation is determined based on the "Valuation Methods and Parameters for the Income Channels of Mineral Rights Valuation". Based on the "China Mineral Rights Valuation Standards" and the "Valuation Methods and Parameters for the Income Channels of Mineral Rights Valuation", the Valuer has adopted the price of no.2 gold (gold content ≥99.95% and <99.99%) announced by the Shanghai Gold Exchange in the five years prior to the Valuation Reference Date as the basis for the sales price selected in the valuation. Based on the Valuation Report and our independent research on the market gold price published by the Shanghai Gold Exchange, the average monthly gold price of the previous five years prior to the Valuation Reference Date amounted to RMB376.14/g. With the gold recovery rate of 97.5% in the Feasibility Study Report, which has been applied in the financial projections of forecasted revenue, it is noted that the sales price of gold is determined to be RMB369.45/g in the valuation.

We have further obtained and reviewed the Feasibility Study Report and the Exploration Report, and noted that the abovementioned parameters in the Valuation Report are correctly extracted. We have also reviewed the calculation schedules of the financial projection in the Valuation Report, and noted that the abovementioned parameters are correctly applied. As such, we do not cast doubt on the parameters adopted and the financial projection regarding the forecasted revenue in the Valuation Report.

– *Forecasted cost expenses*

The forecasted cost expenses mainly comprised (i) production costs, which mainly include direct material cost, direct power cost, employee remuneration and depreciation expense; and (ii) other management expenses to be incurred in the operation of the Xiling Gold Mine. We understand that the total costs and expenses adopted in the valuation are estimated using the "cost element method" according to the "China Mineral Rights Valuation Standards" and the "Guiding Opinions on Determination of Mineral Rights Valuation Parameters". As advised by the Valuer, such standards and guidelines are primarily adopted by mineral rights valuers in determining the cost elements in the valuation of mineral rights in the PRC.

It is noted from the Valuation Report that, based on the mining production design in the Feasibility Study Report:

(i) the unit cost of direct materials is set to be RMB71.88/t with reference to the prevailing local market price of materials. Based on the abovementioned estimated raw ore production of 3,300,000 tonnes per year, the estimated total annual direct material costs in a normal year of RMB237.21 million has been adopted in the valuation;

(ii) the unit cost of direct power is set to be RMB56.31/t with reference to the prevailing local market price of electricity. Based on the abovementioned estimated raw ore production of 3,300,000 tonnes per year, an estimated total cost of direct power in a normal year of RMB185.82 million has been adopted in the valuation;

(iii) the unit employee remuneration in the first phase of the mine operation is set to be RMB55.36/t with reference to the prevailing average salary level of workers. Based on the abovementioned estimated raw ore production of 3,300,000 tonnes per year, an estimated total cost of employee remuneration in a normal year of RMB182.7 million has been adopted in the valuation;

(iv) the depreciation expense is estimated according to the fixed asset investment amounts and service life determined during the valuation in accordance with the "Guiding Opinions on Determination of Mineral Rights Valuation Parameters". Particularly, houses and buildings are depreciated based on 40 years and machinery equipment are depreciated based on mine service life of 15 years, both with a residual value ratio of 5%; and tunnel construction are depreciated based on mine service life of 36 years with no residual value. The estimated depreciation expense of raw ore per unit is set to be RMB56.57/t; and the estimated depreciation expense in a normal year is set to be RMB186.6906 million; and

(v) the other management expenses per unit of the upper part of the first phase of the mine operation is set to be RMB136.00/t with reference to the actual management expenses incurred in the nearby Sanshandao Gold Mine which is currently in production, so the unit cost of other management expenses determined in the valuation is set to be RMB136.00/t. The other management expenses in normal production years are estimated to be RMB448.8 million per year.

We noted that the abovementioned costs and expenses are determined with reference to the prevailing market prices or actual expenses and in accordance with the relevant standards and guidelines for mineral rights valuation in the PRC. We have further obtained and reviewed the Feasibility Study Report, and noted that the abovementioned parameters in the Valuation Report are correctly extracted. We have also reviewed the calculation schedules of the financial projection in the Valuation Report, and noted that the abovementioned parameters are correctly applied. On the above basis and having considered (i) the expertise and experience of China ENFI and the Valuer; and (ii) the Feasibility Study

Report and the Valuation Report having been reviewed and approved by the Group, we do not cast doubt on the fairness and reasonableness of the parameters adopted and the financial projection regarding the forecasted cost expenses in the Valuation Report.

– *Forecasted capital expenditures*

The forecasted capital expenditures mainly comprised the investment costs to be incurred for the purchase of fixed assets for the operation of the Xiling Gold Mine, which mainly include geological engineering, tunnel development project, mining equipment, building and machines, pit transportation system, tailings system and other fees such as land cost and mine tunnel maintenance cost.

It is noted from the Valuation Report that, based on the mining production design in the Feasibility Study Report, the original fixed assets used in the valuation are invested in the 7th year of the infrastructure construction period and additional investment amounts of RMB537.1 million and RMB1,064.92 million are required in the mid-stage of mining (after 15 years) and the late-stage of mining (after 27 years), respectively. The initial investment used in the valuation is invested annually during the infrastructure construction period according to the designed proportion in feasibility study, with mid-stage additional investment will be invested in accordance with the proportion of feasibility study design from 2042 to 2044 and late-stage additional investment will be invested in accordance with the proportion of feasibility study design from 2052 to 2056.

We noted that the abovementioned investment in fixed assets are determined according to the mining production design in the Feasibility Study Report and the "China Mineral Rights Valuation Standards". We have further obtained and reviewed the Feasibility Study Report, and noted that the abovementioned parameters in the Valuation Report are correctly extracted. We have also reviewed the calculation schedules of the financial projection in the Valuation Report, and noted that the abovementioned parameters are correctly applied. On the above basis and having considered (i) the expertise and experience of China ENFI and the Valuer; and (ii) the Feasibility Study Report and the Valuation Report having been reviewed and approved by the Group, we do not cast doubt on the fairness and reasonableness of the parameters adopted and the financial projection regarding the forecasted capital expenditures in the Valuation Report.

– *Discount rate*

According to the Valuation Report, it is noted that the discount rate refers to the rate at which the expected return is discounted to its present value, and generally adopts the risk-free return rate plus risk-reward rate approaches.

The risk-free return rate can be determined by selecting the coupon rate of the long-term treasury bonds most recently issued prior to the Valuation Reference Date, the weighted average of the interest rates of the long-term treasury bonds issued in last few years, and the interest rate of 5-year time deposits announced by the People's Bank of China closest to the Valuation Reference Date. As discussed with the Valuer, we are given to understand that the latest interest rate on 5-year government bonds of 2.75% issued on 10 October 2023 was selected as the risk-free return rate for the valuation. Based on our

independent research on the market data published by the Ministry of Finance of the PRC, it is noted that the interest rate on 5-year government bonds is correctly adopted.

We further understand from the Valuer that according to the "China Mineral Rights Valuation Standards", the risk-reward rate is estimated using the "risk-based aggregation method", which quantifies and accumulates the risk-reward requirements of various risks of a mineral exploration and development enterprise. The risk-reward rate is determined by the formula of "risk in the exploration and development stage + industry risk + financial and operational risk + other risks" as stated in the "China Mineral Rights Valuation Standards", where:

- the reward rate in the exploration and development stage lies in exploration, ranging between 0.15% and 1.15%, which is determined to be 1.0% for the valuation;

- the reward rate of industry risk ranges between 1.00% and 2.00%, which is determined to be 2.0% for the valuation;

- the reward rate of financial and operational risk ranges between 1.00% and 1.50%, which is determined to be 1.5% for the valuation; and

- the reward rate of other risks ranges between 0.50% and 2.00%, which is determined to be 1.15% for the valuation.

As enquired with the Valuer, we are given to understand that the aforementioned reward rates are determined based on the Valuer's assessment on the risk level and condition of the Xiling Gold Mine Exploration Right. Accordingly, the total risk-reward rate is estimated to be 5.65%. As such, the discount rate adopted in the valuation is determined to be 8.4% (i.e. being the sum of the total risk-reward rate of 5.65% and the latest interest rate on 5-year government bonds of 2.75%).

We have further reviewed the calculation schedules of the financial projection in the Valuation Report, and noted that the abovementioned discount rate is correctly applied. As such, we do not cast doubt on the discount rate adopted in the Valuation Report.

According to the Valuation Report, it is noted that the following underlying bases and assumptions for the Valuation have been made:

1. the degree of geological survey work as well as the internal and external conditions of the valuation target have no major change but remain current status;

2. the relevant policies, laws and systems followed have no major change but remain current status and the related social, political and economic environment as well as the development technologies and conditions, etc. have no major change but remain current status;

3. it will not take into account the impact on the appraised value of encumbrance rights such as mortgages and guarantees that may be assumed in the future, or any other restrictions on the property rights, and any additional price that may be paid by a special counterparty;

4. the exploration right can be successfully converted into mining right and the mining license can be obtained. Its subsequent development and utilization methods can be smoothly implemented according to the plans set out in the feasibility study, and the obtained mining license can be smoothly extended until the expiration of the evaluated life; and

5. there is no other significant impact caused by Force Majeure and unpredictable factors.

We are given to understand that the above bases and assumptions adopted in the Valuation Report are in compliance with the relevant PRC regulatory requirements and professional standards, and thus are appropriate for the Valuation. In respect of the assumption that the Xiling Gold Mine Exploration Right can be successfully converted into mining right and have the mining license obtained, as enquired with the Management and the Valuer, we understand that Shandong Gold Exploration is required to obtain all valid approvals of the Acquisition from the natural resources competent authorities upon the Completion. Subsequently, the conversion of the exploration right into mining right by responsible government authorities is generally expected to be procedural in nature and will be completed with no practical impediment in the near future. In this regard, we have discussed with the Management and are given to understand that the application for conversion of exploration right into mining right is mainly subject to the relevant requirements as set out in the "Notice on Further Improving the Registration Management of Exploration and Mining of Mineral Resources" (《關於進一步完善礦產資源勘查開採登記管理的通知》) promulgated by the Ministry of Natural Resources of the PRC on 6 May 2023 (the "**Notice**"). We have obtained and reviewed the Notice and further understand that the Group has assessed the relevant requirements set out in the Notice based on the information currently available to the Group and concluded that it has fulfilled the major requirements for converting the Xiling Gold Mine Exploration Right into mining right given that the Group has already complied the necessary reports as required under the Notice, and that the remaining steps are procedural in nature. We are also advised by the Management that the Group has successfully obtained 12 mining licenses during the past three years. Based on the above and the Group's abundant experience in applying for mining licenses in the past, the Company expects that there will be no practical impediment in respect of the conversion of the Xiling Gold Mine Exploration Right into mining right after the completion of the Acquisition.

Based on the abovementioned factors, we are of the view that the key assumptions and the discounted cash flow methodology have been properly applied. As such, we do not cast doubt on the financial projections in the Valuation Report.

Payment method of the consideration of the Acquisition

The consideration shall be paid by the Company in cash within one year after the effective date of the Acquisition Agreement under the specific payment arrangements as mentioned in the section headed "4. The principal terms of the Acquisition Agreement". As disclosed in the 2023 third quarterly report of the Company dated 27 October 2023, the unaudited cash and cash equivalents of the Group amounted to approximately RMB10.1 billion as at 30 September 2023. As advised by the Management regarding the shortfall of the consideration, we are given to understand that the Company currently has sufficient external credit facilities and available

financing channels. The Management are of the view that there is no obstacle to the source of funds for payment of the consideration for the Acquisition. According to the annual reports published by the Company, we further noted that the Company had been able to obtain external financing to fund its previous acquisitions. Based on the foregoing, we are of the view that the payment method of the consideration is on normal commercial terms.

Considering the abovementioned factors, in particular, (i) the basis, assumptions and methodology adopted in the Valuation Report in determining the appraised value of the Xiling Gold Mine Exploration Right are considered appropriate; (ii) the Consideration is made with reference to the valuation conclusion of the Valuation Report, which was considered fairly and reasonably determined; (iii) the Completion is subject to the approval and registration procedures with the natural resources competent authorities; (iv) the specific payment arrangements of the consideration that allows the payments to be settled within one year after the effective date of the Acquisition Agreement is considered favourable to the Company to preserve cash flow in the long run for the Group's future business development; (v) the first instalment payment of the consideration shall be returned by Shandong Gold Exploration in the event that the Acquisition is not approved by the natural resources competent authorities, which effectively safeguard the interests of the Company; (vi) the profit guarantee and compensation provided by Shandong Gold Exploration, which serve as an additional favourable term and safeguard the Group from incurring a loss from the Acquisition; and (vii) the reasons for and benefits of the Acquisition as abovementioned, the Directors are of the view, and we concur, that the consideration is fair and reasonable so far as the Independent Shareholders are concerned and in the interests of the Company and the Shareholders as a whole.

8. Financial effects of the Acquisition

Statement of financial position

Upon the Completion, the cash and cash equivalent of the Group is expected to decrease and the borrowings will increase for the payment of the consideration of the Acquisition. On the other hand, the amount of the Group's intangible assets attributable to exploration right will increase significantly.

Statement of profit and loss

Upon the Completion, the overall revenue of the Group is expected to increase, which is mainly attributable to the revenue to be generated from the acquired Xiling Gold Mine Exploration Right, following the expected commencement of the mine production. Meanwhile, the operating cost the Group is expected to be increased due to the acquired Xiling Gold Mine Exploration Right, and the increase in finance costs in relation to the borrowings to satisfy the payment of the consideration of the Acquisition.

Shareholders are reminded that the above analysis is for illustrative purposes only and does not purport to represent how the financial results or position of the Group would be upon the Completion.

RECOMMENDATION

Having considered the above principal factors and reasons, we are of the opinion that (i) the terms of the Acquisition Agreement and the transactions contemplated thereunder are on normal commercial terms and fair and reasonable so far as the Independent Shareholders are concerned; and (ii) although the Acquisition is not in the ordinary and usual course of business of the Group, it is in the interests of the Company and the Shareholders as a whole. Accordingly, we advise the Independent Board Committee to recommend, and we ourselves recommend, the Independent Shareholders to vote in favour of the resolution to be proposed at the EGM to approve the Acquisition Agreement and the transactions contemplated thereunder.

Yours faithfully,
For and on behalf of
Lego Corporate Finance Limited
Stanley Ng
Managing Director

Mr. Stanley Ng is a licensed person registered with the Securities and Futures Commission and a responsible officer of Lego Corporate Finance Limited to carry out Type 6 (advising on corporate finance) regulated activity under the Securities and Futures Ordinance (Chapter 571 of the laws of Hong Kong). He has over 19 years of experience in the accounting and investment banking industries.

Valuation Report on the Exploration and Prospecting Right of the Gold Mine at Xiling Village in Laizhou City, Shandong Province

Zhongzhicheng Kuang Ping Bao Zi [2023] No. 0001

Beijing Zhongzhicheng International Assets Appraisal Co., Ltd.
(北京中致成國際資產評估有限公司)
4 December 2023

Summary of the Valuation Report on the Exploration and Prospecting Right of the Gold Mine at Xiling Village in Laizhou City, Shandong Province

Zhongzhicheng Kuang Ping Bao Zi [2023] No. 0001

Valuer: Beijing Zhongzhicheng International Assets Appraisal Co., Ltd.

Valuation client: Shandong Gold Mining Co., Ltd.

Valuation target: Exploration and Prospecting Right of Xiling Village Gold Mine in Laizhou City, Shandong Province.

Prospecting right holder: Shandong Gold Geological Mine Exploration Co., Ltd.

Valuation purpose: To provide value reference opinions for the prospecting right to be acquired by the client.

Valuation Reference Date: 31 October 2023.

Valuation date: 20 November 2023 to 4 December 2023.

Valuation method: Discounted cash flow method.

Main valuation parameters:

Within the scope of the exploration right, the reviewed and filed (measured+indicated+inferred) resources include an amount of gold ore of 147,278,666 tonnes, and an amount of Au metal of 592,186.00 kg, with an average Au grade of 4.02 g/t (including 2,022,909.00 tonnes of low-grade gold ore that can be mined on a consolidated basis and 3,942.00 kg of Au metal); the associated (inferred) resources include an amount of ore of 144,993,673 tonnes, and an amount of associated Ag metal of 590,850.00 kg, with an average Ag grade of 4.08 g/t, and an amount of associated pure S of 3,617,079.00 tonnes, with an average S grade of 2.49%. In addition, there are gold ore of 1.1122 million tonnes, and Au metal of 4,393 kg, with an average Au grade of 3.95 g/t, which are still difficult to be utilized.

An amount of gold ore of 10,736,744.00 tonnes and an amount of metal of 18,682.00 kg from the resource reserves that are difficult to be utilized, associated minerals and the increase and decrease estimated through remodeling in the design will not be used in the valuation. The credibility coefficient is 1.0 for measured + indicated resources, and 0.7 for inferred resources. The resource reserves used in the valuation include an amount of gold ore of 121,506,978.00 tonnes and an amount of Au metal of 512,967.40 kg, with an average Au grade of 4.22 g/t.

The loss in the design includes an amount of gold ore of 6,464,132.10 tonnes and an amount of Au metal of 20,068.54 kg. The mining loss includes an amount of gold ore of 11,504,284.59 tonnes and an amount of Au metal of 49,289.89 kg with a mining recovery rate of 90%.

The mineable reserve used in the valuation includes an amount of gold ore of 103,538,558.25 tonnes and an amount of Au metal of 443,978.80 kg, with an average Au grade of 4.29 g/t. Among them: gold ore of 41,768,086.23 tonnes, and Au metal of 193,624.08 kg, with an average Au grade of 4.64 g/t, is in the upper part of phase I; gold ore of 34,854,481.53 tonnes, and Au metal of 145,668.50 kg, with an average Au grade of 4.18 g/t, is in the lower part of phase I; and gold ore of 26,915,990.49 tonnes, and Au metal of 104,686.22 kg, with an average Au grade of 3.89 g/t, is in phase II.

The product solution is finished gold (Au) (trading variety grade Au9995 (secondary gold ingot, containing gold ≥99.95%, <99.99%, i.e., national standard No. 2 gold)).

Ore dilution rate is 8%; production scale is 3.30 million tonnes/year; theoretical service life of the mine (the upper part of phase I + the lower part of phase I + phase II) is 36 years, and the evaluated life is 43 years (including the infrastructure construction period).

Based on the original fixed assets of RMB1,468.8901 million, the additional investment in fixed assets in the upper part of phase I is RMB3,387.23 million, the additional investment in fixed assets in the lower part of phase I is RMB537.1 million, and the additional investment in fixed assets for phase II is RMB1,064.92 million; based on the original intangible assets of RMB23.0707 million, the increase is RMB8.48 million. The gold metal price is RMB369.45/g, and the gold return rate is 97.5%. The discount rate is 8.40%.

Valuation conclusion: After investigation and local market analysis conducted by the evaluator, and in accordance with the principles and procedures for valuation of prospecting rights, the appropriate valuation method and parameters are selected, and after calculation, it is determined that the **appraised value** of "Exploration and Prospecting Right of Xiling Village Gold Mine in Laizhou City, Shandong Province" **is RMB11,028.8013 million, which in words is Renminbi eleven billion twenty-eight million eight hundred and one thousand three hundred only.**

Statement on matters related to the valuation:

(1) According to current national policies, the validity period of the valuation conclusion is one year. If it exceeds one year, the valuation results will be invalid and need to be re-evaluated.

(2) According to the Notice on Issuing the Measures for the Collection of the Income from the Transfer of Mineral Rights (《關於印發〈礦業權出讓收益徵收辦法〉的通知》) (Caizong [2023] No. 10) issued by the Ministry of Finance, the Ministry of Natural Resources and the State Taxation Administration, gold ore processing products shall be subject to annual payment of the transfer income of the mining right at the rate of 2.3% of the sales revenue. Based on this forecast future income, the total amount of mining rights income to be paid in future years is RMB3,531.2194 million. The discounted value is RMB691.2479 million based on the discount rate adopted in this valuation. As there are no unified regulations in the industry regarding specific treatment of the transfer income in the valuation conclusion, the valuation conclusion contains the transfer income of mining rights of liability nature. The users of the report are reminded to pay attention to the impact of this matter on the valuation conclusion.

(3) The valuer and the mineral rights valuator have advised the users of the mineral rights valuation report that the valuation conclusion should be correctly understood, that the valuation conclusion is not equivalent to the realizable price of the valuation target, and that the valuation conclusion should not be regarded as a guarantee of the realizable price of the valuation target.

(4) The beneficiation process is estimated only based on the beneficiation plan and technical indicators designed in the Feasibility Study on the Exploration of the Xiling Gold Mine in the Sanshandao Mine Area of Laizhou City, Shandong Province (China ENFI Engineering Corporation, May 2023). The valuer does not have any technical means to validate the process. The users of the report are reminded of this matter.

(5) With reference to the review opinions, there are an amount of gold ore of 1.1122 million tonnes and an amount of Au metal of 4,393 kg, with an average Au grade of 3.95 g/t, within the scope of the prospecting right which have been filed but yet difficult to be utilized. As it has not been designed for utilization in the Feasibility Study Report used as the basis for this valuation, the impact on the valuation of possible utilization of such part of the resources has not been considered in the valuation conclusion. The users of the report are reminded of this matter.

(6) This valuation report is only used by the client for the valuation purposes specified in this report and for submission to the relevant competent authorities for review. The right to use the valuation report belongs to the client, but the geological data provided by the mineral right holder involves technical secrets, and the users of the report shall keep the data used confidential and shall not provide or disclose it to others. Except where disclosure is required by law, all or part of the report shall not be published in any public media.

[Important reminder]

As the prospecting right has not been disposed of for compensation, and the transfer income (price) has not been paid, the valuation conclusion contains the payable income from transfer of mining rights of liability nature.

The above content is extracted from the "Valuation Report on the Exploration and Prospecting Right of the Gold Mine at Xiling Village in Laizhou City, Shandong Province". For a comprehensive understanding of this valuation project, users shall read the full text of the valuation report carefully.

(No text below)

Legal representative of the valuer:

Project manager:

Mineral right valuator:

Beijing Zhongzhicheng International Assets Appraisal Co., Ltd.
4 December 2023

Contents

Text of the Report

Valuation Report on the Exploration and Prospecting Right of the Gold Mine at Xiling Village in Laizhou City, Shandong Province

Zhongzhicheng Kuang Ping Bao Zi [2023] No. 0001

Beijing Zhongzhicheng International Assets Appraisal Co., Ltd. is entrusted by Shandong Gold Mining Co., Ltd. to conduct an valuation on the "Exploration and Prospecting Right of Xiling Village Gold Mine in Laizhou City, Shandong Province", in accordance with the national regulations on valuation of prospecting rights, in the principles of objectivity, independence and impartiality, and based on generally accepted valuation methods for mineral rights. The evaluator has conducted research, collected information and assessed on the prospecting right entrusted to be evaluated in accordance with necessary valuation procedures, and estimated the value of the prospecting right entrusted to be evaluated as at the Valuation Reference Date of 31 October 2023. We would like to report the valuation status and valuation results as follows:

1 VALUER

Full name: Beijing Zhongzhicheng International Assets Appraisal Co., Ltd.

Address: Room 808, 8th Floor, International Communication Building, No. 19A, Chegongzhuang West Road, Haidian District, Beijing

Legal representative: Li Wencan (李文燦)

Qualification certificate for valuation of prospecting right and mining right No.: Kuang Quan Ping Zi [2002] No. 011

Unified social credit code: 91110102678204103M

2 VALUATION CLIENT AND PROSPECTING RIGHT HOLDER

(1) Valuation client

Name of the valuation client: Shandong Gold Mining Co., Ltd.

Unified social credit code: 91370000723865016M

Type: Joint stock limited company (A Share Stock Code 600547, H Share Stock Code 01787)

Legal representative: Li Hang (李航)

Business period: 31 January 2000 to no fixed period

Residence: No. 2503, Jingshi Road, Licheng District, Jinan City

Business scope: Gold mining and smelting within the scope of the approved license (the validity period is subject to the license); production and sales of special equipment for gold mines and building decoration materials (excluding products restricted by national laws and regulations). (For items that require approval according to law, operations can be carried out only with the approval of relevant departments)

According to public information inquiries, the shareholdings of the top ten shareholders of Shandong Gold Mining Co., Ltd. in the third quarter of 2023 are as follows:

Name of shareholders	Number of shares held *(shares)*	Shareholding ratios
Shandong Gold Group Co., Ltd.	1,694,069,251	37.87%
Hong Kong Securities Clearing Company Limited (H Shares)	858,781,402	19.20%
Shandong Gold Resources Development Co., Ltd. (山東黃金資源開發有限公司)	194,872,049	4.36%
Shandong Gold Non-ferrous Metal Mine Group Co., Ltd. (山東黃金有色礦業集團有限公司)	115,477,482	2.58%
Hong Kong Securities Clearing Company Limited (A shares)	110,462,385	2.47%
China Securities Finance Corporation Limited (中國證券金融股份有限公司)	108,834,732	2.43%
Guo Hongwei (郭宏偉)	42,000,000	0.94%
National Social Security Fund -Portfolio 112 (全國社保基金一一二組合)	38,005,962	0.85%
Shandong Gold Group Qingdao Gold Co., Ltd. (山東黃金集團青島黃金有限公司)	31,467,157	0.70%
National Social Security Fund -Portfolio 414 (全國社保基金四一四組合)	28,897,190	0.65%
China Construction Bank Corporation-Huatai-PineBridge Wealthy Flexible Allocation Hybrid Securities Investment Fund (中國建設銀行股份有限公司－華泰柏瑞富利靈活配置混合型證券投資基金)	25,420,686	0.57%
Total	3,248,288,296	72.62%

Source: RoyalFlush iFinD

(2) Prospecting right holder

Name of the prospecting right holder: Shandong Gold Geological Mine Exploration Co., Ltd.

Unified social credit code: 91370683755406041G

Type: Limited liability company (a sole proprietorship of a legal person that is not invested or controlled by a natural person)

Legal representative: Cheng Bin (程彬)

Business period: 3 January 2003 to no fixed period

Residence: 668 Fuqian West Street, Yongan Road Subdistrict, Laizhou City, Yantai, Shandong Province

Business scope: Permitted items: mineral resource exploration; geological exploration of metallic and non-metallic mineral resources; surveying and mapping services; catering services. (For items that require approval according to law, operations can be carried out only with the approval of relevant departments. Specific business items shall be subject to the approvals or licenses of relevant departments)

As of the Valuation Reference Date, the equity structure of Shandong Gold Geological Mine Exploration Co., Ltd. is as follows:

Name of Shareholder	**Amount of capital contribution** *(RMB0'000)*	**Shareholding ratio**
Shandong Gold Resources Development Co., Ltd.	5,000.00	100.00%
Total	5,000.00	100.00%

The client and the prospecting right holder of this valuation are related parties.

3 VALUATION PURPOSE

Shandong Gold Mining Co., Ltd. intends to acquire the "the Exploration and Prospecting Right of Xiling Village Gold Mine in Laizhou City, Shandong Province" owned by Shandong Gold Geological Mine Exploration Co., Ltd., and need to know about the value of prospecting right. This valuation is to provide reference opinions on the value of "the Exploration and Prospecting Right of Xiling Village Gold Mine in Laizhou City, Shandong Province" for the acquisition of such prospecting right under various conditions described in this valuation report and at the point of time of Valuation Reference Date.

4 VALUATION TARGET AND VALUATION SCOPE

4.1 Valuation target

Valuation target: Exploration and Prospecting Right of Xiling Village Gold Mine in Laizhou City, Shandong Province

Mineral resources exploration license No.: T3700002009084010033093

Prospecting right holder: Shandong Gold Geological Mine Exploration Co., Ltd.

Address of prospecting right holder: 609 Laizhou North Road, Laizhou City

Exploration project name: Xiling Village Gold Mine Exploration in Laizhou City, Shandong Province

Location: Laizhou City, Shandong Province

Drawing No.: J50E016024

Exploration area: 4.59 square kilometers

Validity period: 20 April 2023 to 19 April 2028

4.2 Valuation scope

4.2.1 Scope of mineral resources exploration license

According to the "Engagement Agreement for the Valuation of the Exploration and Prospecting Right of Xiling Village Gold Mine in Laizhou City, Shandong Province", the scope of this valuation is what's set out in the license for Exploration and Prospecting Right of Xiling Village Gold Mine Exploration in Laizhou City, Shandong Province, and the exploration scope is located by 13 inflection point coordinates (see Table 4-1), covering an area of 4.59 km^2.

Table 4-1 Exploration Scope of the Exploration and Prospecting Right of Xiling Village Gold Mine Exploration in Laizhou City, Shandong Province

China Geodetic Coordinate System 2000

No.	East longitude	North latitude
1	119°57'47.788"	37°23'58.099"
2	119°57'47.788"	37°24'15.895"
3	119°57'32.788"	37°24'15.895"
4	119°57'32.789"	37°24'45.985"
5	119°57'07.371"	37°24'45.896"
6	119°57'30.602"	37°24'59.899"
7	119°59'17.276"	37°24'59.896"
8	119°59'16.012"	37°24'47.909"
9	119°59'18.504"	37°24'22.954"
10	119°59'14.958"	37°24'14.894"
11	119°59'04.788"	37°24'14.993"
12	119°59'04.788"	37°24'08.359"
13	119°58'44.475"	37°23'58.112"

4.2.2 Scope of resources estimation

The deadline for resources estimation is 31 May 2023, the estimation target is gold mine resources within the scope of exploration license. The ore bodies involved in the resources estimation are 177 mineable and utilizable ore bodies such as I-1, I-2, II-1, II-2, II-3, and III-1 (including 77 low-grade small ore bodies located in Zones I, II, III of the overlap range of type I ore body resources estimation), while the other 118 ore bodies that cannot be utilized temporarily are listed separately as mineral resources that are difficult to be utilized. The highest elevation of resources estimation is -756 m, and the lowest elevation is -2,737 m; the minimum buried depth is 759 m, the maximum buried depth is 2,742 m, the estimated area is 2.45 km^2 and the plane range is delineated by 34 inflection points (see Table 4-2). Outside the scope of this resources estimation, the spacing of drilling projects of 320 m × 320 m (strike × dip depth) has been basically controlled to the edge of the mining right, and there are locally distributed mineral resources that are difficult to be utilized.

Figure 4-1 Schematic Diagram of the Relationship between Exploration Area and Scope of Resources estimation

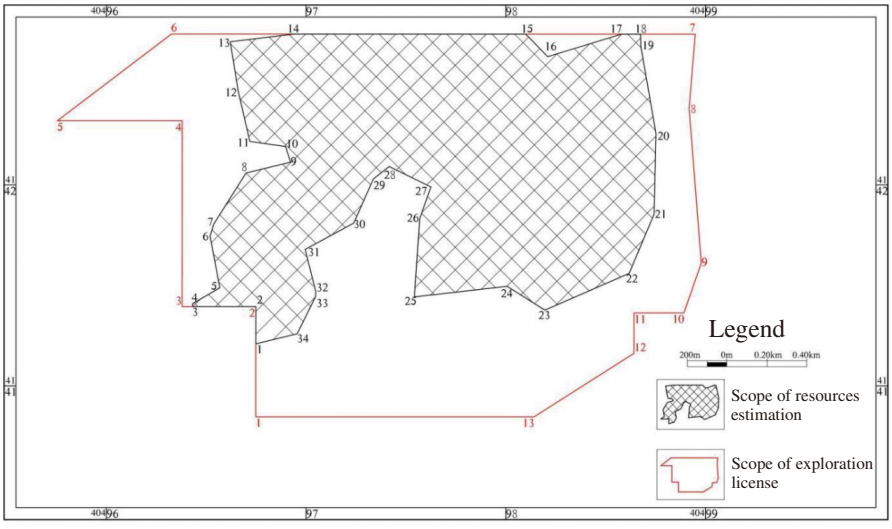

Table 4-2 List of Inflection Point Coordinates within the Scope of Resources estimation (China Geodetic Coordinate System 2000)

Inflection point No.	Cartesian coordinates		Inflection point No.	Cartesian coordinates	
	x (m)	*y (m)*		*x (m)*	*y (m)*
1	4,141,208.553	40,496,748.299	18	4,142,749.845	40,498,675.065
2	4,141,394.200	40,496,748.390	19	4,142,689.060	40,498,676.756
3	4,141,394.328	40,496,432.702	20	4,142,254.637	40,498,752.680
4	4,141,409.050	40,496,432.255	21	4,141,853.942	40,498,742.871
5	4,141,487.587	40,496,568.186	22	4,141,559.264	40,498,617.964
6	4,141,744.657	40,496,519.475	23	4,141,376.409	40,498,196.066
7	4,141,804.831	40,496,537.692	24	4,141,494.989	40,498,007.043
8	4,142,058.894	40,496,699.353	25	4,141,442.274	40,497,542.590
9	4,142,113.010	40,496,922.284	26	4,141,832.126	40,497,569.315
10	4,142,190.582	40,496,897.923	27	4,141,989.469	40,497,625.396
11	4,142,216.203	40,496,718.520	28	4,142,091.305	40,497,416.070
12	4,142,465.248	40,496,660.569	29	4,142,029.406	40,497,337.076
13	4,142,712.229	40,496,620.229	30	4,141,809.796	40,497,238.826
14	4,142,750.715	40,496,941.694	31	4,141,678.770	40,496,995.640
15	4,142,750.419	40,498,100.150	32	4,141,468.382	40,497,048.758
16	4,142,638.138	40,498,210.230	33	4,141,444.779	40,497,048.071
17	4,142,750.245	40,498,580.213	34	4,141,258.977	40,496,955.744

4.2.3 Valuation scope

The plane scope of this valuation is the scope of the mineral resource exploration license (actually the scope of resource reserve estimation), and the elevation range is -756~ -2,737 m.

4.3 History of prospecting right

On 15 December 2000, Shandong Gold Geological Mine Exploration Co., Ltd. (formerly known as Laizhou Geological Mine Exploration Co., Ltd. (萊州市地質礦產勘查有限公司)) obtained its first mineral resources exploration license (Certificate No.: 3700000010435) for "General Prospecting of Gold Mine in Xiling Village Mine Area in Laizhou City, Shandong Province" on a first-application basis. The issuing authority is the Shandong Provincial Department of Land and Resources, the ore type of exploring is gold, the validity period is from 15 December 2000 to 17 May 2001, and the exploration area is 8.53 km^2.

The prospecting right has been effectively extended and changed many times, and the history of mineral right is shown in Table 4-3.

Table 4-3 Table of the History of Xiling Village Prospecting Right

Prospecting right holder	Exploration license No.	Area (km^2)	Validity period	Reasons for changes	Remark
Laizhou Geological Mine Exploration Co., Ltd.	3700000010435	8.53	15 December 2000 to 17 May 2001	First registration	Prospecting
	3700000120100		18 May 2001 to 30 December 2003	Extension	Prospecting
	3700000330694		31 December 2003 to 30 December 2005	Extension	Prospecting
	3700000531298		31 December 2005 to 30 December 2007	Extension	Prospecting
	3700000730919		31 December 2007 to 30 September 2009	Extension	Prospecting
	T37120090802033093		18 August 2009 to 30 June 2011	Extension	Prospecting
Shandong Gold Geological Mine Exploration Co., Ltd.	T37120090802033093	8.39	1 July 2011 to 31 December 2012	Change	Prospecting
			1 January 2013 to 31 December 2014	Extension	General Exploration
		6.17	1 January 2015 to 31 December 2016	Change	General Exploration
			1 January 2017 to 31 December 2018	Extension	Detailed Exploration
	T3700002009084010033093	4.59	20 April 2023 to 19 April 2028	Change	Detailed Exploration

Note: From 31 December 2018 to 20 April 2023, the scope of mining right overlaps with the ecological redline protection (2016 version). After the scope is transferred out of the new ecological redline and the new ecological protection redline is formally implemented, a new phase of exploration license will be obtained.

On 1 July 2011, the name of exploration right holder was changed from "Laizhou Geological Mine Exploration Co., Ltd." to "Shandong Gold Geological Mine Exploration Co., Ltd.", and the exploration area was changed to 8.39 km^2. On 1 January 2013, the exploration phase of the exploration right was upgraded, and the exploration project was named "General Exploration of Gold Mine in Xiling Village, Laizhou City, Shandong Province". On 1 January 2015, the area of the exploration right was curtailed and the exploration area was changed to 6.17 km^2. On 1 January 2017, the exploration phase of the exploration right was upgraded, and the exploration project was named "Detailed Exploration of Gold Mine in Xiling Village, Laizhou City, Shandong Province". After the expiration of the mining right certificate on 31 December 2018, the issuance of mining right certificate was suspended due to the overlap between the partial scope of the mining right and the ecological redline protection zone (2016 version). The overlapped scope has been transferred out of the new ecological redline and after the new

ecological protection redline was formally implemented, the exploration license for the new phase was obtained on 20 April 2023. The area of the exploration right was curtailed and the exploration area was changed to 4.59 km^2. There were no mineable and utilizable ore bodies and no resource partitioning was involved within the cut area, and the license will be valid until 19 April 2028.

4.4 Past valuations of mineral right and disposal of the income (price) from transfer

According to the mineral right holder, the prospecting right has not been disposed of for compensation, and the transfer income (price) has not yet been paid.

5 VALUATION REFERENCE DATE

The client agreed that the Valuation Reference Date of this project is determined as 31 October 2023. All charges adopted in the report are based on price standards as of 31 October 2023.

Selecting 31 October 2023 as the Valuation Reference Date is based on the agreement in the valuation engagement agreement and the fact that this point of time does not exceed the specified time limit from the valuation engagement date, which facilitates the valuation client to provide valuation information and the practicing mineral right appraiser to reasonably select valuation parameters.

6 VALUATION BASIS

The valuation basis of this project includes laws and regulations basis, valuation criteria basis, economic behavior basis, ownership basis, pricing basis and professional reports cited.

6.1 Laws and regulations basis

The laws and regulations in force at the Valuation Reference Date on which this valuation report is based are as follows.

(1) The "Mineral Resources Law of the People's Republic of China" (《中華人民共和國礦產資源法》) (adopted at the 15th meeting of the Standing Committee of the 6th National People's Congress on 19 March 1986, amended for the first time in accordance with the "Decision on Amending the Mineral Resources Law of the People's Republic of China" (《關於修改〈中華人民共和國礦產資源法〉的決定》) at the 21st meeting of the Standing Committee of the 8th National People's Congress on 29 August 1996, and amended for the second time in accordance with the "Decision on Amending Some Laws" (《關於修改部分法律的決定》) at the 10th meeting of the Standing Committee of the 11th National People's Congress on 27 August 2009);

(2) The "Implementation Rules of the Mineral Resources Law of the People's Republic of China" (《中華人民共和國礦產資源法實施細則》) (promulgated by Order No. 152 of the State Council of the People's Republic of China on 26 March 1994);

(3) The "Assets Appraisal Law of the People's Republic of China" (《中華人民共和國資產評估法》) (adopted at the 21st meeting of the Standing Committee of the 12th National People's Congress on 2 July 2016, effective from 1 December 2016);

(4) The "Civil Code of the People's Republic of China" (《中華人民共和國民法典》) (adopted at the 3rd Session of the 13th National People's Congress, effective from 1 January 2021);

(5) The "Administrative Measures on Registration of Mineral Resources Exploitation" (《礦產資源開採登記管理辦法》) (Order No. 241 of the State Council, amended pursuant to the "Decision of the State Council on Amending Certain Administrative Regulations" (《國務院關於修改部分行政法規的決定》) promulgated by Order No. 653 of the State Council on 29 July 2014);

(6) The "Notice on Further Improving the Registration and Management of Mineral Resources Exploration and Mining" (《關於進一步完善礦產資源勘查開採登記管理的通知》) (Zi Ran Zi Gui [2023] No. 4);

(7) The "Administrative Measures for Mineral Resources Registration and Statistics" (《礦產資源登記統計管理辦法》) (adopted at the 12th ministerial affairs meeting of the Ministry of Land and Resources on 30 December 2003, promulgated by Order No. 23 of the Ministry of Land and Resources of the People's Republic of China on 9 January 2004, effective from 1 March 2004, amended pursuant to the Decision of the Ministry of Natural Resources on the Third Batch of Abolition and Revision of Departmental Regulations (《自然資源部關於第三批廢止和修改的部門規章的決定》), effective from 1 May 2020);

(8) The "Interim Regulation on the Management of Mineral Right Assignment and Transfer (《礦業權出讓轉讓管理暫行規定》) (Guo Tu Zi Fa [2000] No. 309);

(9) The "Notice of the Ministry of Land and Resources on Suspending the Implementation of Article 55 of the 'Notice on Issuing the Interim Regulation on the Management of Mineral Right Assignment and Transfer'" (《國土資源部關於停止執行〈關於印發《礦業權出讓轉讓管理暫行規定》的通知〉第五十五條規定的通知》) (Guo Tu Zi Fa [2014] No. 89;

(10) The "Administrative Measures for Mineral Right Valuation (Trial) " (《礦業權評估管理辦法(試行)》) (Guo Tu Zi [2008] No. 174);

(11) The "Notice of the State Administration of Taxation under the Ministry of Finance on Adjusting the Value-Added Tax Rate" (《財政部稅務總局關於調整增值稅稅率的通知》) (Cai Shui [2018] No. 32);

(12) The "Announcement of the Ministry of Finance, the State Taxation Administration and the General Administration of Customs on Deepening the Policies Related to Value-Added Tax Reform" (《財政部稅務總局海關總署關於深化增值稅改革有關政策的公告》) (Announcement of Ministry of Finance, State Taxation Administration and General Administration of Customs 2019 No. 39, effective from 1 April 2019);

(13) The "Administrative Measures for the Withdrawal and Use of Expenses for Production Safety of Enterprises" (《企業安全生產費用提取和使用管理辦法》) (Cai Zi [2022] No. 136);

(14) The "Enterprise Income Tax Law of the People's Republic of China" (《中華人民共和國企業所得税法》) (amended for the second time at the 7th meeting of the Standing Committee of the 13th session of the National People's Congress on 29 December 2018);

(15) The "Regulations on the Implementation of the Enterprise Income Tax Law of the People's Republic of China" (《中華人民共和國企業所得税法實施條例》) (amended on 23 April 2019, promulgated by Order of the State Council No. 714);

(16) The "Law of the People's Republic of China on Urban Maintenance and Construction Tax" (《中華人民共和國城市維護建設税法》) (adopted at the 21st meeting of the Standing Committee of the 13th National People's Congress on 11 August 2020);

(17) The "Decision of the State Council on Amending the Interim Provision on the Collection of Educational Surtax" (《國務院關於修改徵收教育費附加的暫行規定的決定》) (Order of the State Council [2005] No. 448, effective from 1 October 2005);

(18) The "Notice on Unifying the Policies of Local Educational Surtax" (《關於統一地方教育附加政策有關問題的通知》) (Cai Zong [2010] No. 98);

(19) "Resource Tax Law of the People's Republic of China" (《中華人民共和國資源税法》) (adopted at the 12th meeting of the Standing Committee of the 13th National People's Congress on 26 August 2019);

(20) "Decision of the Standing Committee of the Shandong Provincial People's Congress on the Specific Applicable Tax Rates, Calculation Methods and Exemption or Reduction Measures of Shandong Provincial Resource Tax" (《山東省人民代表大會常務委員會關於山東省資源税具體適用税率、計徵方式和免徵或者減徵辦法的決定》) (adopted at the 20th meeting of the Standing Committee of the 13th Shandong Provincial People's Congress on 12 June 2020);

(21) "Notice of the Ministry of Finance, Ministry of Natural Resources and State Administration of Taxation on Issuing the 'Measures for the Collection of Income from the Transfer of Mineral Rights'" (《財政部自然資源部税務總局關於印發〈礦業權出讓收益徵收辦法〉的通知》) (Cai Zong [2023] No. 10);

(22) "China Mineral Rights Valuation Standards" (《中國礦業權評估準則》) (effective from 1 September 2008);

(23) "China Mineral Rights Valuation Standards (II)" (《中國礦業權評估準則(二)》) (Announcement of China Association of Mineral Resources Appraisers 2010 No. 5, effective from 1 January 2011);

(24) "Guiding Opinions on Determination of Mineral Rights Valuation Parameters" (《礦業權評估參數確定指導意見》) (CMVS3080-2008);

(25) "Solid Mineral Resources/Reserves Classification" (《固體礦產資源／儲量分類》) (GB/T17766-2020) issued by the State Administration for Market Regulation and the Standardization Administration of China;

(26) "General Requirements for Solid Mineral Geological Exploration" (《固體礦產地質勘查規範總則》) (GB/T 13908-2020);

(27) "Specifications for Rock Gold Mineral Exploration" (《礦產地質勘查規範岩金》) (DZ/T 0205-2020).

6.2 Behavior, ownership and pricing basis, etc

(1) "Engagement Agreement for the Valuation of the Exploration and Prospecting Right of Xiling Village Gold Mine in Laizhou City, Shandong Province";

(2) Mineral resources exploration license for the Exploration and Prospecting Right of Xiling Village Gold Mine in Laizhou City, Shandong Province (certificate No.: T3700002009084010033093);

(3) "Exploration Report on the Xiling Gold Mine in the Sanshandao Mine Area of Laizhou City, Shandong Province" (Shandong Gold Geological Mine Exploration Co., Ltd., May 2023);

(4) "Reply to the Review and Filing of Mineral Resources Reserves on the 'Exploration Report on the Xiling Gold Mine in the Sanshandao Mine Area of Laizhou City, Shandong Province'" (Lu Zi Ran Zi Chu Bei Zi [2023] No. 11);

(5) "Review Opinions on the 'Exploration Report on the Xiling Gold Mine in the Sanshandao Mine Area of Laizhou City, Shandong Province'" (Lu Kuang Kan Shen Jin Zi [2023] No. 3);

(6) "Feasibility Study on the Exploration of the Xiling Gold Mine in the Sanshandao Mine Area of Laizhou City, Shandong Province" (China ENFI Engineering Corporation, May 2023);

(7) Expert Review Opinions on the Feasibility Study Report on the Xiling Village Gold Mine Exploration in Laizhou City, Shandong Province (《山東省萊州市西嶺村金礦勘探可行性研究報告》專家審查意見) (experts engaged under the arrangement of Industrial Investment Group (產投集團), 22 June 2022);

(8) "Geological Environmental Protection and Land Reclamation Plan of Sanshandao Gold Mine of Shandong Gold Mining (Laizhou) Co., Ltd." (China Metallurgical Geology Bureau Shandong Zhengyuan Geological Exploration Institute, May 2023);

(9) Relevant information collected by the evaluator.

7 OVERVIEW OF MINERAL RESOURCES EXPLORATION

7.1 Location and transportation of the exploration area, physical geography and economic overview

7.1.1 Location and transportation of the exploration area

The exploration area, whose administrative division belongs to Sanshandao Subdistrict, Laizhou City, is located 25 km north of Laizhou City, covering an area of 4.59 km^2. The basic block number is J50E016024061400. The extreme geographical coordinates (China Geodetic Coordinate System 2000): 119°57'07.371"~119°59'18.504" east longitude, and 37°23'58.099"~37°24'59.899" north latitude.

The exploration area, in which the provincial highway Wensan Road S304 passes through, is 16 km away from Yanwei Highway (G206) in the east and approximately 5 km away from the Laizhou Port entrance and exit of Rongwu Highway (G18) in the south; the Da (jiawa)-Lai (zhou)-Long (kou) railway passes through Zhuqiao Station, which is located 7.5 km east of the exploration area, and is currently undergoing capacity expansion and reconstruction; it is adjacent to Laizhou Port in the west, from which it can reach Longkou, Yantai, Tianjin and Dalian directly via waterway; it is approximately 120 km away from Yantai Penglai International Airport. In addition, the Weiyan high-speed railway station under construction, located in Caonian Village, southern Laizhou City is 34 km north of the exploration area, and is expected to be completed in 2024. Its water, land and air transportation are very convenient (see Figure 7-1).

7.1.2 Physical geography and economic overview

The exploration area, located in the northwest of Jiaodong Peninsula, is dominated by coastal plain sedimentary landforms with part of the northern area covered by sea water. The lowest altitude in the area is -3 m and the highest is +7 m, with a relative height difference of 10 m. There are three hills near the coast on the west side of the periphery of the area, with the highest altitude of +66.88 m.

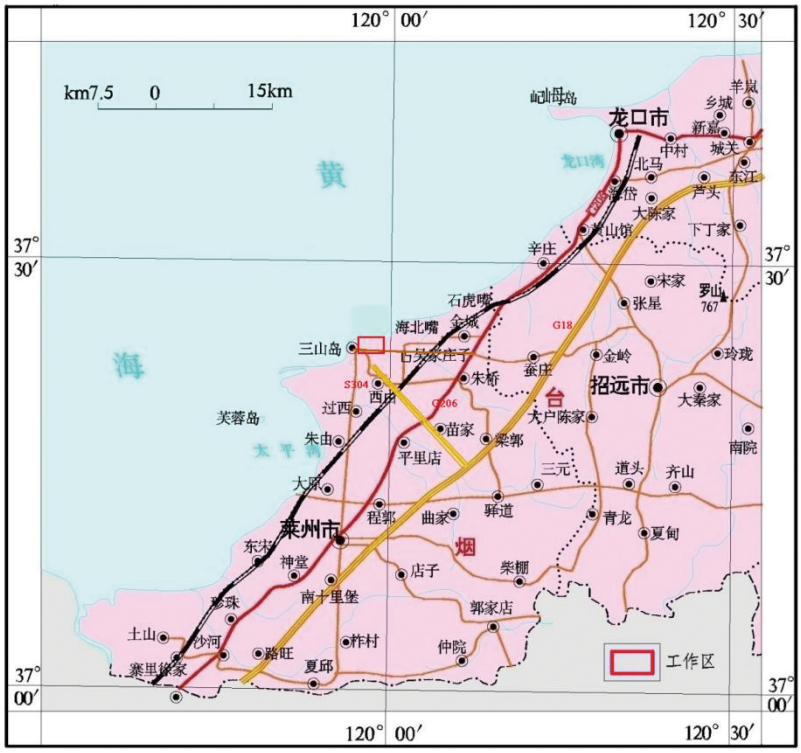

Figure 7-1 Traffic location map

The exploration area is adjacent to Laizhou Bay in the north and has a continental climate of north warm temperate monsoon zone. It has a mild climate and four distinct seasons, with southeasterly winds in spring and summer and northwesterly winds in autumn and winter. According to the meteorological data of the Laizhou Weather Station (莱州市氣象站) for a total of 61 years from 1961 to 2021, the average annual temperature was 13.5˚C, the extreme maximum temperature was 40.1˚C (in August 2013), and the extreme minimum temperature was -17.0˚C (in January 2006); the average annual precipitation was 623.29 mm, the maximum annual precipitation was 1,204.80 mm (in 1964), the minimum annual precipitation was 313.80 mm (in 1977), the maximum daily precipitation was 117.20 mm, and the annual average relative humidity was 63.87%; the maximum snow depth was 200 mm, the maximum frozen soil depth was 680 mm, the frost period was from November each year to March of the following year, and the longest freezing period was 102 days; the tidal properties in this sea area were irregular semidiurnal tides, and the average tidal range was very small, only varying between 0.8~1.0 m. The elevation of the 100-year tsunami is 3.95 m. The southeasterly wind is the prevailing wind, followed by northeasterly wind. The maximum wind speed generally occurs in April, with the average wind speed in April in the past years being 4.5 m/s. The typhoon season is generally from July to October, with the maximum wind speed of 34 m/s in the past years.

There are no rivers developed in the area, and the surface water is mainly Bohai Sea water. The sea level of Bohai Sea is the lowest erosion base level in the area. The type of groundwater is mainly quaternary loose rock pore water. According to the simple pumping data of J5, J21, J22, and J24 civilian wells, the water inflow of a single well is 455.59~810.00 m^3/d, and the permeability coefficient is 1.91~117.46 m/d, with significant differences in water yield; it mainly receives seawater replenishment, with little change in water quality. The mineralization degree ranges between 28.53~33.98 g/L, and the hydrochemical type is Cl-Na water.

The exploration area is located on the east side of the Yishu Fault Zone, with an earthquake intensity of VII and a peak seismic acceleration of 0.15 g.

Under natural conditions, the exploration area has a flat terrain and will not experience geological disasters such as landslides, mudslides, and collapses.

The main hydrogeological problem in the area is seawater intrusion. Due to the relatively developed agricultural production in this area, the intensity of shallow groundwater extraction is relatively high. The extraction causes a large-scale decrease in the groundwater level, forming a regional depression funnel, making the groundwater level generally lower than the sea level, and causing large-scale seawater intrusion. The salinity of groundwater increased significantly, and both are salt water and brine. In recent years, local governments have effectively alleviated seawater intrusion by building underground reservoirs.

Laizhou City is a county-level city under provincial jurisdiction administered by Yantai City, with an area of 1,931 km^2. The Sanshandao Subdistrict where the exploration area is located covers an area of 98 km^2. At the end of 2021, the population registered by the public security department in Laizhou City was 827,000, with a total of 454,463 employees in the society. At the end of 2021, the regional GDP reached RMB70.131 billion, with a total output value of RMB10.027 billion for agriculture, forestry, animal husbandry, and fishery and a total output value of RMB26.886 billion for industrial sector, and the regional GDP structure of the three industries was 13.3:43.8:42.9. Agricultural production is mainly planting, with main crops including wheat, corn, peanuts, vegetables, fruits, etc. The offshore fishing and seafood aquaculture industries are developed.

The comprehensive production capacity of Laizhou Water Plant (萊州市自來水廠) is 120,000 tonnes/day, with a total tap water supply of 23.18 million tonnes, and the sewage treatment capacity of Binhai Sewage Treatment Plant (濱海污水處理廠) is 10,000 cubic meters/day. The annual power generation capacity of Laizhou City is 18.659 billion kWh. Among them, the thermal power supercritical units of Huadian Power International (華電國際) in Laizhou, which is located 5 km northeast of the exploration area, has an installed capacity of 4.10 million kilowatts and an annual power generation of 16.877 billion kWh, with sufficient power supply.

There is a complete gold mining industry around the exploration area, with two important production mining areas, being Xinli and Sanshandao. The Xinli beneficiation workshop in the nearby Sanshandao Gold Mine was put into operation in March 2013, with a designed beneficiation capacity of 8,000 tonnes/day. It can currently reach a production capacity of more than 10,000 tonnes/day and is the largest gold beneficiation production workshop in China. There are 110kV No.1 and No.2 stations in the east that are dedicated to powering mine production and daily life, which can meet the normal production of the mine,

and the municipal water company provides a stable water source. All pit drainage is used as the production water source, and the water quality in the pit is seawater. Domestic water is supplied by the water supply network where the factory is located. The exploration area has a stable supply of raw materials and fuel, which is suitable for the development of mining enterprises.

The gold, machinery manufacturing, stone, chemical industry, and electric energy are key industries in Laizhou City. Among them, the total output value of the gold industry was RMB27.822 billion, and the operating income was RMB27.498 billion. There are currently 26 mining companies and 38 prospecting rights, with an ore output of 3.9094 million tonnes and a total industrial output value of RMB3.510 billion in 2021.

In view of the above, the exploration area has convenient transportation, abundant labor force, complete water, electricity, heating, gas, communication and sewage treatment facilities, sufficient building materials and fuel, and good external construction conditions, which is conducive to mine development.

7.2 Overview of geological work in the mining area

The basic geological work involving the system in this area began in the early 1960s, of which, the Weifang Regional Geological Survey Report (《濰坊幅區域地質測量報告》) in 1:200,000 conducted by the Beijing Institute of Geology (北京地質學院) was revised by the team 805 of the Shandong Bureau of Geology (山東省地質局) during 1967 to 1968; the second round of 1:200,000 regional geological survey began in the late 1980s and was completed by the regional survey team of the Shandong Bureau of Geology; in 1996, a new round of geological survey report for Laiyang Area, Weifang Area, and Xiyou Area (《萊陽幅、濰坊幅、西由幅》) in 1: 200,000 was completed by the Shandong Provincial Regional Geological Survey Research Institute (山東省區域地質調查研究院).

In 1984, two rounds of 1:50,000 regional geological survey were completed by the sixth geological team of the Shandong Bureau of Geology and the Fourth Geological and Mineral Exploration Institute of Shandong (山東省第四地質礦產勘查院), respectively, which provided basic data for subsequent mineral exploration work.

The 1:200,000 regional aeromagnetic, heavy sand, and geochemical surveys have been completed in the area, and the 1:50,000 heavy sand surveys, 1:50,000 geochemical surveys, comprehensive geophysical exploration, and remote sensing interpretation also have been successively completed.

During 1979 to 1981, the geophysical prospecting detachment of the sixth geological team of Shandong Bureau of Geology and Mineral Resources (山東省地質礦產局) carried out 1:10,000 magnetic survey in an area of 80km^2 starting from Sanshandao in the north to Zhuyou in the south and from Xiajia in the east to Wali Village in the west, and submitted the Cangshang-Zhuyou Magnetic Survey Report of Ye County, Shandong Province (《山東省掖縣倉上－朱由磁法測量報告》) in May 1981. The report made a comprehensive demonstration and inference on the southern extension of the Sanshandao fault zone, providing a basis for further mineral exploration.

7.2.1 Mineral exploration in neighboring areas

(1) Geological exploration of Sanshandao Gold Mine

During 1966 to 1969, the former team 807 of Shandong Bureau of Geology systematically carried out geological exploration in the Sanshandao Mine Area.

In 1976, the Geological Exploration Report on the Sanshandao Gold Mine Area in Ye County, Shandong (《山東掖縣三山島金礦區地質勘探報告》) was approved by the Metallurgical Department of Shandong Province (山東省冶金廳) with the document "(76) Lu Ye Kuang Zi No. 32" and the Shandong Bureau of Geology with the document "(76) Lu Di Shen Zi No. 3". In terms of the approved gold resources reserve, the amount of (the on-balance sheet C1+C2 + the off-balance sheet C1) ore is 11,083,121 t, the amount of gold metal is 63,564 kg, and the associated silver reserve is 111,682 kg. Among them, the amount of on-balance sheet C1+C2 grade ore is 9,745,396 t, and the amount of gold metal is 60,196 kg. In terms of resources reserve within the boundaries of the mining rights, the amount of (the on-balance sheet C1+C2 + the off-balance sheet C1) ore is 9,614,938 t and the amount of gold metal is 55,494 kg. The geological structure of the deposit, the geological characteristics of the ore body, the hydrogeology and engineering geological conditions of the mining area have been basically identified, and the Sanshandao Gold Mine was built accordingly.

(2) The prospecting right of the "Gold Mine at the Deep Level of Sanshandao Gold Mine Area in Laizhou City, Shandong Province (General Exploration) (山東省萊州市三山島礦區深部金礦詳查)"

During August 2002 to June 2006, the Sanshandao Gold Mine of Shandong Gold Group Co., Ltd. entrusted Shandong Zhengyuan Exploration Company Limited (山東正元地質資源勘查有限責任公司) to carry out geological prospecting within the scope of peripheral exploration permission of Sanshandao Gold Mine.

It used mechanical core drilling to drill 11,802.60 m/14 holes, collected and utilized 3,788.64 m/8 holes drilled by the former sixth team, and 1,520.10 m/19 holes drilled for production exploration in the mine pit, and submitted the Report on the Gold Mine at the Deep Level of Sanshandao Gold Mine Area in Laizhou City, Shandong Province (General Exploration) (《山東省萊州市三山島礦區深部金礦詳查報告》) in December 2007.

In January 2008, the Reserve Review Office of the Shandong Provincial Land and Resources Archives (山東省國土資源資料檔案館儲量評審辦公室) approved the general exploration report with the document "Lu Kuang Kan Shen Jin Zi [2008] No. 01" ("魯礦勘審字 [2008] 01號"), and the Shandong Provincial Department of Land and Resources (山東省國土資源廳) issued the mineral resources reserve review and filing certificate with the document "Lu Zi Jin Bei Zi [2008] No. 04" ("魯礦勘審字 [2008] 04號"). Included in the discovered gold resources, the amount of (332+333) ore is 4,283,877 t, and the amount of gold metal is 12,762 kg, with an average grade of 2.98×10^{-6}. Among them, the amount of (332) ore is 1,643,537 t, and the amount of

gold metal is 4,801 kg, with an average grade of 2.92×10^{-6}; the amount of ore (333) is 2,640,340 t, and the amount of gold metal is 7,961 kg, with an average grade of 3.02×10^{-6}.

The report has used the geological data of two boreholes (ZK142/773.10 m, ZK48-2/1,060.00 m) drilled during general exploration of the gold mine at the deep level of Sanshandao Gold Mine area.

(3) The prospecting right of the "Gold Mine in the Northern Sea Area of Sanshandao in Laizhou City, Shandong Province (General Exploration) (山東省萊州市三山島北部海域金礦詳查)"

During February 2012 to March 2014, the mineral rights holder Laizhou Ruihai Mining Co., Ltd. (萊州市瑞海礦業有限公司) entrusted the Shandong Provincial Third Geological and Mineral Exploration Institute (山東省第三地質礦產勘查院) to conduct a general exploration for the prospecting right. During this general exploration, a drilling volume of 123,727.03 m/115 holes was completed and a variety of 40,123 samples were tested.

In September 2014, the Report on the Gold Mine in the Northern Sea Area of Sanshandao in Laizhou City, Shandong Province (General Exploration) (《山東省萊州市三山島北部海域礦區金礦詳查報告》) was submitted. In December 2014, the Beijing China Mining Federation Consulting and Review Center (北京中礦聯諮詢評審中心) approved the general exploration report with the document "Zhong Kuang Lian Chu Ping Zi [2014] No. 55", and the Ministry of Land and Resources issued the mineral resources reserve review and filing certificate in Guo Tu Zi Chu Bei Zi [2015] No. 9. Included in the discovered gold resources, the amount of (332+333) ore is 109,430,927 t, and the amount of gold metal is 470,470 kg, with an average grade of 4.30×10^{-6}. Among them, the amount of (332) ore is 43,398,252 t, and the amount of gold metal is 220,896 kg, with an average grade of 5.09×10^{-6}; the amount of (333) ore is 66,032,675 t, and the amount of gold metal is 249,574 kg, with an average grade of 3.78×10^{-6}.

(4) The mining right of "Sanshandao Gold Mine in Laizhou City, Shandong Province (山東省萊州市三山島金礦)"

In 2017, the Ministry of Land and Resources delineated the scope of the current Sanshandao mining rights (including the original Sanshandao mining right, the original Xinli mining rights, the prospecting right of "Peripheral Area in the Sanshandao Gold Mine Area, Laizhou City, Shandong Province (山東省萊州市三山島金礦區外圍)", the prospecting right of "55-91 Lines Mineral Section of Xinli Mining Area in Laizhou City, Shandong Province (山東省萊州市新立採區 55-91綫礦段)", the prospecting right of "Xinli Village, Laizhou City, Shandong Province"), and Shandong Zhengyuan Exploration Company Limited submitted the Report on the Verification of Gold Mine Resources Reserves in the Sanshandao Mine Area of Laizhou City, Shandong Province (《山東省萊州市三山島礦區金礦資源儲量核實報告》) accordingly (verification base date: 31 December 2017). The report was reviewed and approved by the Mineral Resources Reserve Review Center of the

Ministry of Land and Resources (國土資源部礦產資源儲量評審中心) with the document "Guo Tu Zi Kuang Ping Chu Zi [2018] No. 45", and was filed by the Ministry of Natural Resources with the document "Zi Ran Chu Bei Zi [2018] No. 12". In terms of retained resources reserve in the mining area, the amount of ore is 60,351.08 kt, and the amount of gold metal is 189,361 kg, with an average grade of 3.14 g/t; in terms of the cumulatively used resources reserve, the amount of ore is 38,920,750 t, and the amount of gold metal is 98,727 kg, with an average grade of 2.54 g/t; in terms of cumulative identified resources reserve, the amount of ore is 99,271,830 t, and the amount of gold metal is 288,088 kg, with an average grade of 2.90 g/t.

(5) The Verification of Gold Mine Resources Reserve in the Sanshandao Mine Area (Integrated) of Laizhou City, Shandong Province

In order to identify the resources reserve in the integrated area and change the scope of mining rights, Shandong Gold Mining Co., Ltd. entrusted the China Metallurgical Geology Bureau Shandong Zhengyuan Geological Exploration Institute to carry out resources reserve verification within the integrated scope of the Sanshandao Mine Area. The Report on the Verification of Gold Mine Resources Reserve in the Sanshandao Mine Area (Integrated) of Laizhou City, Shandong Province (《山東省萊州市三山島礦區(整合)金礦資源儲量核實報告》) (verification base date: 31 December 2021) was prepared on the basis of the 2017 Sanshandao Mine Area Verification Report (2017年三山島礦區核實報告), Xiling Gold Mine General Exploration Report (西嶺金礦詳查報告) and the annual report, and has been reviewed by Shandong Provincial Natural Resources Archives (山東省自然資源檔案館) with review opinions offered in the document "Lu Zi Ran Zi Dang Chu Han [2022] No. 1" on 5 January 2022, but has not yet been filed. It has been verified that as of 31 December 2021, the retained resource reserves within the integrated scope are as follows:

① In terms of retained reserves, the amount of gold ore is 20,228,544 t and the amount of gold metal is 56,532 kg. Among them, in terms of measured reserves, the amount of gold ore is 14,268,818 t and the amount of gold metal is 40,833 kg; in terms of probable reserves, the amount of gold ore is 5,959,726 t and the amount of gold metal is 15,699 kg.

② In terms of retained resources, the amount of gold ore is 153,354,056 t, and the amount of gold metal is 597,251 kg, with an average grade of 3.89 g/t. Among them, in terms of measured resources, the amount of gold ore is 17,147,230 t, and the amount of gold metal is 49,912 kg, with an average grade of 2.91 g/t; in terms of the indicated resources, the amount of gold ore is 31,865,294 t, and the amount of gold metal is 131,320 kg, with an average grade of 4.12 g/t; in terms of inferred resources, the amount of gold ore is 104,341,532 t, and the amount of gold metal is 416,019 kg, with an average grade of 3.99 g/t.

7.2.2 Previous general prospecting in this exploration area

(1) General prospecting

During December 2000 to May 2010, Shandong Gold Geological Mine Exploration Co., Ltd. conducted a general survey. It laid construction drilling holes between 42~96 exploration lines, completed the engineering amount of a total of 54,028.41 m/35 holes, and obtained 23 qualitative and semi-quantitative full analysis samples, 6 full chemical analysis samples, 8,084 basic chemical analysis samples, 135 combination analysis samples, 762 internal inspection samples for basic analysis, 418 external inspection samples for basic analysis, 14 internal inspection samples for combination analysis, 9 external inspection samples for combination analysis, 136 small volume, mass and humidity test samples, and 21 rock ore identification samples. The drilling construction unit was the Shandong Provincial Third Geological and Mineral Exploration Institute. One borehole (ZK96-1) was a basic qualified hole and 34 boreholes were qualified holes, meeting the requirements of the six drilling standards; all types of samples were strictly sampled, processed, and tested in accordance with relevant specifications, and had undergone internal and external inspection, analysis and testing, and their quality met the requirements of the specifications. Among them, 50,110.18 m/33 holes (23 qualitative and semi-quantitative full analysis samples, 6 full chemical analysis samples, 7,982 basic chemical analysis samples, 135 combination analysis samples, 752 internal inspection samples for basic analysis, 413 external inspection samples for basic analysis, 14 internal inspection samples for combination analysis, 9 external inspection samples for combination analysis, 136 small volume, mass and humidity test samples, and 21 rock ore identification samples) are within the scope of the existing exploration license, and 3,918.23 m/2 holes (ZK42-5, ZK48-6) are within the scope of the latest contracted area, with no general prospecting report submitted. Its relevant quality review has been completed in the Report on Xiling Gold Mine of Sanshandao Mine Area in Laizhou City, Shandong Province (General Exploration) (《山東省萊州市三山島礦區西嶺金礦詳查報告》) in 2017.

(2) Exploration of succeeded resources

The "Exploration of Succeeded Resources of Sanshandao Gold Mine in Laizhou City, Shandong Province (山東省萊州市三山島金礦接替資源勘查)" is a 2006 national exhausting mine succeeded resources exploration project approved by the National Exhausting Mine Succeeded Resources Prospecting Project Management Office (全國危機礦山接替資源找礦項目管理辦公室) with project code 200637083 and a work cycle of 2 years. Its project undertaking unit is Shandong Gold Group Co., Ltd., and exploration unit is China Metallurgical Geology Bureau Shandong Zhengyuan Geological Exploration Institute. A total of 15,693.40 m/12 holes were drilled in this project, of which 5 were drilled in this exploration area (ZK48-4, ZK56-1, ZK56-2, ZK56-3, ZK56-4), with a cumulative workload of 7,436.60 m, and obtained 545 basic chemical analysis samples.

The "General Prospecting Report on Deep and Peripheral Gold Mines of the Sanshandao Mine Area in Laizhou City, Shandong Province (《山東省萊州市三山島礦區深部及外圍金礦普查報告》)" was submitted in September 2009. It was reviewed and approved by the Reserve Review Office of the Shandong Provincial Land and Resources Archives with the document "Lu Kuang Kan Shen Jin Zi [2010] No. 06" on 12 January 2010, and was filed by the Shandong Provincial Department of Land and Resources with the document "Lu Guo Tu Zi Zi [2010] No. 650" on 23 June 2010.

The resources approved for the succeeded resource exploration projects are as follows:

(333) gold resources (including low grade): the amount of ore is 21,759,981 t, and the amount of gold metal is 60,436 kg, with an average grade of 2.78×10^{-6}. (333) gold resources allocated to this exploration area as per resource partitioning: the amount of ore is 958,631 t, and the amount of gold metal is 3,222 kg, with an average grade of 2.78×10^{-6}. Among them, the amount of industrial ore is 892,971 t, and the amount of metal is 3,088 kg, with an average grade of 3.46×10^{-6}; the amount of low-grade ore is 65,660 t, and the amount of gold metal is 134 kg, with an average grade of 2.04×10^{-6};

(333) associated silver resources: the amount of ore is 21,257,103 t, and the amount of silver metal is 122,126 kg, with an average grade of 5.74×10^{-6}. (333) silver resources allocated to this exploration area as per resource partitioning: the amount of ore is 958,631 t, and the amount of silver metal is 5,815 kg, with an average grade of 5.74×10^{-6};

(333) sulfur resources: the amount of ore is 20,838,124 t, the amount of pure sulfur is 666,274 t, and the equivalent standard sulfur ore is 1,903,637 t, with an average grade of 3.20%. (333) sulfur resources allocated to this exploration area as per resource partitioning: the amount of ore is 932,465 t, the amount of sulfur is 25,995 t, and equivalent standard sulfur ore is 74,271 t, with an average grade of 3.20%.

The geological data of 6 boreholes drilled in the succeeded resource project had been used in the report, of which 7,436.60 m/5 boreholes are within the scope of this exploration area, and 1 borehole is within the scope of the Xinli Village mining area (ZK48-3/1,370.50 m).

In 2017, the Report on Xiling Gold Mine of Sanshandao Mine Area in Laizhou City, Shandong Province (General Exploration) (《山東省萊州市三山島礦區西嶺金礦詳查報告》) (hereinafter referred to as the "Latest General Exploration Report") was submitted by Shandong Gold Geological Mine Exploration Co., Ltd., and was reviewed and approved by the former Reserve Review Office of the Shandong Provincial Land and Resources Archives with the document "Lu Kuang Kan Shen Jin Zi [2017] No. 6", and filed by the Shandong Provincial Department of Land and Resources with the document "Lu Guo Tu Zi Chu Bei Zi [2017] No. 45". The resources filed are as follows:

The amount of gold ore is 81,527,363 t, and the amount of gold metal is 377,259 kg, with an average grade of 4.63 g/t. Among them:

The amount of (332) ore is 22,281,786 t, and the amount of gold metal is 109,521 kg, with an average grade of 4.92 g/t;

The amount of (333) ore is 59,245,577 t, and the amount of gold metal is 267,738 kg, with an average grade of 4.52 g/t.

In terms of associated silver, the amount of (333) ore is 81,386,024 t, and the amount of silver metal is 433,167 kg, with an average silver grade of 5.32 g/t.

In terms of associated sulfur, the amount of (333) ore is 67,973,724 t, the amount of pure sulfur is 1,784,104 t, with an average sulfur grade of 2.62%, and the amount of equivalent standard sulfur ore is 5,097,440 t.

In addition, in terms of low-grade ores, the amount of gold ore is 3,205,702 t, and the amount of gold metal is 5,321 kg, with an average grade of 1.66 g/t.

During October to December 2021, SDG Design and Consultancy Co., Ltd. carried out an industrial indicators demonstration on the deposits in Sanshandao Gold Mine Area (Integrated) and prepared the Industrial Indicators Demonstration Report on the Deposits of Sanshandao Gold Mine Area (Integrated) in Laizhou City, Shandong Province (《山東省萊州市三山島金礦區(整合)礦床工業指標論證報告》)". The China Metallurgical Geology Bureau Shandong Zhengyuan Geological Exploration Institute conducted a reserve verification in the area based on the demonstration report, which verified that the cumulative amount of detected gold ore was 103,133,248 t, and the amount of gold metal was 445,709 kg.

During 2015 to 2022, Shandong Gold Geological Mine Exploration Co., Ltd. conducted exploration in the area and submitted the Exploration Report on the Xiling Gold Mine in the Sanshandao Mine Area of Laizhou City, Shandong Province (《山東省萊州市三山島礦區西嶺金礦勘探報告》)" in May 2023. The report was reviewed and approved by the Reserve Review Office of the Shandong Provincial Natural Resources Archives (山東省自然資源檔案館儲量評審辦公室) on 27 June 2023 with the "Review Opinions on the Exploration Report on the Xiling Gold Mine in the Sanshandao Mine Area of Laizhou City, Shandong Province" (Lu Kuang Kan Shen Jin Zi [2023] No. 3) and was filed by the Shandong Provincial Department of Natural

Resources (山東省自然資源廳) on 2 August 2023 with the "Reply to the Review and Filing of Mineral Resources Reserves on the Exploration Report on the Xiling Gold Mine in the Sanshandao Mine Area of Laizhou City, Shandong Province ("關於《山東省萊州市三山島礦區西嶺金礦勘探報告》礦產資源儲量評審備案的覆函")" (Lu Zi Ran Zi Chu Bei Zi [2023] No. 11). Exploration conclusion: the cumulative amount of detected gold ore is 147,278,666 t, and the amount of gold metal is 592,186 kg, with an average grade of 4.02 g/t (in terms of the low-grade ore that can be mined on a consolidated basis, the amount of gold ore is 3,022,379 t, and the amount of gold metal is 6,107 kg, with an average grade of 2.02 g/t). Where:

Included in the measured resources, the amount of gold ore is 23,509,618 t, accounting for 15.96% of the total amount of gold ore of the deposit, and the amount of gold metal is 100,666 kg, accounting for 17.00% of the total amount of gold metal of the deposit, with an average grade of 4.28 g/t (in terms of the low-grade ore that can be mined on a consolidated basis, the amount of gold ore is 52,917 t, and the amount of gold metal is 86 kg, with an average grade of 1.63 g/t);

Included in the indicated resources, the amount of gold ore is 61,836,379 t, accounting for 41.99% of the total amount of gold ore of the deposit, and the amount of gold metal is 256,111 kg, accounting for 43.25% of the total amount of gold metal of the deposit, with an average grade of 4.14 g/t (in terms of the low-grade ore that can be mined on a consolidated basis, the amount of gold ore is 946,553 t, and the amount of gold metal is 2,079 kg, with an average grade of 2.20 g/t);

Included in the inferred resources, the amount of gold ore is 61,932,669 t, accounting for 42.05% of the total amount of gold ore of the deposit, and the amount of gold metal is 235,409 kg, accounting for 39.75% of the total amount of gold metal of the deposit, with an average grade of 3.80 g/t (in terms of the low-grade ore that can be mined on a consolidated basis, the amount of gold ore is 2,022,909 t, and the amount of gold metal is 3,942 kg, with an average grade of 1.95 g/t).

Included in the measured + indicated resources, the amount of gold ore is 85,345,997 t, accounting for 57.95% of the total amount of gold ore of the deposit, and the amount of gold metal is 356,777 kg, accounting for 60.25% of the total amount of gold metal of the deposit, with an average grade of 4.18 g/t (in terms of the low-grade ore that can be mined on a consolidated basis, the amount of gold ore is 3,022,379 t, and the amount of gold metal is 6,107 kg, with an average grade of 2.02 g/t).

In terms of new resources from this exploration, the amount of gold ore is 65,751,303 t and the amount of gold metal is 214,927 kg. In terms of new measured resources, the amount of gold ore is 23,509,618 t, and amount of gold metal is 100,666 kg; in terms of new indicated resources, the amount of gold ore is 39,554,593 t, and the amount of gold metal is 146,590 kg; in terms of inferred resources, the amount of gold ore increases by 2,687,092 t, and the amount of gold metal decreases by 32,329 kg.

Associated minerals:

From the perspective of making full use of resources, the associated minerals are estimated based on the principle of "whatever is available" for the main minerals. Part of the silver metal can be recovered in the smelting process later.

Associated silver: the amount of inferred ores is 144,993,673 t, and the amount of silver metal is 590,850 kg, with an average grade of 4.08 g/t; associated sulfur: the inferred resources include ores of 144,993,673 t, pure sulfur of 3,617,079 t with an average grade of 2.49%, and equivalent standard sulfur (at 35%) of 10,334,512 t.

7.3 Geological overview of the mining area

The exploration area is located in the northeastern section of the Sanshandao fault zone. No rock outcrops can be seen in the area, which is entirely covered by the Quaternary System and seawater. The tectonic development is dominated by the fracture structure; the magmatic rocks are widely distributed, with the Malianzhuang Sequence and Qixia Sequence in the Wutai-Fuping period of the Neotethyan era, the Linglong Sequence in the early Yanshan period of the Mesozoic era and the Guojialing Sequence in the late Yanshan period as the main body, and the derived veinstone is also relatively developed. The northeast-strike Sanshandao fault is the ore-controlling and ore-accommodating fault of the Xiling gold deposit, and its extension section is a favorable area for the existence of gold deposits. The Linglong Sequence and the Guojialing Sequence are the main ore-controlling wall rocks. Influenced by the Sanshandao fault zone, dynamic metamorphism exists at the Mesozoic granite tectonic development site, and structural brecciatization, cataclastic lithification, and even mylonitization occur in local sections. The long quartz mineral grains are crushed or plastically deformed, which forms the main ore-bearing layers in this area. The alteration of the wall rocks is zoned, mainly including potassium feldsparisation, beresitization, silicification and carbonatisation, etc. The alteration zone is controlled by the Sanshandao fault zone, and is developed in the monzonitic granite in the inner contact zone between the Cuizhao Unit of Linglong Sequence and the Luanjiazhai Unit of Malianzhuang Sequence. The superimposed distribution of sericitization and silicification is the main alteration in the area and has a close temporal and spatial relationship with gold mine.

7.3.1 Stratum

The exposed strata in the area mainly belongs to the Quaternary System. Secondly, in the hanging wall of the Sanshandao fault exposed in the boreholes, the inclusion body of the Lugezhuang Formation of the Jingshan Group can be seen. The Quaternary System mainly includes the Xukou Formation and Linyi Formation.

7.3.1.1 Lugezhuang Formation of Jingshan Group

The inclusion body of the Jingshan Group is distributed in the west side of the exploration area. As the Lugezhuang Formation, its lithology is mainly biotite plagioclase gneiss and biotite leptynite, followed by biotite schist.

Biotite plagioclase gneiss: grey-green, lepido granoblastic texture, gneissic structure. Main minerals: plagioclase (45%), quartz (30%), biotite (15%), amphibole (10%). Accessory minerals: apatite, sphene, phosphorite. Plagioclase is oligoclase-andesine, which is in the form of subhedral to anhedral granular crystals. Quartz is in the form of anhedral granular crystals with wavy extinction and directional elongation. Biotite is in the form of subhedral lamellar crystals with directional arrangement. Hornblende is in the form of euhedral to granular crystals. Accessory minerals are euhedral granular crystals.

Biotite leptynite: dark gray, fine-grained microscale lepido granoblastic texture, dense massive structure. The main minerals are feldspar, quartz and biotite. Feldspar is mainly alkaline feldspar. Biotite often undergoes chloritization, and is mostly in the form of scaly granular polycrystals. Quartz is in the form of xenomorphic fine granular crystals.

Biotite schist: gray black, medium-fine to coarse-grained lamellar phenocryst texture, schistose structure, the mineral composition is mainly biotite, plagioclase, quartz, and occasionally garnet.

7.3.1.2 Quaternary System

The Quaternary System mainly includes the Xukou Formation and the Linyi Formation.

7.3.2 Structure

The tectonic structure of the exploration area is dominated by faults. The largest one is the northeast-strike Sanshandao fault zone, followed by the northwest-strike F3 and F4 faults.

7.3.2.1 Sanshandao fault zone

The fault is located at lines 42~120 in the exploration area by means of engineering control, extending northward to lines 22~76 in the mining area in the northern sea of Sanshandao, extending southward to lines S120~11~187 in the area with mining rights of Sanshandao. The length of overall control strike is 12,270 m, and the depth of maximum inclination extension is 3,348 m; the overall strike is 35~58°, generally in a gentle wave shape, tending to the southeast. An obvious deflection exists locally in lines 147 and S42, with the inclination angle of 30~85°, and the structural rock width of 30~450 m.

The fault in the exploration area is the northeast section of the Sanshandao fault zone, with the maximum strike length of 2,750 m and the maximum inclination extension depth of 3,348 m. The strike is about 35°, leaning to the southeast, generally in a gentle wave shape, with the inclination angle of 40~52° above the elevation of -600 m; the section of the elevation of -600~-1,000 m in lines 76~88 is locally steepened, with the inclination angle of 70~80°; and the inclination angle below the elevation of -1,000 m tends to be more stable, mainly focusing on 30~45°. The main crack surface, marked by gray-ash black fault mud, is continuously developed, with a thickness of 0.01~0.5 m. The width of the tectonic rock belt ranges between 30~450 m, and with the main crack surface as the boundary, the tectonic rocks on the upper plate are granite cataclasite and cataclastic granite, and on the lower plate, they are mylonite, cataclasite, granite cataclasite and cataclastic granite. Among them, the cataclasite belt and the cataclastic granite belt are spread in a continuous belt, and the other fractured rock belt is spread in a discontinuous belt. The alteration of the wall rocks of the deposit is controlled in the fault zone of Sanshandao, and the morphology, scale and production of the fault zone and the

alteration zone are consistent. From the analysis of tectonic steps, scratches and tectonic lenses, the fault zone has a left-moving compression-torsion nature, and the important ore bodies exist in the opening and extension parts caused by right-lateral tension-torsion movement during the mineralization period in this area, representing the main ore-controlling structures in the zone. The fault zone has several structural surfaces, some of which are more completely developed, with better continuity and a certain degree of water insulation. The Sanshandao fault zone is characterized by multi-phase activities: early deformation is ductile deformation, and its macroscopic features are granite deformation, forming ductile shear zones, and manifested by the elongation of quartz minerals in the granite; medium-term deformation is brittle deformation, manifested as brecciation, fracture petrogenesis, and tensile gold-bearing quartz veins (see the crystal holes and the crystal clusters); and the late stage (after mineralization) is manifested by extrusion deformation, and forms extrusion zones and fault mud.

7.3.2.2 Northwest-strike faults

Northwest-strike fault F3 is located within the latest shrinkage range in the southwest of the exploration area. According to exploration data and mining data of Sanshandao Gold Mine, the F3 fault has a depth of more than 600 m, with a strike of 290~300°, extending to the northwest into Laizhou Bay. The inclination is mainly northeast, locally reverse-dipping, with an inclination angle of more than 80°. With a width of 10 m~25 m, the fault structure is composed of basic dike rocks such as cataclasite, breccia and lamprophyre. The width of basic dike rocks is 0.3~3.0 m, generally 0.7~1.3 m, being broken and montmorillonized, while the width of cataclasite and breccia is 0.3~1.5 m. The shallow part contains gray fault mud, which gradually decreases in the deeper part of the fault. This fault has at least two phases of activity. The first stage is tensile, causing a large amount of basic dike to intrude along the fault; the second phase is left-lateral translation, which breaks the lamprophyre and dislocates the left-lateral horizontally. Based on the characteristics of the F3 fault, such as the presence of traps or breccias of pyritic serpentinite in the lamprophyre, it is believed that this fault is the one with stronger activity after mineralisation. Due to the multiple activities of this fault, especially the activities after the mineralization period, the destructive effect on the ore bodies in the exploration area is very obvious. According to the actual data obtained from the mine production, the horizontal fault distance of the main ore bodies is approximately 20 m. This fault not only breaks itself, but also causes cracks in the wall rocks on both sides to develop, greatly reducing the stability of the wall rocks, thus posing certain difficulties to mining. The F3 fault does not pass through the current exploration area, and has little impact on mineral deposit development.

According to the magnetic survey results of the mining area in the northern sea area, it is inferred that there may be a northwest-strike structure along lines 28~30. It is verified through drilling and exploration that the northwest-strike F4 fault tends to the northeast, with an inclination angle of 84~88°, and the distribution width varies greatly, with obvious characteristics of first tension and then pressure. The exploration area is close to the mining area of the northern sea area. This exploration targets the F4 fault in key control area (lines 92~96) for the construction and

prospecting of joint inclined holes (9,782.64 m/4 holes), special engineering drilling (3,944.60 m/4 holes), pumping test (9 depth drops /3 holes), high-precision magnetic survey (5.24 km^2), audio magnetotelluric sounding (49 physical points), integrated geophysical logging (2,442.58 m/2 holes) in key control area (lines 92~96), supplemented by the investigation on 19 drilling cores, including ZK96-10, ZK96-11, ZK100-1, ZK100-4, and simplified hydrological observation data, and determining the dislocation of the main fault by the use of horizontal cross-section diagrams. Based on relevant results, it is determined that the fault does not extend into the Xiling Mine Area (even if it does, the distance would be small and it would pinch out quickly), or convert into local small structures.

7.3.3 Igneous rocks

The magmatic rocks seen in the construction and drilling of the exploration area are mainly the Malianzhuang Sequence and Qixia Sequence in the Wutai-Fuping period of the Neotethyan Era, the Linglong Sequence in the early Yanshan period of the Mesozoic Era and the Guojialing Sequence in the late Yanshan period.

7.3.3.1 Malianzhuang Sequence of the Neotethyan Era

This sequence is mainly distributed in the southwest side of the exploration area and the upper part of the Sanshandao fault zone. It is intruded in a large area in the form of bedrock, showing an intrusive contact with its lower Linglong Sequence. It is mainly composed of the Luanjiazhai Unit, with the main lithology of medium fine-grained gabbro (original amphibolite). The rock consists of a matrix and a vein body, the vein body is feldspathic and the matrix is a medium fine-grained gabbro.

The rock is grey green to dark green, with a lepido granoblastic texture, striped and gneissic structure. The main minerals are hornblende (65%), plagioclase (30%), quartz, and the accessory minerals include garnet, magnetite, chlorite, apatite, biotite and zircon, etc. Plagioclase is granular and plate-shaped, with albite flakes and twin crystals developed. Plagioclase has number of 39~43. The particle size is generally 0.5~1.2 mm. Hornblende has allotriomorphic granular texture with particle size of 0.4~0.9 mm. Quartz has allotriomorphic granular texture, mostly distributed along cracks, possibly a silicification product. Magnetite is altered by limonite.

7.3.3.2 Qixia Sequence

This sequence is mainly distributed in the southwest corner of the exploration area and the upper part of the Sanshandao fault zone. It is produced in the form of bedrock and is in intrusive contact with the Linglong Sequence in its lower part. It is mainly composed of the Xinzhuang Unit, and its lithology is medium-fine-grained hornblende-containing biotite diorite gneiss. The rock is dark gray-grey, with medium-fine grained granitic texture and gneissic structure. Minerals consist of plagioclase (38%), quartz (38%), sericite (21%), biotite (2%) and a small amount of limonite, apatite and trace epidote. The mineral particle size is 0.5~1.5 mm. Plagioclase is in anhedral clintheriform, with clear natrium feldspar bicrystals and obvious sericite. Muscovite is flake, slightly black, and is the product of biotite metasomatism.

7.3.3.3 Linglong Sequence of the Mesozoic Era

It is distributed along both sides of the Sanshandao fault and located in the footwall of the Malianzhuang Sequence. It is composed of Cuizhao Unit, and its lithology is medium-grained biotite monzonitic granite.

The rock is light flesh red, with a granite structure, and develops various metasomatic structures, including massive and gneissic structures. The main minerals are plagioclase (40%), potassium feldspar (30%), quartz (25%), biotite (5%), followed by epidote (2%), chlorite, magnetite, apatite (0.10%), sphene (0.10%), sericite and muscovite, etc. The main mineral grain size is between 2~4 mm. The metasomatic structure of rocks is complex, with metasomatic structure, recrystallization structure and strain structure being the most developed. Dark minerals (mainly biotite) are directionally arranged in the areas where granite gneissic structures develop.

Previous zircon LA-ICP-MS U-Pb data in fixed years show that the formation age of the Linglong Rock Body is 150~160 Ma (cited from the Report on Comprehensive Geological Research and Resource Prediction of Ultra-deep Region of Gold Deposit Accumulation Area in Northwestern Jiaodong Peninsula (《膠西北金礦集區超深部綜合地質研究與資源預測報告》). The SiO_2 content in the rock is 71.55%. It is an acidic rock of aluminum supersaturated series. Compared with the control lithology Chinese biotite granite and Daili Precambrian granite, the chemical composition is generally lower in oxide content, with Fe_2O_3, TiO_2, MnO_2, P_2O_5 being 1~4 times lower, and others slightly higher or lower. The value of Al_2O_3/K_2O+Na_2O+CaO is greater than 1.05. The accessory mineral is sphene-apatite type. All of them have high Sr87/Sr86 value, ranging between 0.7072~0.7094. They are mostly projected in the magmatic zone on the Q-Ab-Or diagram. This indicates that the rock is crust-source modified granite.

This rock is widely distributed in the region and is one of the main wall rocks of the deposit. The statistical gold element abundance value is 5.03×10^{-9}, which is similar to the crustal abundance value and relatively higher than other rock bodies, indicating that it is closely related to mineralization, but because its age of rock formation is much older than the age of mineralisation of the deposit, it is unlikely to provide metallogenic fluids and heat sources for the Xiling Gold Mine.

7.3.3.4 Guojialing Sequence of the Mesozoic Era

It is located in the footwall of the Linglong Sequence in the exploration area, and consists of the Shangzhuang Unit (K1yǒGš), and its lithology is giant porphyry medium-grained granite diorite.

The rock is light flesh red, with a porphyry-like structure, and the matrix has a subhedral granular texture with a massive structure. The phenocryst is potassium feldspar, with a content of (10~15%); the matrix is composed of plagioclase (35~40%), potassium feldspar (30~35%), quartz (20~30%), biotite (5%) and hornblende (3%). The accessory minerals include sphene, apatite, zircon, magnetite and allanite, etc. It is characterized by a porphyritic structure containing huge

potassium feldspar (microplagioclase) porphyritic porphyry (3~5 cm, up to 15 cm). Phenocryst potassium feldspar has a zonal structure, and its crystal contains a large number of mineral inclusions, mainly plagioclase, hornblende, biotite and a small amount of accessory minerals, and often has dissolved albite and acidic oligoclase strips. Plagioclase in the matrix also has typical compositional zonal. Under the microscope, various metasomatic structures formed in late hydrothermal processes are commonly seen, such as metasomatic residual structures, vermicular structures, metasomatic striated feldspars and inclusion structures. However, near fractures or within fracture zones, the deformation of the rock forms a porphyroclastic mylonitic texture.

Previous zircon SHRIMP U-Pb dating determined that the Guojialing Sequence intruded in the Early Cretaceous (126-130 Ma) (cited from the Report on Comprehensive Geological Research and Resource Prediction of Ultra-deep Region of Gold Deposit Accumulation Area in Northwestern Jiaodong Peninsula (《膠西北金礦集區超深部綜合地質研究與資源預測報告》)). SiO_2 in the rock varies between 64~72%, and MgO varies between 1.06~2.22%, which is higher than that of other granites. The Na_2O/K_2O ratio ranges between 0.64~1.79, and Na_2O+K_2O = 7.34%~8.39%, relatively rich in alkaline. Petrochemistry shows that the rock mass is aluminum type-I granite in the calc-alkali series. This rock mass has high Ba and Sr contents, as well as Sr/Y and La/Yb ratios, and the source area may be thickened crust. It shows that isotopes are the same as the basic dike rock in the Jiaodong area, but different from the Jurassic crustal melt granites. The dynamic background of the formation of this rock mass is consistent with that of Jiaodong Mesozoic granite. It should be formed by the melting of the lower crust caused by magma underplating during the lithospheric thinning process.

The Guojialing Sequence of the Mesozoic era intrudes within the Jiaodong Group metamorphic rocks of the Archaean era and Linglong granite rock mass, which are the main ore-controlling wall rocks of the gold deposit.

7.3.3.5 Dike rock

The Mesozoic dikes in the area are mainly distributed in the Linglong Sequence, mainly including lamprophyre and diabase porphyry, with a small amount of quartz porphyritic and amphibole seen in individual drillholes. Lamprophyre is mostly produced in the vein form along the NE direction fault in the alteration zone, with the length of 40~340 m, and the thickness is mostly 1~10 m, with a few being greater than 10 m. It is commonly found in carbonation, chloritization and pyrite. It is a vein rock in the mineralization stage, and gold mineralization and gold ore bodies are common in the contact areas with altered rocks. The diabase porphyrite is filled along the NW tension-shear fault and sometimes in the gold deposit, which is the post-mineralization dyke rock. Due to the xenolith of altered rock breccia and interspersion in the altered rocks, gold mineralization and gold ore bodies are found locally.

Quartz diorite porphyry is distributed in monzogranite, cutting fracture alteration zones, and suffered from fracture alteration itself (mostly carbonation, fine-grained pyrite), which is a product in the late stage of mineralization. Diorite

porphyry is distributed in monzogranite and commonly found in chloritization, sericitization and carbonate alteration, and it is a product in the late stage of mineralization.

7.3.4 Metamorphism and wall rock alteration

7.3.4.1 Metamorphism

Amphibolite phase metamorphism and greenschist phase metamorphism are commonly developed in the Precambrian basement in the exploration area. The representative mineral combination of greenschist phase is ordinary hornblende + epidote + chlorite + plagioclase + quartz. The representative mineral combination of amphibolite phase is ordinary hornblende + plagioclase ± biotite ± quartz. There is no obvious change trend in rock metamorphism grade with depth, with strong migmatization shown only in some areas, and no granulite phase high-grade metamorphic terrane is found.

The main type of basement metamorphism that exists in the boreholes is gray gneiss, with a small amount of metagabbro and garnet biotite plagioclase gneiss. The basement rock type that appears most frequently in the boreholes is gray gneiss (including gray-black tonalite gneiss and flesh-red ogre granitic gneiss), with the mineral combination of plagioclase + quartz + potassium feldspar + biotite ± hornblende, which is generally subjected to late-stage greenschist and chloritizing alterations. The metamorphic gabbro intruded into the gray gneiss has been essentially completely degraded.

It is plagioclase amphibolite, which is dark green-grey black, but retains a good variable afterglow structure, with the mineral combination of plagioclase + hornblende + sphene + ilmenite. Pomegranate biotite plagioclase gneiss is gray, and the mineral combination is plagioclase + garnet + quartz + biotite, most of which undergo obvious sodium zoisitization; garnets often develop irregular cracks and some porphyroblast develops sieve-like structure, often symbiotic with biotite. In addition, under the influence of the Sanshandao fault zone, dynamic metamorphism has occurred at the Mesozoic granite structure development site, and structural brecciatization, cataclastic lithification, and even mylonitization has occurred in local sections. The felsic mineral particles are often broken or plastically deformed, forming the main ore-bearing layers in this area.

7.3.4.2 Wall rock alteration

7.3.4.2.1 Alteration type

The alteration of wall rocks in the exploration area develops along the structural belt, mainly including potassium feldsparization, pyritic sericitization, silicification and carbonatization, etc. The intensity and scale of alteration depend on the nature of fractures and fissures and the strength of ore fluid dynamics. Its characteristics are: long duration of alteration, superposition of the alteration effects, obvious alteration zones, and gradual transition relationship between the zones.

7.3.4.2.2 Geological characteristics of alteration zone

The alteration zone in the exploration area, exposed by 176 boreholes, is controlled by the Sanshandao fault zone and distributed in lines 42~120. Among them, in lines 86~100, the alteration is strong and thick. The control area is 2,750 m long and 40~450 m wide. The alteration zone is controlled by the Sanshandao main fault with a general strike of 35°, an inclination angle of 22~80°, and an average inclination angle of 40.3°. The overall shape of the alteration zone is relatively stable, extending in a gentle wave-like direction, and deepening in a regular step-like manner (upward).

The alteration zone is controlled by the Sanshandao fault zone, and its shape, scale and occurrence are consistent with the fault zone. The alteration zone was developed within the monzogranite in the contact zone between the Cuizhao Unit of the Linglong Sequence of the early Mesozoic Yanshan and the Luanjiazhai Unit of the Malianzhuang Sequence of the Neoarchean Wutai-Fuping period.

7.3.4.2.3 Characteristics of alteration zoning

Alteration zones are reshaped by later structural changes and accompanying hydrothermal action, and are distributed in a band shape. According to the alteration type, alteration degree and mineral combination, etc., the alteration zones are divided as follows:

They are marked by the main crack surface of gray-ash black fault mud, basically symmetrically distributed. From the upper plate to the lower plate, they are: gangite zone, sericite granite zone, fault gouge (main crack surface), pyritic sericite cataclastic zone, pyritic sericite granite cataclastic zone, sericite granite zone and granite zone. There are thin layers of pyritic sericite mylonite and pyritic sericite distributed intermittently under the main crack surface, but locally missing. There is a gradual transitional contact between the various altered rock zones, without clear boundaries.

7.3.4.2.4 Mineralization characteristics of alteration zones

Within 126 m below the main crack surface is the pyritic sericite cataclastic zone (Zone I), which has the strongest alteration and gold mineralization. It is also the main existence layer of the ore body. Its mineralization is characterized by disseminated, massive or stringerdisseminated mineralization; within 200 m below Zone I is the pyritic sericite granite cataclastic zone (Zone II), which is an important ore-bearing layer. Its mineralization characteristics are mainly net-vein and stringerdisseminated mineralization; within 182 m above Zone I (Zone L) and 132 m below Zone II is the sericite granite zone (Zone III), whose mineralization is in the form of veins and net-veins. At the outermost edge of

the entire alteration zone is a granite belt with local sericization alteration (Zones S and IV). The mineralization is very slight, and small ore bodies can be found locally.

7.3.4.3 Mineralization characteristics

Within 0~105 m below the main crack surface is the pyritic sericite cataclastic zone (Zone I), which has the strongest alteration and gold mineralization. It is also the existence layer of the main ore body. Its mineralization is characterized by disseminated, massive or stringer disseminated mineralization; within 0~90 m below Zone I is the pyritic sericite granite cataclastic zone (Zone II). Its mineralization characteristics are mainly net-vein and stringer disseminated mineralization; within 0~100 m above Zone I and 0~80 m below Zone II is the sericite granite zone, whose mineralization is in the form of veins and net-veins. At the outermost edge of the entire alteration zone is a granite belt with local sericization alteration (Zones S and IV). The mineralization is very slight, and sporadic ore bodies can be found locally.

7.4 Geological characteristics of ore bodies

7.4.1 Ore body characteristics

The ore bodies existing in the Sanshandao fault alteration zone are distributed in a stepped manner. The gold ore bodies in the exploration area are the north-east extension of the Sanshandao ore body group in the deep part of the area and the lateral part of the ore body. The main ore bodies and secondary ore bodies are controlled by the Sanshandao fault zone in strike and inclination, with relatively stable occurrence and sound continuity. The spatial distribution of each ore body is: parallel arrangement in strike, up and down in tendency. The ore body to the north of line 76 is affected by the law of lateral ambush, and the burial depth of the ore body increases significantly. The ore body is in the shape of gentle waves and "stepped" distribution, with the overall inclination angle of 30~60°. In the ore body to the north of line 64, the local occurrence slows down, the inclination angle decreases to 20~30°, and the thickness of ore body increases. The thick parts of the ore body above -1,000 m elevation are mainly located in lines 64~78, and the thick parts of the ore body below -1,000 m elevation are mainly located in lines 86~96.

As the main and secondary ore bodies in the exploration area are consistent and continuous with the ore bodies exposed in the adjacent northern sea mining area, the overall characteristics of the ore bodies and the characteristics within the Mineral right are described in accordance with the two parts of "Xiling- northern sea area" and "within the prospecting right" respectively. The scope of this resource estimate is limited to the prospecting right and does not involve the mining area in the northern sea area.

The ore bodies in the entire area are re-numbered according to the following principles: (1) they are divided into 6 mineralization alteration zones according to lithology, degree of mineralization and alteration and spatial distribution characteristics, and are numbered from top to bottom as Zone S (granite zone), Zone L (sericite granite zone), Zone I (pyritic sericite cataclastic zone), Zone II (pyritic sericite granite cataclastic zone), Zone

III (sericite granite zone) and Zone IV (granite zone). Sanshandao fault surface serves as the main marker bed and is located between Zone L and Zone I. (2) The ore bodies in each alteration zone are numbered as "alteration zone number - sequence number" in accordance with the principle from hanging wall to footwall and from shallow to deep. The ore body numbering principle is basically in line with that in the "General Exploration Report on Xiling Gold Mine in Sanshandao Mine Area in Laizhou City, Shandong Province". Among them, the main ore bodies are I-1 and I-2, and the secondary ore bodies are II-1, II-2, II-3, III-1, and the others are small ore bodies.

There are 58 mineable and utilizable ore bodies and 6 ore bodies that cannot be utilized temporarily as delineated within Zone I (pyritic sericite cataclastic zone), numbering I-1~I-43, I-45~I-65. I-1 and I-2 are the main ore bodies, and their amounts of gold ores account for 34.07% and 35.96% of the total amount of gold ores in the deposit, respectively. Their amounts of gold metal account for 31.63% and 31.60% of the total amount of gold metal in the deposit, respectively.

There are 66 mineable and utilizable ore bodies and 1 ore body that cannot be utilized temporarily as delineated within Zone II (pyritic sericite granite cataclastic zone), numbering II-1~II-67. II-1, II-2 and II-3 are the secondary ore bodies, and their amounts of gold ores account for 9.02%, 12.92% and 5.29% of the total amount of gold ores in the deposit, respectively. Their amounts of gold metal account for 9.30%, 16.96% and 7.70% of the total amount of gold metal in the deposit, respectively.

There are 53 mineable and utilizable ore bodies and 2 ore bodies that cannot be utilized temporarily as delineated within Zone III (footwall sericite granite zone), numbering III-1~III-55. III-1 is the secondary ore body, and the amount of gold ores accounts for 1.18% of the total amount of gold ores in the deposit. The amount of gold metal accounts for 1.29% of the total amount of gold metal in the deposit.

There are 28 ore bodies that cannot be utilized temporarily as delineated within Zone IV (footwall granite zone), numbering IV-1~IV-28.

There are 46 ore bodies that cannot be utilized temporarily as delineated within Zone L (hanging wall sericite granite zone), numbering L-1~L-46.

There are 35 ore bodies that cannot be utilized temporarily as delineated within Zone S (hanging wall granite zone), numbering S-1~S-35.

7.4.1.1 Orebody I-1

Orebody I-1 is developed below the main crack surface of F1 (Sanshandao main fault), within the range of 0~31.4 m (ZK104-2) away from the main crack surface, and exists in the pyrite sericite cataclastic zone. The ore type is disseminated pyrite sericite cataclastic ore, corresponding to ①-1 ore body within the Sanshandao mining rights and I-3 ore body in the mining area of the northern sea area. The overall orebody is produced in a bedded-like form, with expansion, shrinkage, branching, compounding and pinch-out reappearance occurring locally. Dunn bass is developed at 80~100 lines -1,174~-2,612 m, with the maximum strike length of 395 m,

maximum slope depth of 647 m and thickness of 3~9 m, which are bedded-like, lenticular and long tongue-shaped. The orebody has no fault dislocation or vein rock interspersion, and the late structure has little impact on the orebody.

Characteristics of ore bodies in Xiling-northern sea area: controlled by 138 boreholes, distributed in Xiling 48 lines~northern sea area 38 lines, exist in the elevation range of -892 (ZK84-6)~-2,612 m (ZK88-23), with burial depth of 895 (ZK84-6)~2,616 m (ZK88-23); ore body strike is 2~58°, with general strike of 29°, inclination of 92~148°, average inclination of 119°, inclination angle of 17~59°, and average inclination angle of 40°; the controlled ore body has the maximum strike length of 2,451 m and maximum slope depth of 2,057 m (88 lines).

Characteristics within the prospecting right: controlled by 104 boreholes, distributed in 56~112 lines, exist in the elevation range of -892 m (ZK84-6)~-2,612 m (ZK88-23), with burial depth of 895 m (ZK84-6)~2,616 m (ZK88-23); ore body strike is 2~58°, with general strike of 27°, inclination of 92~148°, average inclination of 117°, inclination angle of 18~59°, and average inclination angle of 40°; the controlled ore body has the maximum strike length of 2,085 m and maximum slope depth of 2,057 m (88 lines). The ore body extends out of the exploration area along the strike and inclination, and the ore body is not closed. The mineable area of ore bodies within the scope of prospecting right is 1,538,965 m^2, and the amount of gold ores discovered is 50,184,523 t, accounting for 34.07% of the total amount of gold ores in the deposit; the amount of gold metal is 187,342 kg, accounting for 31.63% of the total amount of gold metal in the deposit.

Single engineering thickness of ore bodies involved in resources estimation is 0.59 m (ZK64-6)~57.38 m (ZK96-11), with arithmetic average thickness of 10.39 m and thickness variation coefficient of 105.58%, which is an ore body with relatively stable thickness variation. Single engineering grade of ore body is 1.12 g/t (ZK64-5, ZK142)~13.28 g/t (ZK84-2), and single engineering average grade is 3.75 g/t. The gold grade of single sample of ore bodies involved in resources estimation is 0.05 g/t (ZK80-3 sample H126)~131.87 g/t (ZK90-9 sample H111), with arithmetic average grade of 4.09 g/t and grade variation coefficient of 168.22%, which is an ore body with uneven distribution of beneficial components.

On the whole, Orebody I-1 has a trend of lateral bending in the northeast with lateral angle of 32°, pitching trending of 57° and pitching angle of 23°. From 86 lines -1,050 m elevation to 92 lines -1,750 m elevation, 96 lines -1,750 m elevation to 100 lines -2,300 m elevation, 80 lines -2,350 m elevation to 88 lines -2,000 m elevation, there exists 3 rich ore sections about 100 m~330 m wide according to the law of lateral bending, with lean ore or no ore sections on both sides. Silver grade of single sample involved in combination analysis is 0.50~97.50 g/t, with average grade of 4.35 g/t, grade variation coefficient of 200.46%, the amount of inferred ores discovered of 50,184,523 t, and the amount of silver metal of 218,303 kg; sulfur grade of single sample involved in combination analysis is 0.49~6.35%, with average grade of 2.63%, and grade variation coefficient of 47.53%. The inferred resources include ores of 50,184,523 t, pure sulfur of 1,319,853 t, and equivalent standard sulfur (at 35%) of 3,771,009 t.

7.4.1.2 Orebody I-2

Orebody I-2 is developed in the footwall of Orebody I-1, within the range of 3.3 m (ZK94-4)~87.4 m (ZK92-13) away from the floor of Orebody I-1, and exists in the pyrite sericite cataclastic zone. The ore type is disseminated pyrite sericite cataclastic ore, corresponding to I-4-1 ore body in the mining area of the northern sea area. The overall orebody is produced in a bedded-like form, with expansion, shrinkage, branching, compounding and pinch-out reappearance occurring locally. Dunn bass is developed in 76~104 lines -967~-2,630 m, with the maximum strike length of 351 m, maximum slope depth of 617 m and thickness of 3~23 m, which are long tongue-shaped and bedded-like. The orebody has no fault dislocation or vein rock interspersion, and the late structure has little impact on the orebody.

Characteristics of ore bodies in Xiling-northern sea area: controlled by 148 boreholes, distributed in Xiling 64 lines~northern sea area 46 lines, exist in the elevation range of -911 m (ZK84-6)~-2,631 m (ZK88-23), with burial depth of 914 m (ZK84-6)~2,635 m (ZK88-23); ore body strike is 2~63°, with general strike of 28°, inclination of 92~153°, average inclination of 118°, inclination angle of 25~66°, and average inclination angle of 41°; the controlled ore body has the maximum strike length of 1,744 m and maximum slope depth of 2,425 m (96 lines).

On the whole, Orebody I-2 has a trend of lateral bending in the northeast with lateral angle of 49°, pitching trending of 72° and pitching angle of 35°. From 72 lines -950 m elevation to -1,100 m elevation, 92 lines -1,300 m elevation to 94 lines -1,650 m elevation, 96 lines -1,600 m elevation to 100 lines -2,350 m elevation, there exists 3 rich ore sections about 90~200 m wide, with lean ore or no ore sections on both sides.

Silver grade of single sample involved in combination analysis is 0.23 g/t~44.31 g/t, with average grade of 3.89 g/t, grade variation coefficient of 128.53%, the amount of inferred ores discovered of 52,958,247 t, and the amount of silver metal of 206,008 kg; sulfur grade of single sample involved in combination analysis is 0.23~13.90%, with average grade of 2.49%, and grade variation coefficient of 71.08%. The inferred resources include ores of 52,958,247 t, pure sulfur of 1,318,660 t, and equivalent standard sulfur (at 35%) of 3,767,600 t.

7.4.1.3 Orebody II-1

Orebody II-1 is developed in Alteration Zone II in the footwall of Alteration Zone I, within the range of 3.5 m (ZK96-9)~77.2 m (ZK92-3) away from the floor of Orebody I-2, and exists in the pyritic sericite granite cataclastic zone. The ore type is stringer-disseminated pyrite sericite granitic cataclastic ore, corresponding to I-4-2 ore body in the mining area of the northern sea area. The overall orebody is produced in a bedded-like form, with branching and compounding occurring locally. Dunn bass is developed in 88~94 lines -1,076~-1,590 m, with the maximum strike length of 287 m, maximum slope depth of 247 m and thickness of 4~5 m, which are long tongue-shaped. The orebody has no fault dislocation or vein rock interspersion, and the late structure has little impact on the orebody.

Characteristics of ore bodies in Xiling-northern sea area: controlled by 118 boreholes, distributed in Xiling 64 lines~northern sea area 42 lines, exist in the range of -994 m (ZK68-1)~-2,119 m (ZK100-5), with burial depth of 996 m (ZK68-1)~2,124 m (ZK100-5); ore body strike is 357~57°, with general strike of 25°, inclination of 87~147°, average inclination of 115°, inclination angle of 23~69°, and average inclination angle of 42°; the controlled ore body has the maximum strike length of 2,351 m and maximum slope depth of 1,102 m (96 lines).

Characteristics within the prospecting right: controlled by 79 boreholes, distributed in 64~100 lines, and elevation is within the range of -994 m (ZK68-1)~-2,119 m (ZK100-5), with burial depth of 996 m (ZK68-1)~2,124 m (ZK100-5). Ore body strike is 357~57°, with general strike of 19°, inclination of 87~147°, average inclination of 109°, inclination angle of 23~67°, and average inclination angle of 43°; the controlled ore body has the maximum strike length of 1,005 m and maximum slope depth of 798 m (92 lines). The mineable area of ore bodies within the scope of prospecting right is 618,252 m^2, and the amount of gold ores discovered is 13,284,579 t, accounting for 9.02% of the total amount of gold ores in the deposit; the amount of gold metal is 55,105 kg, accounting for 9.30% of the total amount of gold metal in the deposit.

7.4.1.4 Orebody II-2

Orebody II-2 is developed in Alteration Zone II in the footwall of Alteration Zone I, located in the footwall of Orebody II-1, within the range of 3.0 m (ZK86-3) ~69.5 m (ZK90-4) away from the floor of Orebody II-1, and exists in the pyritic sericite granite cataclastic zone. The ore type is stringer-disseminated pyritic sericite granite cataclastic ore, corresponding to I-4-3 ore body in the mining area of the northern sea area. The overall orebody is produced in a bedded-like and large veined form, with branching and compounding occurring locally. Dunn bass is developed in 80~104 lines -996~1,832 m, with the maximum strike length of 475 m, maximum slope depth of 349 m and thickness of 3~10 m, which are long tongue-shaped and bedded-like. The orebody has no fault dislocation or vein rock interspersion, and the late structure has little impact on the orebody.

Characteristics of ore bodies in Xiling-northern sea area: controlled by 120 boreholes, distributed in Xiling 64 lines~northern sea area 46 lines, exist in the range of -995 m (ZK88-4)~-1,863 m (ZK3414), with burial depth of 998 m (ZK88-4)~1,868 m (ZK3414); ore body strike is 353~47°, with general strike of 25°, inclination of 83~137°, average inclination of 115°, inclination angle of 22~69°, and average inclination angle of 41°; the controlled ore body has the maximum strike length of 2,953 m and maximum slope depth of 1,260 m.

Characteristics within the prospecting right: controlled by 73 boreholes, distributed in 64~100 lines, and elevation is within the range of -995 m (ZK88-4)~-1,856 m (ZK88-21), with burial depth of 998 m (ZK88-4)~1,861 m (ZK88-21). Ore body strike is 353~47°, with general strike of 18°, inclination of 83~137°, average inclination of 108°, inclination angle of 22~54°, and average inclination angle of 41°; the controlled ore body has the maximum strike length of 1,071 m and maximum slope depth of 1,260 m (88 lines). The mineable area of ore bodies within the scope of prospecting right is 549,042 m^2, and the amount of gold ores discovered is 19,034,459 t, accounting for 12.92% of the total amount of gold ores in the deposit; the amount of gold metal is 100,439 kg, accounting for 16.96% of the total amount of gold metal in the deposit.

7.4.1.5 Orebody II-3

Orebody II-3 is developed in Alteration Zone II in the footwall of Alteration Zone I, located in the footwall of Orebody II-2, within the range of 3.6 m (ZK94-5)~85.4 m (ZK86-4) away from the floor of Orebody II-2, and exists in the pyritic sericite granite cataclastic zone. The ore type is stringer-disseminated pyritic sericite granite cataclastic ore, corresponding to I-4-4 ore body in the mining area of the northern sea area. The overall orebody is produced in a bedded-like and large veined form, with branching and compounding occurring locally. Dunn bass is developed in 86~96 lines -1,103~-1,690 m, with the maximum strike length of 108 m, maximum slope depth of 289 m and thickness of 5~10 m, which are long tongue-shaped. The orebody has no fault dislocation or vein rock interspersion, and the late structure has little impact on the orebody.

Characteristics of ore bodies in Xiling-northern sea area: controlled by 80 boreholes, distributed in Xiling 82 lines~northern sea area 38 lines, exist in the range of -1,072 m (ZK2804)~-1,868 m (ZK88-21), with burial depth of 1,076 m (ZK2804)~1,873 m (ZK88-21); ore body strike is 356~54°, with general strike of 29°, inclination of 86~144°, average inclination of 119°, inclination angle of 27~66°, and average inclination angle of 41°; the controlled ore body has the maximum strike length of 1,322 m and maximum slope depth of 1,098 m (88 lines).

Characteristics within the prospecting right: controlled by 47 boreholes, distributed in 82~96 lines, and elevation is within the range of -1,173 m (ZK88-3)~-1,868 m (ZK88-21), with burial depth of 1,176 m (ZK88-3)~1,873 m (ZK88-21). Ore body strike is 356~54°, with general strike of 23°, inclination of 86~144°, average inclination of 113°, inclination angle of 32~58°, and average inclination angle of 43°; the controlled ore body has the maximum strike length of 541 m and maximum slope depth of 1,098 m (88 lines). The mineable area of ore bodies within the scope of prospecting right is 227,128 m^2, the amount of gold ores discovered is 7,797,889 t, accounting for 5.29% of the total amount of gold ores in the deposit; the amount of gold metal is 45,603 kg, accounting for 7.70% of the total amount of gold metal in the deposit.

7.4.1.6 Orebody III-1

Orebody III-1 is a type II ore body, developed in Alteration Zone III in the footwall of Alteration Zone II, located in the footwall of Orebody II-3, within the range of 2.4 m (ZK92-12)~79.4 m (ZK94-2) away from the floor of Orebody II-3, and exists in the pyritic sericite granite cataclastic zone. The ore type is stringer-net-veined pyritic sericite granite cataclastic ore. The overall orebody is produced in a bedded-like and large veined form. The orebody has no fault dislocation or vein rock interspersion, and the late structure has little impact on the orebody.

The ore body is controlled by 22 boreholes, distributed in 88~96 lines, and elevation is within the range of -1,393 m (ZK92-2)~-1,775 m (ZK92-5), with burial depth of 1,397 m (ZK92-2)~1,779 m (ZK92-5). Ore body strike is 8°~39°, with general strike of 21°, inclination of 98~129°, average inclination of 111°, inclination angle of 34~56°, and average inclination angle of 44°; the controlled ore body has the maximum strike length of 425 m and maximum slope depth of 512 m (92 lines). The ore body in the exploration area has been closed along the strike and inclination. The mineable area of ore bodies within the scope of prospecting right is 86,185 m^2, the amount of gold ores discovered is 1,733,976 t, accounting for 1.18% of the total amount of gold ores in the deposit; the amount of gold metal is 7,644 kg, accounting for 1.29% of the total amount of gold metal in the deposit.

7.4.1.7 Geological characteristics of other ore bodies

Except I-1, I-2, II-1, II-2, II-3 and III-1 ore bodies, there exists 171 small mineable and utilizable ore bodies in Zones I, II and III within the overlap range of type I ore body resources estimation, of which 56 small mineable and utilizable ore bodies are in Zone I, 63 in Zone II and 52 in Zone III.

The above small mineable and utilizable ore bodies are of low grade and small scale, controlled by 1~6 boreholes with ore, distributed in 64~112 lines, and elevation is within the range of -1,063 m (I-3) ~-2,616 m (I-65), with burial depth of 1,065 m (I-3)~2,621 m (I-65). The occurrence is controlled by the alteration zone, with inclination of 84~157°, and inclination angle of 23~73°. The controlled ore body has the maximum strike length of 60~234 m (I-29) and maximum slope depth of 50~177 m (I-29). The ore body is simple in morphology and small lenticular.

7.4.2 Quality characteristics of ores

7.4.2.1 Ore material composition

(1) Ore texture and structure

Ore texture: The common ore texture is mainly crystalline-granular texture, followed by cataclastic texture, metasomatic texture and poikilitic texture, and a few are graphic texture, emulsion texture, etc.

① Crystalline-granular texture

It is the major texture characteristic of metallic minerals such as pyrite and chalcopyrite in ores. The morphology size and late degree of fragmentation of pyrite at different mineralization stages are also different, and can be divided into euhedral crystalline-granular texture, semi-euhedral crystalline-granular texture, anhedral crystalline-granular texture and transitional crystalline-granular textures such as euhedral-semi-euhedral, semi-euhedral-anhedral, etc. Electrum mainly exists in mineral crystal gaps and broken fissures.

② Crushed texture

During the process of geological action, fissures and fragmentation are developed in some coarse-grained pyrite particles, and most of them fragment into sub-angular-angular shape, forming a crushed texture.

③ Intersertal texture

Pyrite and quartz generated early in the ores are broken and produce fissures due to tectonic action, and the late pyrite, chalcopyrite, galena, sphalerite, magnetite, limonite, electrum, hessite, quartz, etc. are filled and metasomatic along with pyrite and others mineral crystal gaps and fissures, forming an intersertal texture.

④ Poikilitic texture

Granular pyrite and sphalerite crystals are wrapped in pyrite, chalcopyrite and galena crystals in the ores; natural gold or electrum is irregularly granular and wrapped in pyrite, quartz, and chalcopyrite crystals, forming a poikilitic texture.

⑤ Metasomatic relict texture

Sericite and carbonate minerals metasomatize plagioclase and potassium feldspar of the protolith to form a metasomatic relict texture.

⑥ Metasomatic pseudomorph texture

Individual plagioclase is completely metasomatized by sericite, with only the plagioclase crystal form left to form a metasomatic pseudomorph texture.

⑦ Graphic texture

This texture is only partially visible. Occasionally, chalcopyrite is partially metasomatized by galena and the two intergrow to form a microscopic graphic texture.

⑧ Emulsion texture

There are emulsion chalcopyrite and hessite particles in the pyrite crystal to form an emulsion texture.

⑨ Wormy texture

Individual potassium feldspar and quartz intergrow to form a wormy texture.

Ore structure: The ore mainly has disseminated, veined, stringer-disseminated and spotted structures, followed by brecciated and interlaced veined structures.

① Disseminated structure: Metal minerals such as pyrite and chalcopyrite are distributed in gangue minerals in densely disseminated, sparsely disseminated or scattered form.

② Veined structure: Metal minerals such as pyrite are distributed in gangue minerals in the form of veins.

③ Stringer-disseminated structure: Metal minerals in the ore are distributed evenly in the scattered form or partially irregularly and relatively concentrated in the quartz particles, forming a disseminated structure. At the same time, they also fill and distribute along the fissures of the ore in the form of stringer, forming a stringer-disseminated structure.

④ Spotted structure: Metal mineral aggregates are distributed in the gangue minerals in a spotted form.

⑤ Brecciated structure: Quartz breccia and breccia composed of quartz pyrite, chalcopyrite and other mineral aggregates are cemented by gold-containing quartz polymetallic sulfides into a brecciated structure.

⑥ Interlaced veined structure: Gold-quartz-polymetallic sulfide fills along two sets of intersecting fissures to form an interlaced veined structure.

(2) Main mineral components

Gold minerals in the ore are mainly natural gold and electrum. Metallic minerals are mainly pyrite, with a small amount of sphalerite, chalcopyrite, galena, arsenopyrite, etc., and occasionally pyrrhotite, bismuthinite, gold minerals, etc. Non-metallic minerals are mainly quartz, followed by muscovite, plagioclase, potassium feldspar, with a small amount of calcite, chlorite, dolomite, and occasionally hornblende, sphene, rutile, etc.

(3) Disseminating characteristics of main minerals

① Pyrite

Pyrite is the main metal mineral in the ore and also the most important gold-bearing mineral, and is formed in the I-III mineralization stages. The content accounts for more than 93% of the total amount of metal minerals, mostly in the form of anhedral- semi-euhedral granular and irregular granular, disseminated in the sericite or filled in the fissures in the form of veins. Major particle size is 0.01~2 mm. Generally, parts rich in fine-grained pyrite have higher gold grade. It can be divided into early and late stages: early stage pyrite is irregularly granular, a small amount of which is distributed in cubic euhedral crystals in minerals such as quartz and sericite. Due to late stage hydrothermal modification and stress action, they are often squeezed and broken to develop fissures, and are metasomatized by minerals such as late stage fine-grained pyrite and arsenopyrite, or filled with late stage pyrite, showing a crushed structure. Coarse-grained pyrite often contains minerals such as chalcopyrite and pyrrhotite, or interspersed by galena and chalcopyrite stringers in the gold-containing polymetallic sulfide stage. Late stage fine-grained pyrite is also distributed in the quartz and early stage pyrite in the form of stringers and net-veins together with chalcopyrite, galena, arsenite, etc. Gold is mainly electrum in pyrite.

② Sphalerite

Sphalerite is distributed in anhedral granules among gangue mineral grains, or distributed in the form of veined aggregates in pyrite fissures, with a small amount of anhedral microgranular paragenetic with chalcopyrite distributed among gangue mineral particles.

③ Chalcopyrite

Chalcopyrite is also a common metal sulfide in Mineralization Stage III. It is often anhedral granular and irregular in shape and wrapped in pyrite, or is filled in the pyrite fissures or non-metallic mineral fissures in the form of veins or net-veins, or is paragenetic with galena. Chalcopyrite is often dissolved in sphalerite in the form of emulsion, and sometimes distributed alone in the sericite in the form of dissemination.

④ Galena

Galena is a common metal sulfide in Mineralization Stage III. Major particle size is 0.005~0.3 mm. It is often produced in pyrite and non-metallic minerals in the form of stringer and dissemination, or metasomatizes pyrite and tennantite. Galena is often paragenetic with electrum and distributed in pyrite fissures in the form of veins. Also, galena is distributed alone in anhedral crystals or paragenetic with tennantite or chalcopyrite (Ccp) in the form of veins in the sericite.

⑤ Arsenopyrite

Arsenopyrite is a sulfide mineral in the ore, formed in Mineralization Stage II. The content is second only to pyrite, which varies greatly in different sections. Generally, it is distributed in the euhedral crystalline-granular or semi-euhedral crystalline-granular form (grain size is 0.005~1.0 mm) in non-metallic minerals or early stage pyrite, and metasomatizes early stage pyrite. It often contains minerals such as chalcopyrite, pyrrhotite and galena, and sometimes sphalerite inclusion in its interior.

⑥ Quartz

Quartz is the most important non-metallic mineral in the ore and also a common mineral in various mineralization stages. There are primary and secondary quartz. Primary quartz is euhedral-semi-euhedral, with relatively coarse crystalline grains, mostly distributed in the form of aggregates, lumps and stringers. Secondary quartz is anhedral crystal with fine grain size, or is produced in a subrounded shape. It often appears in aggregates with sericite, caused by hydrothermal alteration, closely related to gold mineralization and contains a small amount of intercrystalline gold.

⑦ Sericite

Sericite is also the main non-metallic mineral in the ore and appears in the I-III mineralization stages. It is a tiny scaly aggregate with silky luster. It is mainly the product of metasomatizing potassium feldspar, plagioclase, etc. It is a hydrothermal alteration mineral, often paragenetic with fine-grained quartz and disseminated pyrite.

⑧ Calcite

Calcite is distributed in anhedral granules and occasionally in scattered form, and some aggregates are often distributed in the form of veins.

(4) Granulometric characteristics of main minerals

According to grading standards in the "Specifications for Rock Gold Mineral Exploration" (DZ/T0205-2020), the ores in this area are mainly fine-grained gold and micro-grained gold, with a small amount of medium-grained gold and coarse-grained gold.

7.4.2.2 Chemical component of ores and wall rocks

Within the scope of the exploration area, a total of 52 ore qualitative, semi-quantitative and full analysis samples (26 for exploration), 11 full chemical analysis samples (5 for exploration), and 969 combination analysis samples (717 for exploration) are taken.

According to the basic analysis results of the samples, beneficial component in the ore is mainly gold, and the gold content in the ore is 0.05 g/t~496.98 g/t (ZK88-16 sample H277), with an average gold grade of 4.02 g/t in the deposit. Based on the results of the qualitative, semi-quantitative and full analysis and full chemical analysis, the associated beneficial components silver and sulfur meet the appraisal requirements, while the contents of other elements are low. According to the results of combination analysis, the average grade of associated component silver is 3.85 g/t, and the content of sulfur is 2.23%.

According to mineral processing tests and actual production conditions of surrounding mines, silver and sulfur can be comprehensively recycled as associated beneficial components.

Other components do not meet comprehensive utilization standards. According to the results of the full chemical analysis, the arsenic content in the associated harmful components is 0.0029%, far lower than 0.2%, which has no impact on processing.

7.4.3 Ore type and grade

7.4.3.1 Natural types of ores

It is found that the ore bodies are buried deep below 300 m, with no weathering phenomenon, and the natural types of ores are all primary ores.

7.4.3.2 Origin types of ores

The deposit is located in the northern section of the Sanshandao - Cangshang fault. It is a fractured zone altered rock type gold deposit, that is Jiaojia style gold deposit. The gold ores are mainly disseminated pyrite sericite cataclastic, stringer-disseminated pyritic sericite granite cataclastic and stringer – net-veined pyritic sericite granite cataclastic ores, etc.

7.4.3.3 Industrial types of ores

Gold in the ores mainly exists in metal sulfides and gangue minerals in the form of electrum and natural gold independent minerals. Through the ore combination analysis, the average sulfur content of the ores is 2.23%, and the industrial types of ores are low-sulfur ores.

7.4.5 Wall rocks of ore body and sandwiched rocks

The alteration of wall rocks of the deposit is developed, and its scale and intensity depend on the scale and nature of the fault structure and the degree of rock fragmentation. Alteration types include potash feldspathization, beresitization, carbonatization, chloritization, silicification, hematitization and other alterations.

The ore bodies are mainly distributed below the main fracture surface, above which a small number of small single-engineering controlled lenticular ore bodies are developed. The ore lithology is pyrite sericite cataclastic rock, pyritic sericitic granitic cataclastic rock and sericite granite. The wall rocks of ore bodies are pyrite sericite cataclastic rock, pyrite sericite granite cataclastic rock and sericite granite.

There is no obvious difference between the lithology, texture and structure of wall rocks and those of the ore bodies. There is a gradual transition relationship between the two, the main difference between which is based on the analysis results of samples. Metal sulfides such as pyrite produced in the form of dissemination, stringers and veins are common in ore bodies, with a high gold content. The metal sulfide content and gold content in the wall rocks are lower than those in the ore bodies.

Zone I ore body exists in the pyritic sericite cataclastic zone in the footwall of the main fault. The surrounding wall rocks in the hanging wall and footwall of ore body are mainly pyrite sericite cataclastic rock with gold grade of 0.05~0.52 g/t, while the gold grade of individual sample reaches 1.90 g/t, and hazardous component As content is 2.90 g/t.

Zone II ore body exists in the pyrite seritic granitic cataclastic zone in the footwall of the main fault. The surrounding wall rocks in the hanging wall and footwall of ore body are mainly pyrite sericite granitic cataclastic rock with a gold grade of 0.05~0.82 g/t, while the gold grade of individual sample reaches 1.40 g/t, and hazardous component As content is 21.18 g/t.

Zone III ore body exists in the pyrite seritic granitic cataclastic zone in the footwall of the main fault. The surrounding wall rocks in the hanging wall and footwall of ore body are mainly pyrite-sericite granitic cataclastic rock with gold grade of 0.05~0.30 g/t, while the gold grade of individual sample reaches 1.16 g/t, and hazardous component As content is 25.10 g/t.

The occurrence of sandwiched rocks is basically the same as that of the ore body, and the mineral composition, texture and structure are similar to those of the ores. According to its existence spatial location, it can be divided into two types: one is produced inside the ore body, and is lenticular and small in scale; the other is sandwiched between ore bodies and connected to the wall rocks, and is bedded-like, long plated and tongue-shaped, with large changes in scale.

The sandwiched rocks are mostly long tongue-shaped and connected with the wall rocks or are lenticular and enclosed within the ore body, with individual being bedded-like. The lithology of sandwiched rocks is basically the same as the lithology of the ore body, and is mainly distinguished by the degree of gold mineralization. The sandwiched rocks contain less metal sulfides and has lower gold grade.

According to the statistics of exploration work, there are a total of 25 sandwiched rocks, controlled by 282 samples in 34 projects (89 samples with gold grade ≥ 0.50 g/t), and distributed in 6 important ore bodies. The lithology is mainly composed of pyrite sulphite cataclastic rock and pyrite sericite granitic cataclastic rock, whose existence elevation is -967~-2,630 m, with an average grade of 0.41 g/t and average thickness of 7.30 m, and hazardous component As content is 10.00 g/t.

7.4.6 Genesis of mineral deposit

The genesis of Xiling gold deposit belongs to alteration rock type gold deposit formed by mesothermal magmatic hydrothermal filling and metasomatism.

7.5 Ore processing technology performance

The existing Xinli concentrator of Sanshandao Gold Mine has a processing capacity of 10,500 t/d, and adopts one-stage grinding process, with the grinding fineness of -0.074 mm, accounting for 55%. The flotation system adopts the column-machine combined process with one coarse and one fine process of the flotation column as the main part, supplemented by fast flotation and stability sweeping process of the flotation machine. The froth product of rapid flotation and concentration is gold concentrate. According to actual production data, the recovery rate of gold beneficiation can reach 95% when the grade of raw ore is ≥2 g/t.

In combination with the construction scale of the project, and according to the mineral processing test results and the actual situation of Xinli concentrator of Sanshandao Gold Mine, the ore processing process and technical indicators of the project are recommended.

The gold ore in the exploration area is located in the same metallogenic belt as the raw ore processed by the existing Xinli concentrator of Sanshandao Gold Mine, with similar ore properties. The grade of Xiling gold ore is slightly higher than that of the raw ore processed by Xinli concentrator, and the grinding fineness recommended by the mineral processing test is consistent with the that used in Xinli concentrator, namely -0.074 mm, accounting for 55%. The separation process of Xinli concentrator is optimized on the basis of one rough sorting, two sweeps and two selections, and the flotation time and number of flotation stages can meet the requirements proposed in the gold ore test recommendation process of Xiling Mine Area. Therefore, it is suitable to adopt the current production process of Xinli concentrator of Sanshandao Gold Mine to deal with the gold ore of Xiling Mine under the comprehensive consideration. Under the conditions of this process, the gold grade of raw ore is 3.95 g/t, the grade of associated element silver is 3.28 g/t, the grade of sulfur is 2.44%, the grade of gold concentrate that can be obtained is 62.00 g/t, the grade of tailings is 0.17 g/t, the recovery rate is 96.00%, the grade of silver and sulfur associated with the concentrate is 39.03 g/t and 38.76% respectively, with the recovery rate of 69.49% and 94.99% respectively. In the late stage, verification tests can be carried out according to the recommended process of current beneficiation test and the flotation process of Xinli concentrator of Sanshandao Gold Mine, and the recovery rate of beneficiation can be further improved by upgrading machinery and equipment and optimizing the beneficiation process flow.

7.6 Technical conditions for exploiting mineral deposit

7.6.1 Hydrogeological conditions

The Xiling Gold Mine is below the lowest local erosion base level, and there is no obvious hydraulic connection between surface water and the direct water-filled aquifer of the deposit, which has little influence on the water filling of the deposit. The direct water-filled aquifer of the deposit is the structural fissure aquifer in the footwall of the bedrock, which has poor water permeability and weak water richness. The F3 fault zone does not pass through the exploration area and is far away from the existence location of the ore body, and thus the influence on the mining of the Xiling Gold Mine is relatively minor.

No northwest-strike F4 fault zone is found in the exploration area, and it is speculated that it does not extend into the Xiling Mine Area or transform into a local small structure, which has little influence on the mining of orebody. Quaternary loose rock pore water, bedrock weathered fissure water, fissure water in the hanging wall structure are the indirect water filling sources of the mineral deposit. Due to the influence of factors such as recharge capacity, permeability and aquifer, it has little impact on the water filling of the mineral deposit. In summary, according to the Code for Hydrogeological and Engineering Geological Exploration in Mining Areas (《礦區水文地質工程地質勘查規範》) (GB/T 12719-2021), it is determined that the deposit is a fissure water-filled deposit with moderate hydrogeological conditions.

7.6.2 Engineering geological conditions

The Xiling Gold Mine is a deep mining mine with a gentle inclination angle of the ore body, the fault structure is developed, and the surrounding wall rocks are relatively stable. There are engineering geological problems such as high pressure and rock bursts in the deep part, and some areas are prone to engineering geological problems such as falling blocks and landslides. In summary, according to the Code for Hydrogeological and Engineering Geological Exploration in Mining Areas（《礦區水文地質工程地質勘查規範》）(GB/T 12719-2021), it is determined that the geological engineering conditions are complex in this exploration area.

7.6.3 Environmental geological conditions

There is no history of strong earthquakes in the exploration area, and the peak acceleration of earthquakes is 0.15 g, the seismic fortification intensity is 7 degrees, and the regional crustal stability is basically stable. The water environment quality is poor in the exploration area. Surface water bodies are mainly seawater, and groundwater is also mostly salt water and brine. The direct water-filled rock layer of the deposit has low water richness, poor supply conditions, and high rock strength. Moreover, the rock does not contain soluble substances, the dredging and drainage of the deposit will not form large gaps or cavities, and geological disasters such as ground subsidence and collapse will not occur. Ore and waste rock do not contain harmful components that are easy to be decomposed. The main environmental problems of the mine are the draining of underground water resources from the mine pit, the construction of industrial sites and tailings ponds which has a certain impact on the geological and landform landscape, and geothermal heat damage in deep part of the mine, etc. In summary, according to the Code for Hydrogeological and Engineering Geological Exploration in Mining Areas (GB/T 12719-2021), it is determined that the geological environment quality is poor in the exploration area.

8 INVESTIGATION ON CURRENT SITUATION OF THE MINING AREA

The prospecting right has not yet been transferred to mining. There are farmlands and villages in the exploration area, with large-scale gold mines already being mined in the surrounding area. The northern part of the exploration area is within the exploration scope of the gold mine in the northern sea area of Sanshandao in Laizhou City, Shandong Province, and the western part is within the scope of the mining right of Sanshandao Gold Mine. According to the Feasibility Study Report, the Xiling Mine Area is the succeeded resource of the Sanshandao Gold Mine.

9 IMPLEMENTATION PROCEDURES FOR VALUATION

According to the Procedure Specification for Valuation of Mining Rights (CMVS11000-2008) and in accordance with the requirements of the valuation client, our firm organized the appraisers and implemented the following valuation procedures in respect of the prospecting right entrusted for valuation:

(1) Commission acceptance stage

On 20 November 2023, through the public selection and recruitment of intermediaries to determine the entrustment matters, our firm accepted the commission from Shandong Gold Mining Co., Ltd.

(2) Due diligence stage

From 21 November 2023 to 22 November 2023, in accordance with the relevant principles and regulations of the valuation, our valuator conducted surveys and property rights appraisals on the prospecting right included in the valuation scope, reviewed relevant materials, consulted, understood, and implemented the basic conditions of the geological exploration and estimation of the resources reserve in the exploration area, and communicated with the client to supplement the information required for the project.

(3) Valuation and estimation stage

From 23 November 2023 to 26 November 2023, the valuation and estimation stage was completed by collating and analyzing the valuation information collected, selecting appropriate valuation methods and choosing valuation parameters in a reasonable manner, with the following specific steps: summarizing and collating the information collected, reviewing the relevant laws and regulations, selecting valuation parameters, and evaluating and estimating the value of the prospecting right entrusted for valuation in accordance with the established valuation procedures and methods, conducting necessary analyses of the estimation results, forming an valuation conclusion, completing the first draft of the valuation report, reviewing the valuation conclusion, and revising and improving the valuation conclusion.

(4) Submission of first draft report stage

From 27 November 2023 to 1 December 2023, the valuator improved the valuation report based on the appraisal work, reviewed the valuation report at three levels within the firm, and submitted the first draft of the valuation report to the valuation client.

(5) Issuance of valuation report stage

10 VALUATION METHOD

According to the "China Mineral Rights Valuation Standards", there are three types of valuation methods for mineral right valuation, namely, the income approach, the cost approach and the market approach. In accordance with the applicable scope and prerequisites of various valuation methods under the "China Mineral Rights Valuation Standards", the valuation methods shall be appropriately selected in light of the characteristics of the valuation target and scope as well as the valuation information collection and other relevant conditions, in order to form a valuation conclusion. Where the valuation information conditions are available and it is appropriate to adopt different valuation methods, two or more valuation methods shall be adopted for the valuation, and valuation conclusions shall be reasonably formed through comparative analysis; where it is not possible to adopt two or more valuation methods for the valuation due to applicability of the methods, operational constraints, etc., the valuation can be carried out by adopting a single method.

Due to the geographic and geological specificities of the exploration right, the exploration work has submitted a large deposit resource, and no cases of the same or similar transactions have been collected, and therefore it is not possible to adopt the market comparative adjustment method based on the transaction cases on the market.

The cost valuation method of mineral rights includes the exploration cost-utility method and the geological element ranking method. The cost valuation method is suitable for exploration right with lower stages of geological work. For exploration right that has a high degree of geological exploration and has been submitted and evaluated with development prospects, the cost valuation method is no longer suitable. This entrusted valuation project is an exploration right valuation in the advanced exploration stage, whose reserves have been filed and relevant designs have been prepared. Therefore, the exploration cost-utility method and the geological element ranking method are not applicable for the valuation.

Income valuation method includes the income and equity method and the discounted cash flow method. The production scale of the mine is large, and the mine is classified as large mine in terms of the size of its resource reserves, and its service life is greater than 5 years, therefore, it does not qualify for the income and equity method of valuation. Shandong Gold Geological Mine Exploration Co., Ltd. prepared the "Exploration Report on the Xiling Gold Mine in the Sanshandao Mine Area of Laizhou City, Shandong Province" in May 2023; China ENFI Engineering Corporation prepared the "Feasibility Study on the Exploration of the Xiling Gold Mine in the Sanshandao Mine Area of Laizhou City, Shandong Province"; the main technical and economic parameters designed for resource development and utilization are available for selection and utilization in the valuation, and the conditions for selection of various valuation parameters are basically in place. The exploration right is of a certain scale, has independent measurable profitability, and its future revenue and risks borne can be measured in monetary terms. As future revenue can be predicted, the economic and technical parameters designed in the Feasibility Study Report can basically satisfy the requirements for valuation using the discounted cash

flow method. According to the "Mineral Rights Valuation Management Measures (Trial)" and the "China Mineral Rights Valuation Standards", it is determined that this valuation adopts the discounted cash flow method. The calculation formula is as follows[Note]:

$$p=\sum_{t=1}^{n}\left[(CI-CO)_t\right]\cdot\frac{1}{(1+i)^t}$$

Where:

P	—	appraised value of mineral rights;
CI	—	annual cash inflow;
CO	—	annual cash outflow;
$(CI-CO)_t$	—	annual net cash flow;
i	—	discount rate;
t	—	year number (t = 1,2,3,... ,n);
n	—	evaluated life.

11 SELECTION PRINCIPLES FOR TECHNICAL AND ECONOMIC INDICATORS AND PARAMETERS OF VALUATION

In accordance with the relevant provisions of the China Mineral Rights Valuation Standards, the main technical indicators for the valuation of this project and the selection of relevant valuation parameters are mainly based on the Exploration Report on the Xiling Gold Mine in the Sanshandao Mine Area of Laizhou City, Shandong Province (hereinafter referred to as the "Exploration Report") prepared by Shandong Gold Geological Mine Exploration Co., Ltd. in May 2023 and the Feasibility Study on the Exploration of the Xiling Gold Mine in the Sanshandao Mine Area of Laizhou City, Shandong Province (hereinafter referred to as the ''Feasibility Study Report'') prepared by China ENFI Engineering Corporation.

Note: The annual cash inflow items in this project are: sales revenue, recovery of net residual value of fixed assets, and recovery of working capital. The annual cash outflow items include: investment in fixed assets, investment in intangible assets, investment in other assets, investment in upgrading and transformation, working capital, operating costs, sales tax and surcharge and enterprise income tax.

(1) Review of reserve estimation information

The Exploration Report was prepared by Shandong Gold Geological Mine Exploration Co., Ltd. in May 2023, which made full use of the results of the preliminary geological work on the basis of previous geological surveys, and fully collected geological mining information, with sufficient basis. It basically identified geological features such as stratigraphy, tectonics and magmatism in the area, and basically determined the morphology, occurrence, scale and distribution of the ore body, which met the requirements of geological control degree. The technical performance of ore processing, the technical conditions of deposit mining and the changes after mining were studied and evaluated, and thus forming sufficient conclusions. The resources reserve was estimated by the geological block method, and the estimation method was correctly selected, the parameters of estimation and the classification of the resources reserve were comparable, and the estimation results were basically reliable. Therefore, such report is the basis of this valuation.

(2) Review of feasibility study report information

The Feasibility Study Report on which this valuation is based was submitted in May 2023 by China ENFI Engineering Corporation, which has an engineering design qualification certificate (comprehensive Grade A) and an engineering consulting unit Grade A credit certificate. The report has been designed and prepared in accordance with the existence characteristics of the ore body and the technical conditions of deposit mining, taking the local productivity level as the basic yardstick and on the principle of reasonable and effective utilization of resources under the economic and technical conditions at that time, and the chapters and sections compiled in the report are comprehensive and the contents are basically complete. The method of determining the designed utilization and mining reserves and the designed production scale are reasonable, and the mining plan meets the design specifications. The report has been reviewed and approved by the experts engaged under the arrangement of Industrial Investment Group (產投集團), a subsidiary of Shandong Gold Group, on 22 June 2022 with the "Expert Review Opinions on the Feasibility Study Report on the Xiling Village Gold Mine Exploration in Laizhou City, Shandong Province". After analysis, the evaluator believed that the technical indicators for mining production designed in this plan are reasonable, but some parameters are inconsistent. The preparation unit has issued "Relevant Explanations" to correct them. The Feasibility Study Report and "Relevant Explanations" can be used as the basis for selecting valuation parameters.

12 MAIN TECHNICAL PARAMETERS

The values of parameters are described below:

12.1 Retained resources

(1) Filing of retained resources

According to the Exploration Report and its review opinions, as of 31 May 2023, the base date of reserve estimation for the exploration report, the retained resources of the prospecting right of Xiling Village Gold Mine are as follows:

The cumulative amount of detected gold ore is 147,278,666 t, and the amount of gold metal is 592,186 kg, with an average grade of 4.02 g/t. Included in the low-grade ore that can be mined on a consolidated basis, the amount of gold ore is 3,022,379 t, and the amount of gold metal is 6,107 kg, with an average grade of 2.02 g/t. Where:

Include in the measured resources, the amount of gold ore is 23,509,618 t, accounting for 15.96% of the total amount of gold ore of the deposit, and the amount of gold metal is 100,666 kg, accounting for 17.00% of the total amount of gold metal of the deposit, with an average grade of 4.28 g/t (in terms of the low-grade ore that can be mined on a consolidated basis, the amount of gold ore is 52,917 t, and the amount of gold metal is 86 kg, with an average grade of 1.63 g/t);

Include in the indicated resources, the amount of gold ore is 61,836,379 t, accounting for 41.99% of the total amount of gold ore of the deposit, and the amount of gold metal is 256,111 kg, accounting for 43.25% of the total amount of gold metal of the deposit, with an average grade of 4.14 g/t (in terms of the low-grade ore that can be mined on a consolidated basis, the amount of gold ore is 946,553 t, and the amount of gold metal is 2,079 kg, with an average grade of 2.20 g/t);

Include in the inferred resources, the amount of gold ore is 61,932,669 t, accounting for 42.05% of the total amount of gold ore of the deposit, and the amount of gold metal is 235,409 kg, accounting for 39.75% of the total amount of gold metal of the deposit, with an average grade of 3.80 g/t (in terms of the low-grade ore that can be mined on a consolidated basis, the amount of gold ore is 2,022,909 t, and the amount of gold metal is 3,942 kg, with an average grade of 1.95 g/t).

There are also 1.1122 million tonnes of gold ore and 4,393 kg of gold metal, with an average Au grade of 3.95 g/t, which are difficult to be utilized (118 ore bodies that cannot be used temporarily).

The cumulative amount of detected associated mineral resources are as follows: associated silver: the amount of inferred ore is 144,993,673 t, and the amount of silver metal is 590,850 kg, with an average grade of 4.08 g/t; associated sulfur: included in the inferred resources, the amount of ore is 144,993,673 t, the amount of pure sulfur is 3,617,079 t, with an average grade of 2.49%, and the amount of equivalent standard sulfur (at 35%) is 10,334,512 t.

(2) Retained resources on the Valuation Reference Date

As of the Valuation Reference Date, since this project was in the prospecting right stage and had not yet started construction, its reserves had not been used, and there had been no increase or decrease in reserves from the reference date of reserve estimation in the exploration report of 31 May 2023 up to the Valuation Reference Date, the above filing resources are the retained resource reserves on the Valuation Reference Date.

12.2 Resources used in the valuation

According to the Guiding Opinions on Mineral Resource Reserves Utilization for Mineral Rights Valuation (《礦業權評估利用礦產資源儲量指導意見》) (CMVS30300-2010), the calculation of resource reserves used in the valuation takes into account all economic basic reserves; the credibility coefficient of the indicated inherent economic resources (331) and (332) is 1.0; the credibility coefficient of inferred inherent economic resources (333) can be determined by referring to the provisions of the mine design documents or design specifications; for those that are not utilized in the mine design documents or are not specified in the design specifications, the credibility coefficient shall be in the range of 0.5~0.8.

In this valuation, the resource reserves used in the valuation were estimated based on the Feasibility Study Report and its "Relevant Explanations" submitted by China ENFI and with reference to the above rules. Based on the exploration reports and drilling EXCEL data and files provided by the owners, China ENFI used DATAMINE® three-dimensional mining software to establish a geological model of the deposit. The resource estimation range is consistent with the exploration report, with a re-estimated amount of measured + indicated + inferred industrial mine gold ore of 137,654,166 tonnes, an amount of gold metal of 577,897 kg, and an average grade of 4.20 g/t after verification by the evaluator; the re-estimated amount of measured + indicated + inferred gold ore decreased by 9,624,000 tonnes, and the amount of Au metal decreased by 14,289 kg.

(1) Resources not designed for utilization

According to the Feasibility Study Report, silver and sulfur components are mainly enriched in gold concentrate, but they do not meet the pricing standards, and are insufficient to make their recovery profitable (page 329 of Feasibility Study Report). The associated beneficial silver and sulfur components will not be evaluated for utilization in this valuation; the 1.1122 million tonnes of gold ore that is difficult to be utilized (118 ore bodies that cannot be used temporarily) has not been designed for utilization and will not be utilized in this valuation (refer to section "4.8.4" of the Feasibility Study Report); in addition, as for the decrease estimated through remodeling by China ENFI in the filed amount of gold ore of 9,624,000 tonnes and the amount of Au metal of 14,289 kg, it is regarded as resources not designed for utilization in this valuation and is not included in the resources used in the valuation as its re-estimated results have not been reviewed and filed.

(2) Resource reserves designed for utilization

Referring to the Feasibility Study Report and "Relevant Explanations", after deducting the resources not designed for utilization from the reviewed and filed resources, the resources designed for utilization (industrial mines) include an amount of gold ore of 137,654,166 tonnes and an amount of gold metal of 577,897 kg, with an average grade of 4.20 g/t; details are as follows:

Type of ore	Resource level	Resources (t)	Au (g/t)	Au (kg)
Industrial mine	Measured	23,419,176	4.39	102,923
Industrial mine	Indicated	60,411,030	4.28	258,542
Industrial mine	Inferred	53,823,960	4.02	216,432
Total		137,654,166	4.20	577,897

(3) Resource reserves used in the valuation

According to the Feasibility Study Report, the utilization coefficients of resource/reserve in the mining area are as follows: full utilization of measured and indicated resources, and the inferred resources are designed for utilization according to the credibility coefficient of 0.7. According to the relevant provisions on the estimation of the resource reserves used in the valuation and referring to the design of this valuation, the credibility coefficient of measured resources and indicated resources is taken as 1.0, and the credibility coefficient of inferred resources is taken as 0.7.

The resource reserve used in the valuation includes an amount of gold ore of 121,506,978.00 tonnes and an amount of gold metal of 512,967.40 kg, with an average grade of 4.22 g/t.

12.3 Mining and processing proposals

(1) Mining proposal

The inclination angle of the ore body in the Xiling Mine Area is relatively gentle. The main ore body is divided into several ore bodies, with sandwiched rocks of different thicknesses in between, and there is an F1 fault on the hanging wall of the ore body, making the mining conditions complex. It is difficult to ensure the safety of the hanging wall roof by using sub level stopping with fill, with certain risks existing. The feasibility study design recommends that after obtaining certain rock mechanics data, a special study should be conducted on the applicability of the sub level stopping with fill. During the production period, a medium-deep hole mining method test should be conducted, which is not included in the calculation of the mining method, and the medium-deep hole mining equipment will be equipped separately after research and confirmation.

According to the experience of deep well mining abroad, when mining deeper ore bodies, rock drilling tunnels are often damaged due to severe ground pressure, and there are certain hidden safety risks when the mining span is large. Therefore, when mining deeper ore bodies, especially ore bodies with a depth of more than 1,500 m, reasonable stope parameters should be researched and determined, and the support of stopes and tunnels should be strengthened to ensure the safety of mining.

In view of the above factors, according to the existing conditions of the ore body in Xiling Mine Area, combined with the current mining methods used in mines, it is recommended to adopt the upward flatback - cut and fill mining, and divide into different mining methods according to the thickness of the ore body and the stability of wall rocks.

(1) The ore body with stable ore rocks and a horizontal thickness of less than 10 m is mined using the upward flatback - cut and fill along strike method.

(2) The ore body with stable ore rock and a horizontal thickness of more than 10 m but less than 20 m is mined using the point-pillar upper flatback - cut and fill method.

(3) The ore body with stable ore rock and a horizontal thickness of more than 20 m is mined using the upward flatback - cut and fill along vertical strike method.

(4) When the stability of the ore rock is poor, the upward flatback - cut and drift-and-fill method is used for mining.

(5) When the ore rock is broken and has poor stability, the downward flatback - cut and drift-and-fill method is used for mining.

Calculated based on the amount of recovered ores, the proportions of five mining methods are 20% for the upward flatback - cut and fill along strike method, 20% for the point-pillar upper flatback - cut and fill method, 50% for the upward flatback - cut and fill along vertical strike method, 5% for the upward flatback - cut and drift-and-fill mining method, and 5% for the downward flatback - cut and drift-and-fill method.

(2) Processing proposal

The gold ore in the Xiling Village Mine Area is located in the same metallogenic zone as the raw ore selected by the existing Xinli concentrator in Sanshandao Gold Mine, and their ore properties are similar. The grade of gold ore in Xiling Village Mine Area is slightly higher than that of the raw ore selected from Xinli concentrator, and the grinding fineness recommended by the processing test and the grinding fineness used in Xinli concentrator are both -0.074 mm, accounting for 55%. The separation process of Xinli concentrator is optimized on the basis of the original one roughing, two scavenging, and two cleaning, and the flotation time and the number of flotation sections could meet the requirements proposed in the recommended process for gold ore testing in Xiling Village Mine Area. Therefore, the current production process of the Xinli Concentrator in Sanshandao Gold Mine is adopted to treat the gold ore in the Xiling Village Mine Area after a comprehensive consideration.

12.4 Product solution

According to the design of the Feasibility Study Report, the product solution of the mine is gold concentrate.

According to the design of the Feasibility Study Report, the gold concentrate produced is delivered to the smelter for smelting, and the remaining portion after deducting the gold metal required for the gold return rate is returned to the mine.

Therefore, based on the above, it is determined in this valuation that the product solution is finished gold (trading variety grade is Au9995 (secondary gold ingot, containing gold ≥99.95%, <99.99%, i.e., national standard No. 2 gold)).

12.5 Technical indicators

According to the design of the Feasibility Study Report, the mining recovery rate is 90%, the dilution rate is 8%, the recovery rate of gold ore processing is 96% and the outsourced processing and smelting gold return rate is 97.5%.

12.6 Recoverable reserves used in the valuation

Recoverable reserve refers to the reserve that can be recovered after deducting various losses from the resource reserve used in the valuation. The recoverable reserve used in the valuation is calculated according to the following formula:

Recoverable reserve = resource reserve used in the valuation - design loss - mining loss

(1) Design loss (taking into account the credibility coefficient adjustment)

According to the Feasibility Study Report, the ore bodies in the Xiling Mine Area are mainly distributed above the middle section of -2,715 m, therefore, the designed mining range covers ore body above the -2,715 m level in the Xiling Mine Area. The 25 m ore body adjacent to the mining rights in the northern sea area will be reserved as a security ore pillar, and part of corner ore bodies is considered to be deducted. The loss in the design includes an amount of gold ore of 2,800,467.90 tonnes and an amount of Au metal of 14,384.63 kg.

In addition, for the amount of re-estimated low-grade gold ore of 3,663,664.20 tonnes and an amount of Au metal of 5,683.91 kg in the Feasibility Study Report, the design has not included them in the estimation of recoverable reserve, and they are estimated based on the design loss this time.

As for the design loss, it is estimated by adjusting the credibility coefficient with the same standard as the resource reserve used in the valuation.

(2) Mining loss

According to the design of the Feasibility Study Report, the mining recovery rate is 90%, and the mining loss rate is 10%.

The estimated mining loss includes an amount of gold ore of 11,504,284.59 tonnes and an amount of Au metal of 49,289.89 kg.

(3) Recoverable reserve used in the valuation

Based on the above, the recoverable reserve used in the valuation includes an amount of gold ore of 103,538,558.25 tonnes and an amount of Au metal of 443,978.80 kg. The recoverable reserve based on the phased mining plan is as follows:

Phased mining plan for the recoverable reserve used in the valuation

Resource reserves used in the valuation of the upper part of the first phase	Measured	17,750,460.60	82,313.37	4.64
	Indicated	19,246,389.30	92,172.24	4.79
	Inferred	4,771,236.33	19,138.47	4.01
	Total	41,768,086.23	193,624.08	4.64
Resource reserves used in the valuation of the lower part of the first phase	Measured	1,884,083.40	7,405.01	3.93
	Indicated	25,386,936.30	105,556.28	4.16
	Inferred	7,583,461.83	32,707.20	4.31
	Total	34,854,481.53	145,668.50	4.18
Resource reserves used in the valuation of the second phase	Measured	0.00	0.00	
	Indicated	6,721,622.10	24,357.84	3.62
	Inferred	20,194,368.39	80,328.37	3.98
	Total	26,915,990.49	104,686.22	3.89
	Total	**103,538,558.25**	**443,978.80**	**4.29**

12.7 Production scale

According to the conditions of mine resource and available resources, taking into account the mine service life and resources as well as economic rationality, in the principle of matching mine production capacity, mine service life and resource scale, the designed production scale set out in the Feasibility Study Report is 3.3000 million tonnes/year. According to the client requirements and the Feasibility Study Report, the mine production capacity in this valuation is valued at 3.3000 million tonnes/year.

12.8 Mine service life

(1) The reasonable service life of mine is calculated according to the following formula

$$T = \frac{Q}{A \times (1-\rho)}$$

Where:

T — reasonable service life of mine;
A — mine production scale;
Q — recoverable reserves;
ρ — ore dilution rate.

(2) Parameter selection in the formula and calculation results

According to the design of the Feasibility Study Report, the infrastructure construction period is 7 years, and the production capacity in the first mining stage, mid stage and late stage is 3.3000 million t/a. According to the above calculation, the reasonable service life of mine is 13.76 years in the upper part of the first phase, the service life of mine is 11.48 years in the lower part of the first phase, the service life of mine is 8.87 years in the second phase, and the total production and service life is 34.10 years. According to the Feasibility Study Report, there is a reduction in production at the end of the production period, and the service life of mine is 36 years according to the production schedule (all production reduction periods are in the second phase), therefore, the evaluated life is 43 years.

13 MAIN ECONOMIC PARAMETERS

13.1 Investment in fixed assets

According to the "China Mineral Rights Valuation Standards", the investment in fixed assets could be determined based on the analysis and estimation of the exploitation and utilization scheme of mineral resources, (anticipated) feasibility study report or mine design and other information. It could also be determined based on the analysis of carrying amount presented in the balance sheet and breakdown of fixed assets of the enterprise on the Valuation Reference Date. As the mine is a proposed mine, this valuation is determined by the asset appraised value and the design of Feasibility Study Report.

According to the Feasibility Study Report, the investment in fixed assets designed is shown in Table 13-1 below.

Table 13-1 Statement of Investment in Fixed Assets Unit: RMB0'000

		Initial investment of feasibility study design				
No.	**Item**	**Construction project**	**Equipment purchase**	**Installation engineering**	**Other fees**	**Total value**
I	**Geological Engineering**	6,643.00	146.00	0.00	0.00	**6,789.00**
1	Supplementary Prospecting	5,694.00				**5,694.00**
2	Infrastructure prospecting	949.00				**949.00**
3	Geological equipment		146.00			**146.00**
II	**Xiling Village Mine Area**	205,493.00	62,937.00	15,837.00		**284,267.00**
1	Tunnel development project	202,635.00				**202,635.00**
2	Mining equipment		62,937.00	15,837.00		**78,774.00**
3	Pit transportation system	912.00				**912.00**
4	Auxiliary shaft tower and equipment	1,630.00				**1,630.00**
5	Auxiliary shaft hot air machine room	316.00				**316.00**
III	**Tailings system**	145.00	399.00	3,561.00		**4,105.00**
IV	**Auxiliary production system**	2,584.00	11,436.00	5,913.00		**19,933.00**
V	**Other fees**			225.00	24,252.00	**24,477.00**
1	Land cost				848.00	**848.00**
2	Mine tunnel maintenance cost				2,026.00	**2,026.00**
3	Other fees			225.00	21,378.00	**21,603.00**
VI	**Project preparation fees**				41,286.00	**41,286.00**
VII	**Exploration cost invested in the early stage**				53,339.00	**53,339.00**
VIII	**Interest during construction period**				114,318.00	**114,318.00**
IX	**Initial liquidity**				8,398.00	**8,398.00**
X	**Certificate transfer fee**				360,000.00	**360,000.00**
	Total	**214,865.00**	**74,918.00**	**25,536.00**	**601,593.00**	**916,912.00**

Note: Referring to the Feasibility Study Report, the geological engineering is designed to meet the upgrading requirements of the geological resources required for the storage mine amounts required for the construction and operation of the mine, and improve the control degree of the ore body within the scope of production development and mining standards. The actual nature of the geological engineering increased due to the demand for mine construction can be classified as other engineering construction costs.

According to the Feasibility Study Report, an additional investment of RMB537.1000 million is required in the mid stage of mining (after 15 years), and an additional investment of RMB1,064.9200 million is required in the late stage of mining (after 27 years). The additional investment designed is shown in Table 13-2.

Table 13-2 Additional Investment Designed Unit: RMB0'000

Item	Construction project	Equipment purchase	Installation project	Total value
	Additional investment of feasibility study design (15th year of production period)			
Tunnel development project	35,022.00	15,002.00	3,686.00	53,710.00
	Additional investment of feasibility study design (27th year of production period)			
Tunnel development project	82,899.00	16,973.00	6,620.00	106,492.00

According to the Feasibility Study Report, this project designs geological resources within the Xiling Mine Area of the Sanshandao Gold Mine. The design of the Xiling Mine Area adopts a relay hoisting plan for Sanshandao auxiliary shaft + Xiling blind main shaft + Xinli mixed shaft + Xinli main shaft + Xishan main shaft. Mining method is the upward flatback - cut and fill mining. Ore is processed at Xinli concentrator. The tailings pond is Cangshang open pit tailings pond in operation. The existing living and auxiliary facilities of Sanshandao Gold Mine are utilized, with some additional living and auxiliary facilities.

According to the design of Feasibility Study Report, the original assets of RMB1,468.8900 million are utilized, allocated and estimated by classification according to the assets breakdown designed in the Feasibility Study Report and with reference to the breakdown of fixed assets and intangible assets of Sanshandao as well as based on the production scale, as detailed in Table 13-3.

Table 13-3 Breakdown of Original Assets Used in the Valuation Unit: RMB0'000

Original fixed assets used in the valuation	Net value *(RMB0'000)*
Buildings	30,491.15
Machine	37,216.18
Tunnel	69,643.11
Tailings pond	7,231.50
Subtotal	144,581.93
Land	2,307.07
Total	146,889.00

According to the "China Mineral Rights Valuation Standards", the investment in fixed assets used in the valuation does not include project preparation cost, initial liquidity, land acquisition cost (included in intangible assets), and liquidity (listed separately and recalculated). The geological engineering and other cost in the valuation are allocated to specific project categories (tunnel project, building construction, machinery equipment) according to their investment amounts. The fixed assets used in the valuation are shown in Table 13-4.

Table 13-4 Statement of Assets Used in the Valuation

			Classified by valuation requirements			
No.	**Item**	**Net value of original fixed assets designed for utilization**	**Investment of feasibility study design**	**Initial investment after allocation of other expenses**	**Additional investment in the mid stage of feasibility study design**	**Additional investment in the late stage of feasibility study design**
I	Houses and buildings	30,491.15	5,587.00	6,093.73	0.00	0.00
II	Machinery equipment	37,216.18	100,308.00	109,405.80	18,688.00	23,593.00
III	Tunnel project	69,643.11	204,661.00	223,223.47	35,022.00	82,899.00
IV	Other fees		21,378.00			
V	Tailings pond	7,231.50				
VI	Intangible assets	2,307.07	848.00			
VII	**Total assets**	**146,889.01**	**332,782.00**	**338,723.00**	**53,710.00**	**106,492.00**

According to the Feasibility Study Report, the original fixed asset used in the valuation are invested in the 7th year of the infrastructure construction period. The initial investment used in the valuation is invested annually during the infrastructure construction period according to the designed proportion in feasibility study, with mid-stage additional investment will be invested in accordance with the proportion of feasibility study design from 2042 to 2044 and late-stage additional investment will be invested in accordance with the proportion of feasibility study design from 2052 to 2056.

13.2 Investment in intangible assets

According to the "Guiding Opinions on Determination of Mineral Rights Valuation Parameters", any corporate income is the return on investment of various capital elements. For mining enterprises, investment capital elements mainly include fixed assets and other long-term assets, land and mineral rights. When estimating the returns of a certain capital element and discounting its returns as asset value, it is necessary to deduct the input cost and returns of other elements or consider them through income sharing, discount rates, etc. Therefore, when evaluating mineral rights through income approach, the input cost of land and its returns need to be deducted. Land, as one of the capital elements of an enterprise, can be considered in three ways depending on the different utilization methods: land use (assets), land lease (expenses), and land compensation (expenses and assets).

According to the Feasibility Study Report, the land use fees are RMB8.4800 million, and the original intangible assets used in the valuation are RMB23.0707 million, with a total investment of RMB31.5507 million in intangible assets.

This valuation determines that the intangible assets are RMB31.5507 million. The original intangible assets are invested at the point of time of the Valuation Reference Date according to the Feasibility Study Report, while the new intangible assets are invested in the 1st year of the infrastructure construction period according to the feasibility study design.

13.3 Liquidity

Liquidity is the working capital required by an enterprise to maintain normal production and operations and is a necessary condition for the enterprise to carry out production and business activities. According to the "Guiding Opinions on Determination of Mineral Rights Valuation Parameters", the expanded indicator estimation method is used to estimate the liquidity. The value range for precious metal mines is 30%~35% of the sales revenue fund ratio, and the value for this project is 30% of the sales revenue fund ratio. Therefore:

Liquidity = sales revenue × sales revenue fund ratio
= 148,363.73 (RMB0'000)

The liquidity is outflowed in the first year of production. At the end of the valuation period, all of the liquidity will be recovered.

13.4 Recovery of residual value of fixed assets, renovation and reformation funds, equipment and real estate input VAT

According to the "China Mineral Rights Valuation Standards", the residual value of the recovered fixed assets shall be calculated by multiplying the original value of fixed assets by the residual value ratio of fixed assets. Houses and buildings, machinery equipment and others adopt the principle of fixed value to consider their renewed capital investment, that is, to invest an equal initial investment at the next point of time (next year or next month) after depreciation is provided. The depreciation of fixed assets is provided for tunnel project based on the service life of mine, with no residual value.

Due to the fact that gold mine is exempt from value-added tax, input tax will not be deducted.

According to the relevant provisions of the "Regulations on the Implementation of the Enterprise Income Tax Law of the People's Republic of China (《中華人民共和國企業所得税法實施條例》)" (2008), the depreciation period of houses and buildings shall not be less than 20 years; the depreciation period of machinery equipment shall not be less than 10 years; the depreciation period of instruments, tools and furniture related to production and business activities shall not be less than 5 years. According to the "Notice of State Administration of Taxation on Clarifying the Implementation Time for Enterprises to Adjust the Residual Value Ratio of Fixed Assets (《國家税務總局關於明確企業調整固定資產殘值比例執行時間的通知》) (Guo Shui Han [2005] No. 883 on 14 September 2005), the residual value ratio of fixed assets is uniformly determined to be 5%. The residual value ratio of houses and buildings, machinery equipment in this project valuation is taken as 5%.

In accordance with the "Guiding Opinions on Determination of Mineral Rights Valuation Parameters" and the regulations of relevant departments, combined with the actual production and the service life of mine, this valuation determines the depreciation life of houses and buildings is taken as 40 years, and depreciation is provided on a straight-line basis, with a residual value ratio taken as 5%. At the end of the valuation period, the residual value of the original houses and buildings used in the valuation will be recovered by RMB44.2138 million. At the end of the valuation period, the residual value of the investment in houses and buildings of the upper part of the first phase will be recovered by RMB7.9421 million.

In accordance with the "Guiding Opinions on Determination of Mineral Rights Valuation Parameters" and the regulations of relevant departments, this valuation determines the depreciation life of machinery equipment is taken as 15 years of mine service life, and depreciation is provided on a straight-line basis, with a residual value ratio taken as 5%. After calculation, RMB372.1618 million will be invested in the renovation and reformation in 2045 and 2060 by using original investment in machinery equipment, and the residual value of RMB18.6081 million will be recovered in the same year. At the end of the valuation period, the residual value of RMB230.7420 million will be recovered. RMB1,094.0580 million will be invested in the renovation and reformation in 2045 and 2060 by using investment in machinery equipment of the upper part of the first phase, and the residual value of RMB54.7029 million will be recovered in the same year. At the end of the valuation calculation period, the residual value of RMB678.3172 million will be recovered. In the first phase, an additional investment in equipment of the lower part of RMB235.9300 million will be invested in the renovation and reformation in 2062, and the residual value of RMB11.7965 million will be recovered. At the end of the valuation calculation period, the residual value of RMB163.7596 million will be recovered. An additional investment in machinery equipment will be made in the second phase, and the residual value of RMB103.9903 million will be recovered at the end of the valuation period.

The investment in tunnel project does not need to be updated and fully depreciated during the valuation calculation period, with no residual value.

According to the Feasibility Study Report, when the annual ore processing is 4.95 million tonnes, the annual effective storage capacity required for the tailings pond is 1.647 million m^3, that is, approximately 3 t of ore requires 1 m^3 storage capacity. The existing tailings storage capacity of the Sanshandao Mining Area is 27 million m^3. During the infrastructure construction period, the Sanshandao Mining Area is in normal production with a production capacity of 2.64 million t/a, 18.99 years of remaining storage capacity is available after the infrastructure construction period. This valuation is calculated based on the availability of 18.5 years of tailings storage during the production period. The tailings pond will be updated when its service life is expired. The updated tailings pond will be depreciated according to the remaining life of mine, with no residual value.

13.5 Sales revenue[Note]

13.5.1 Calculation formula of sales revenue

Sales revenue = production × sales price

13.5.2 Product output

The indicators of gold grade, ore processing recovery rate and gold return rate determined in the valuation of this project are based on the Feasibility Study Report. (Taking 2031 as an example) The feed grade of ore is 4.33 g/t, the ore processing recovery rate is 96.08%, and the gold return rate is 97.5%.

Finished gold production = raw ore production × feed grade of ore × ore processing recovery rate × gold return rate.

Normal production year (taking 2031 as an example):

3,300,000 t × 4.33 g/t × 96.08% × 97.5% ÷ 1,000 = 13,386.00 (kg).

13.5.3 Determination of product sales price

The price of the product used for valuation is determined based on the "Valuation Methods and Parameters for the Income Channels of Mineral Rights Valuation". The value basis of general mining sales price generally includes development and utilization plans of mineral resource or feasibility study report or preliminary design information for mine, corporate accounting statement information; price certificates collected by the market; price information issued and published by the state (including relevant journals).

No matter how the sales price is determined, the result is regarded as a judgment on the future product sales price, but cannot be used as a guarantee of future product price realization.

Note: After designing sensitivity analysis for assumptions such as revenues, costs, overheads and capital inputs, the revenue factor has a greater impact on the assessed value. Details of sensitivity analyses are shown in the table below.

	Factors of change		
Factors	**% of change**	**% of valuation change**	**Flexibility**
Change of revenue	10%	18.93%	1.89
	-10%	-18.93%	1.89
Production cost	10%	-4.67%	-0.47
	-10%	4.67%	-0.47
Management fee	10%	-1.94%	-0.19
	-10%	1.94%	-0.19
Investment contribution	10%	-3.19%	-0.32
	-10%	3.19%	-0.32

According to the "China Mineral Rights Valuation Standards", the local price standard is generally used to determine the product price for valuation, which can be determined by the average price of the three years prior to the Valuation Reference Date or after regression analysis; for large and medium-sized mines with significant fluctuations in product prices and long service life, the average price within the five years prior to the Valuation Reference Date can be assessed to determine the product price for valuation; for small mines with short service life, the average price in the current year on the Valuation Reference Date can be used to determine the product price for valuation.

Gold is a commodity but also has monetary attributes, and its price is greatly affected by the US dollar and unexpected events. The gold mining scale in the mining area is a large mine with a long service life. In view of the significant fluctuations in gold mineral products, combined with the recent international situation, gold price is taken as the five-year average price. The valuator believes that the average price in the five years prior to the Valuation Reference Date could basically reflect the price trend of gold products in the future.

This project takes the price of No. 2 gold (gold content ≥99.95% and <99.99%) announced by the Shanghai Gold Exchange in the whole five years prior to the Valuation Reference Date as the basis for the sales price selected in the valuation. The gold prices collected by the valuator on the Shanghai Gold Exchange in the past five years are as follows:

Table 13-5 Gold Price Statistics on Shanghai Gold Exchange in the Past 5 Years Unit: g/t

Price	2018	2019	2020	2021	2022	2023
January		283.99	348.22	387.28	371.42	414.36
February		288.51	360.73	376.56	384.73	415.14
March		283.76	355.27	362.7	398.71	422.55
April		281.21	375.21	370.09	399.25	444.07
May		286.23	388.59	384.48	399.72	451.76
June		304.74	391.99	378.64	396.78	450.99
July		315.69	408.57	376.64	376.87	452.06
August		340.71	426.8	371.51	388.55	455.11
September		347.35	411.13	370.57	387.2	470.35
October		341.34	402.92	368.73	391.45	456.94
November	273.47	338.09	389.11	374.08	401.37	
December	278.65	335.25	386.54	368.3	405.27	
Average price			376.14			

The gold price for this valuation is determined with reference to the prices published by the Shanghai Gold Exchange in the past five years, and the average price of Au is calculated at RMB376.14/g.

According to the "Purchase Contract of Gold Concentrate Gold and Gold Concentrate Silver" of Sanshandao Gold Mine of Shandong Gold Mining (Laizhou) Co., Ltd., "the incoming material is taking a grade of 55.56 g/t as the benchmark grade, and the purchase volume and unit price of gold are calculated based on the cumulative annual average price of spot gold (Au9995 and Au9999) on the Shanghai Gold Exchange minus RMB6.69/g and the principle of refund for any overpayment or a supplemental payment for any deficiency." When the gold concentrate grade is 60.01~70 g/t, the gold return rate is 97.5%.

According to the Feasibility Study Report, the designed grade of gold concentrate is 62 g/t. Based on the feasibility study and reference to the "Purchase Contract of Gold Concentrate Gold and Gold Concentrate Silver" of Sanshandao Gold Mine of Shandong Gold Mining (Laizhou) Co., Ltd., this valuation determines that the sales price of gold is RMB369.45/g, with a gold return rate of 97.5%.

The valuation selected a sales price based on the feasibility study and the actual sales contract of the Sanshandao Gold Mine of Shandong Gold Mining (Laizhou) Co., Ltd., which is basically in line with the current actual price level and future price trend.

13.5.4 Sales revenue

Taking 2031 as an example, the first phase sales revenue in the normal years is as follows:

Annual sales revenue	=	13,386.00 kg × 1,000 × RMB369.45/g ÷ 10,000
	≈	494,545.77 (RMB0'000/year);

13.6 Cost expense

Total cost expense refers to all the costs and expenses incurred by the project to produce and sell products in a certain period (usually one year). The cost expense parameters for this valuation of mine production and processing are based on the design of Feasibility Study Report, and determined in accordance with the relevant provisions of prospecting rights valuation and the information held by the appraisers.

According to the provisions of the "China Mineral Rights Valuation Standards" and the "Guiding Opinions on Determination of Mineral Rights Valuation Parameters", the total cost expense of this valuation is estimated by the "cost element method", depreciation fee and financial expenses are calculated according to the "Guiding Opinions on Determination of Mineral Rights Valuation Parameters in PRC". The mine production safety fee shall be determined in accordance with relevant national documents.

The process of determining production costs and expenses is as follows (taking 2031 as an example to describe):

(1) Direct materials: According to the design of the Feasibility Study Report, the unit cost of direct materials is RMB71.88/t. This valuation is based on the data of the Feasibility Study Report. After calculation, the total annual cost expense of materials in a normal year is RMB237.2100 million. This value is taken for the valuation of direct materials costs in this project.

(2) Direct fuel: According to the design of the Feasibility Study Report, the unit cost of direct fuel is RMB3.22/t. This valuation is based on the data of the Feasibility Study Report. After calculation, in a normal year, the total cost of direct fuel is RMB10.61 million. This value is taken for the valuation of direct fuel in this project.

(3) Direct power: According to the design of the Feasibility Study Report, the unit cost of direct power is RMB56.31/t. This valuation is based on the data of the Feasibility Study Report. After calculation, the total cost of direct power in a normal year is RMB185.82 million. This value is taken for the valuation of direct power in this project.

(4) Employee remuneration: According to the design of the Feasibility Study Report, the unit employee remuneration in the first phase is RMB55.36/t. This valuation is based on the data of the Feasibility Study Report. After calculation, the total cost of employee remuneration in a normal year is RMB182.7 million. This value is taken for the valuation of employee remuneration in this project.

(5) Depreciation fee: According to the relevant provisions of the "Regulations on the Implementation of the Enterprise Income Tax Law of the People's Republic of China" (2008), the depreciation period of houses and buildings shall not be less than 20 years; the depreciation period of machinery equipment shall not be less than 10 years; the depreciation period of instruments, tools and furniture related to production and business activities shall not be less than 5 years. According to the "Notice of State Administration of Taxation on Clarifying the Implementation Time for Enterprises to Adjust the Residual Value Ratio of Fixed Assets (Guo Shui Han [2005] No. 883 on 14 September 2005), the residual value ratio of fixed assets is uniformly determined to be 5%.

According to the "Guiding Opinions on Determination of Mineral Rights Valuation Parameters", the depreciation is calculated according to the fixed asset investment amounts and service life determined during this project valuation. Houses and buildings are depreciated based on 40 years, and machinery equipment are depreciated based on mine service life of 15 years, with a residual value ratio of 5%, and the tunnel project are depreciated based on mine service life of 36 years, with no residual value. The annual depreciation fee is:

The depreciation fee of the original houses and buildings in the normal production years = 30,491.15 × (1-5%) ÷ 40 = 724.16 (RMB0'000);

The depreciation fee of houses and buildings of the upper part of the first phase in the normal production years = 5,590.58 × (1-5%) ÷ 40 = 132.78 (RMB0'000);

The depreciation fee of the original machinery equipment in the normal production years = 37,216.18 × (1-5%) ÷15.00 = 2,357.02 (RMB0'000);

The depreciation fee of machinery equipment of the upper part of the first phase in the normal production years = 109,405.80 × (1-5%) ÷15.00 = 6,929.03 (RMB0'000);

The depreciation fee of the original tunnel project in the normal production years = 69,643.11 ÷ 36.00 ≈1,934.53 (RMB0'000);

The depreciation fee of tunnel project of the upper part of the first phase in the normal production years = 223,223.47 ÷ 36.00 ≈ 6,200.65 (RMB0'000);

The depreciation fee incurred by using the original tailings pond in the normal production years = 7,231.50 ÷18.5 ≈ 390.89 (RMB0'000);

After calculation, for the first phase, taking 2031 as an example, the depreciation fee is RMB186.6906 million, and the depreciation fee of raw ore per unit is RMB56.57/t.

(6) Repair charge: According to the design of the Feasibility Study Report, the unit cost of repair charge is RMB23.54/t. This valuation is based on the data of the Feasibility Study Report. After calculation, the total repair charge in a normal year is RMB77.67 million. This value is taken for the valuation of repair cost in this project.

(7) Other manufacturing expenses: According to the design of the Feasibility Study Report, the unit cost of other manufacturing expenses is RMB39.01/t. This valuation is based on the data of the Feasibility Study Report. After calculation, the total amount of other manufacturing expenses in a normal year is RMB128.73 million. This value is taken for the valuation of other manufacturing expenses in this project.

Among them: production safety fee: According to the Notice on Issuing the Administrative Measures for the Withdrawal and Use of Expenses for Production Safety of Enterprises ("關於印發《企業安全生產費用提取和使用管理辦法》的通知") (Cai Zi [2022] No. 136) issued by the Ministry of Finance and the Ministry of Emergency Management, metal underground mines shall be RMB15 per tonne; the Department of Emergency Management of Shandong Province stipulates that the production safety fee for non-coal mines in deep wells shall be increased by RMB5/t. The production safety cost of the enterprise shall be accrued based on the amount of tailings stored in the tailing reservoirs for the prevailing month, of which tailing reservoirs of grade three and above shall be RMB4 per tonne, and tailing reservoirs of grade four and five shall be RMB5 per tonne.

Due to the product plan involves gold concentrate, the annual production of concentrate is 221,435.48 tonnes according to the Feasibility Study Report. The tailings are grade three and above tailing reservoirs. The tailings of this mine are RMB4 per tonne, so the production safety fee is RMB23.73/t, and the production safety fee in normal production years is RMB78.309 million/year.

(8) Amortization charge of intangible assets: According to the utilization of the original investment and the design of the Feasibility Study Report, the subsequent exploration investment is RMB67.89 million, and the land use cost is RMB31.5507 million, the total amount of ore is 112.53 million tonnes, so the unit amortization charge is RMB0.88/t in this valuation. The amortization charge in normal production years is RMB2.9161 million/year.

(9) Other management fee: According to the design of the Feasibility Study Report, other management fee per unit of the upper part of the first phase is RMB136.00/t, so the unit cost of other management fee determined in this valuation is RMB136.00/t. The other management fee in normal production years is RMB448.8000 million/year.

(10) Sales expense: According to the design of the Feasibility Study Report, the unit cost of sales expense of the upper part of the first phase is RMB3.73/t, so the unit cost of sales expense determined in this valuation is RMB3.73/t. The total sales expense in normal production years is RMB12.30 million/year.

(11) Financial cost: According to the "Guiding Opinions on Determination of Mineral Rights Valuation Parameters", interest expenses refer to expenses incurred to raise funds required for production and operation. In the valuation of mineral rights, it is generally assumed that 70% of the working capital is bank loans, and loan interest is included in financial cost.

The interest rate on working capital loans is 4.35% of the one-year loan interest rate announced by the People's Bank of China.

Financial cost per unit of $151,050.30 \times 0.7 \times 4.35\% \div 330.00 \approx$ RMB13.94/t, and the annual financial cost is RMB45.9948 million.

(12) Total cost expense

Total unit cost expense = direct material + direct fuel + direct power + employee compensation + depreciation fee + repair fee + other manufacturing expenses + amortization fee of intangible assets + other management fee + sales expense + finance cost

Therefore: the total unit cost expense is RMB459.59/t, and the total annual cost expense is RMB1,516.6326 million.

(13) Operating cost

Operating cost of raw ore per unit = total costs - depreciation fee- amortization fee - financial cost

Therefore: the operating cost per unit is RMB389.04/t, and the annual operating cost is RMB1,283.8400 million.

13.7 Taxes and surcharges

This mine is a gold mine and does not involve value-added tax. The taxes and surcharges of this project include resource tax.

13.7.1 Resource tax

According to the Resource Tax Law of the People's Republic of China (《中華人民共和國資源税法》) and the Decision of the Standing Committee of the Shandong Provincial People's Congress on the Specific Applicable Tax Rates, Calculation Methods and Exemption or Reduction Measures of Shandong Provincial Resource Tax (《山東省人民代表大會常務委員會關於山東省資源税具體適用税率、計徵方式和免徵或者減徵辦法的決定》) (adopted at the 20th meeting of the Standing Committee of the 13th Shandong Provincial People's Congress on 12 June 2020), the amount of gold resource tax payable in Shandong Province is determined to be 4.2% of the sales revenue of gold ore beneficiation, and the associated taxable products are exempt from resource tax; the resource tax determined in this valuation is 4.2% of the sales revenue of beneficiation.

(Taking 2031 as an example) Annual resource tax = 494,545.77 × 4.2% = 20,770.92 (RMB0'000).

13.7.2 Enterprise income tax

According to the Law of the People's Republic of China on Enterprise Income Tax《中華人民共和國企業所得税法》(Order No. 63 of the President of the People's Republic of China), the enterprise income tax rate is 25%.

Enterprise income tax	=	total profit × income tax rate
	=	(sales revenue - total cost expense - sales taxes and surcharges) × income tax rate

(Taking 2031 as an example) Enterprise income tax = 80,527.90 (RMB0'000).

13.8 Discount rate

According to the Guiding Opinions on Determination of Mineral Rights Valuation Parameters (CMVS30800-2008) and the China Mineral Rights Valuation Standards, the discount rate refers to the rate at which the expected return is discounted to its present value, and generally adopts the risk-free return rate + risk-reward rate approaches.

The risk-free return rate can be determined by selecting the coupon rate of the long-term treasury bonds most recently issued prior to the Valuation Reference Date, the weighted average of the interest rates of the long-term treasury bonds issued in last few years, and the interest rate of 5-year time deposits announced by the People's Bank of China closest to the Valuation Reference Date. For the purpose of this valuation, the latest interest rate on 5-year government bonds of 2.75% issued on 10 October 2023 was selected as the risk-free return rate for the valuation of this project.

The risk-reward rate is estimated using the "risk-based aggregation method", which quantifies and accumulates the risk-reward requirements of various risks of a mineral exploration and development enterprise. The formula is:

Risk-reward rate = risk in the exploration and development stage + industry risk + financial and operational risk + other risks.

Where: risk in the exploration and development stage lies in exploration, ranging between 0.15% ~ 1.15%; the return rate of industry risk ranges between 1.00% ~ 2.00%; the return rate of financial and operational risk ranges between 1.00% ~ 1.50%; the return rate of other risks ranges between 0.50 ~ 2.00%. The risk-reward rate in the exploration and development stage of this valuation is 1%; the reward rate of industry risk is 2%; the reward rate of financial and operational risk is 1.50%; and the reward rate of other risks is 1.15%. The total risk-reward rate is 5.65%.

The sum of the risk-free return rate and the risk-reward rate is 8.40%.

Based on the above, the discount rate for this project is determined to be 8.40%.

14 VALUATION ASSUMPTION

The appraised value mentioned in this valuation report is based on fair value opinions expressed based on the listed valuation purpose, the Valuation Reference Date and the following underlying assumptions:

(1) The degree of geological survey work as well as the internal and external conditions of the valuation target have no major changes but remain current status;

(2) The relevant policies, laws and systems followed have no major change but remain current status and the related social, political and economic environment as well as the development technologies and conditions, etc. have no major change but remain current status;

(3) It will not take into account the impact on the appraised value of encumbrance rights such as mortgages and guarantees that may be assumed in the future, or any other restrictions on the property rights, and any additional price that may be paid by a special counterparty;

(4) The exploration right can be successfully converted into mining right and the mining license can be obtained. Its subsequent development and utilization methods can be smoothly implemented according to the plans set out in the feasibility study, and the obtained mining license can be smoothly extended until the expiration of the evaluated life;

(5) There is no other significant impact caused by force majeure and unpredictable factors.

15 VALUATION CONCLUSION

The appraised value of the "Exploration and Prospecting Right of Xiling Village Gold Mine in Laizhou City, Shandong Province" is determined to be RMB11,028.8013 million (i.e., RMB eleven billion twenty-eight million eight hundred and one thousand three hundred only), by our valuator on the basis of full investigation, correct analysis of the actual situation of the valuation target and adopting the design information of the feasibility study based on the scientific procedures and methodologies, and by selecting the reasonable parameters.

16 SPECIAL NOTES

(1) This valuation conclusion is made under the principles of independence, objectivity and justice. There is no interest relationship between the valuer and the valuator participating in the project and the valuation client and the prospecting right holder.

(2) The relevant documents and materials provided by the valuation client and the prospecting right holder in this valuation are the basis for the preparation of this report. The parties providing the relevant documents and materials shall be responsible for the truthfulness, legality and completeness of the relevant documents and materials provided.

(3) According to the mineral right holder, this prospecting right has not been disposed of for consideration. According to the Notice on Issuing the Measures for the Collection of Income from the Transfer of Mineral Rights (《關於印發〈礦業權出讓收益徵收辦法〉的通知》) (Caizong [2023] No. 10) issued by the Ministry of Finance, the Ministry of Natural Resources and the State Taxation Administration, gold ore processing products shall be subject to annual payment of the transfer income of the mining right at the rate of 2.3% of the sales revenue. Based on this forecast future income, the total amount of mining rights income to be paid in future years is RMB3,531.2194 million. The discounted value is RMB691.2479 million based on the discount rate adopted in this valuation. As there are no unified regulations in the industry regarding specific treatment of the transfer income in the valuation conclusion, the valuation conclusion contains the transfer income of mining rights of liability nature. Users of the report are reminded to pay attention to the impact of this matter on the valuation conclusion.

(4) The beneficiation process is estimated only on the basis of the beneficiation plan and technical indicators designed the Feasibility Study on the Exploration of the Xiling Gold Mine in the Sanshandao Mine Area of Laizhou City, Shandong Province (China ENFI Engineering Corporation, May 2023). The valuer does not have the technical means to verify such process. Users of the report are reminded of this matter.

(5) With reference to the valuation opinions, there are an amount of gold ore of 1.1122 million tonnes and an amount of Au metal of 4,393 kg, with an average Au grade of 3.95 g/t, within the scope of the exploration right which have been filed but yet difficult to be utilized. As it has not been designed for utilization in the Feasibility Study Report, the impact on the appraised value of possible utilization of such part of the resources has not been considered in the valuation conclusion. Users of the report are reminded of this matter.

(6) For any defective matters that may affect the valuation conclusion, the valuer and the valuator shall not bear the relevant responsibilities in the case that the valuation client and the prospecting right holder have not made any special explanations and that the valuator is still unable to be informed after having performed the valuation procedures.

(7) This valuation report contains several annexes (including attached charts), which form an important part of this report and have the same legal effect as the main text of this valuation report.

(8) This valuation report shall come into effect after it has been signed by the legal representative of the valuer and the mineral right valuator and stamped with the official seal of the valuer.

17 RESTRICTIONS ON THE USE OF THE MINERAL RIGHT VALUATION REPORT

(1) The Valuation Reference Date for this project is 31 October 2023. In accordance with current national policies, the valuation conclusion shall be valid for one year from the Valuation Reference Date, and it shall be re-valued if the validity period is expired. If the use of this valuation conclusion exceeds the validity period, the firm shall not be liable for any loss caused to the relevant parties by the application of this valuation conclusion.

(2) This valuation report can only serve the valuation purpose stated in the valuation report.

(3) This valuation report is only used by the client and the parties involved in the economic situation for the valuation purpose of this project. Unless otherwise stipulated by laws and regulations and otherwise agreed by the relevant parties, the valuation report shall not be made available, in whole or in part, to any other entities or individuals, nor shall it be extracted or quoted without the consent of the mineral right valuator who signed this project and the valuer. The report shall not be published in whole or in part in any public media without the written consent of the Company and the client. Copies of this valuation report have no legal effect. It is the responsibility of the valuation client and relevant parties to correctly understand and reasonably use the valuation report. The ownership of this valuation report belongs to the valuation client.

(4) The Company is only responsible for whether the valuation conclusion of this project meets the requirements of professional standards and is not responsible for asset pricing decisions. The valuation conclusion of this project is a reference opinion of the value based on the specific valuation purpose of this project, rather than market price, and shall not be used for any other purpose, nor has it taken into account the possible impact of changes in national macroeconomic policies or other force majeure on it.

18 MINERAL RIGHT VALUATION REPORT DATE

The valuation report date of this project, the date of issuance of the valuation report, is 4 December 2023.

19 SIGNATURE AND SEAL OF THE VALUER AND MINERAL RIGHT VALUATOR

Legal representative:

Project manager:

Mineral right valuator:

Beijing Zhongzhicheng International Assets Appraisal Co., Ltd.
4 December 2023

Table of the Estimated Value of the Exploration and Prospecting Right of Xiling Village Gold Mine in Laizhou City, Shandong Province (1-1)

Client: Shandong Gold Mining Co., Ltd. Valuation reference date: 31 October 2023 *Unit: RMB0'000*

No.	Item	Total	Valuation reference date: 31 October 2023	Infrastructure construction period: November-December 2023	2024	2025	2026	2027	2028	2029	Normal production period: January-October 2030	November-December 2030	2031	2032	2033
1	Cash inflow (+)														
1.1	Sales revenue	15,353,127.93										82,424.30	494,545.77	494,324.04	493,375.90
1.2	Recovery of net residual value of fixed assets	138,754.65										0.00	0.00	0.00	0.00
1.3	Recovery of working capital	148,363.73													
1.4	Recovery of residual value of other assets and intangible assets	0.00													
1.5	Recovery of value added tax of fixed assets	0.00										0.00	0.00	0.00	0.00
1.6	Subtotal	15,640,246.31	–	–								82,424.30	494,545.77	494,324.04	493,375.90
2	Cash outflow (-)														
2.1	Subsequent exploration investment	0.00													
2.2	Investment in fixed assets	643,506.94		8,064.83	48,389.00	48,389.00	48,389.00	48,389.00	48,389.00	48,389.00	184,906.11				
2.3	Investment in intangible assets	3,155.07	2,307.07	848.00											
2.4	Investment in other assets	0.00													
2.5	Investment in upgrading and transformation	324,068.45										0.00	0.00	0.00	0.00
2.6	Working capital	148,363.73										148,363.73			
2.7	Operating costs	4,907,608.00										21,397.33	128,384.00	128,383.50	128,381.33
2.8	Sales tax and surcharge	644,831.37										3,461.82	20,770.92	20,761.61	20,721.79
2.9	Enterprise income tax	2,201,683.98										13,405.76	80,527.90	80,474.92	80,248.38
2.10	Subtotal	8,873,217.55	2,307.07	8,912.83	48,389.00	48,389.00	48,389.00	48,389.00	48,389.00	48,389.00	184,906.11	186,628.64	229,682.82	229,620.03	229,351.50
3	Net cash flow	6,767,028.76	-2,307.07	-8,912.83	-48,389.00	-48,389.00	-48,389.00	-48,389.00	-48,389.00	-48,389.00	-184,906.11	-104,204.34	264,862.95	264,704.01	264,024.40
4	Discount coefficient (i=8.40%)		1.0000	0.9864	0.9100	0.8395	0.7744	0.7144	0.6590	0.6079	0.5685	0.5608	0.5173	0.4772	0.4402
5	Present value of net cash flow	1,102,880.13	-2,307.07	-8,791.62	-44,033.99	-40,622.57	-37,472.44	-34,569.10	-31,888.35	-29,415.67	-105,119.12	-58,437.80	137,013.60	126,316.75	116,223.54
6	Valuation of exploration right	**1,102,880.13**													

Valuer: **Beijing Zhongzhicheng International Assets Appraisal Co., Ltd.**

Table of the Estimated Value of the Exploration and Prospecting Right of Xiling Village Gold Mine in Laizhou City, Shandong Province (1-2)

Client: Shandong Gold Mining Co., Ltd. Valuation reference date: 31 October 2023 *Unit: RMB0'000*

No.	Item	Normal production period										
		2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
1	Cash inflow (+)											
1.1	Sales revenue	498,465.69	519,373.10	515,197.01	504,949.82	494,023.45	495,717.32	487,736.09	480,893.10	466,046.44	448,727.19	434,345.90
1.2	Recovery of net residual value of fixed assets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.3	Recovery of working capital											
1.4	Recovery of residual value of other assets and intangible assets											
1.5	Recovery of value added tax of fixed assets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.6	Subtotal	498,465.69	519,373.10	515,197.01	504,949.82	494,023.45	495,717.32	487,736.09	480,893.10	466,046.44	448,727.19	434,345.90
2	Cash outflow (-)											
2.1	Subsequent exploration investment											
2.2	Investment in fixed assets									17,903.33	17,903.33	17,903.33
2.3	Investment in intangible assets											
2.4	Investment in other assets											
2.5	Investment in upgrading and transformation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.6	Working capital											
2.7	Operating costs	128,393.67	128,445.67	128,435.17	128,410.17	128,382.67	128,387.33	128,366.83	128,350.17	128,313.17	128,269.67	130,134.00
2.8	Sales tax and surcharge	20,935.56	21,813.67	21,638.27	21,207.89	20,748.98	20,820.13	20,484.92	20,197.51	19,573.95	18,846.54	18,242.53
2.9	Enterprise income tax	81,464.30	86,458.63	85,461.08	83,013.13	80,403.13	80,807.65	78,901.27	77,266.54	73,720.02	69,582.93	65,672.53
2.10	Subtotal	230,793.53	236,717.97	235,534.52	232,631.19	229,534.78	230,015.11	227,753.02	225,814.22	239,510.47	234,602.47	231,952.39
3	Net cash flow	267,672.16	282,655.13	279,662.49	272,318.63	264,488.67	265,702.21	259,983.07	255,078.88	226,535.97	214,124.72	202,393.51
4	Discount coefficient (i=8.40%)	0.4061	0.3746	0.3456	0.3188	0.2941	0.2713	0.2503	0.2309	0.2130	0.1965	0.1813
5	Present value of net cash flow	108,701.67	105,882.61	96,651.36	86,815.18	77,786.12	72,085.01	65,073.76	58,897.71	48,252.16	42,075.51	36,693.94
6	Valuation of exploration right											

Valuer: **Beijing Zhongzhicheng International Assets Appraisal Co., Ltd.**

Table of the Estimated Value of the Exploration and Prospecting Right of Xiling Village Gold Mine in Laizhou City, Shandong Province (1-3)

Client: Shandong Gold Mining Co., Ltd. Valuation reference date: 31 October 2023 *Unit: RMB0'000*

No.	Item	Normal production period										
		2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055
1	Cash inflow (+)											
1.1	Sales revenue	406,689.64	412,771.10	427,551.21	437,281.02	437,471.90	438,974.48	441,301.73	439,245.26	439,565.24	441,129.62	442,908.30
1.2	Recovery of net residual value of fixed assets	7,331.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.3	Recovery of working capital											
1.4	Recovery of residual value of other assets and intangible assets											
1.5	Recovery of value added tax of fixed assets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.6	Subtotal	414,020.74	412,771.10	427,551.21	437,281.02	437,471.90	438,974.48	441,301.73	439,245.26	439,565.24	441,129.62	442,908.30
2	Cash outflow (-)											
2.1	Subsequent exploration investment											
2.2	Investment in fixed assets								21,298.40	21,298.40	21,298.40	21,298.40
2.3	Investment in intangible assets											
2.4	Investment in other assets											
2.5	Investment in upgrading and transformation	146,621.98	0.00	0.00	0.00	7,231.50	0.00	0.00	0.00	0.00	0.00	0.00
2.6	Working capital											
2.7	Operating costs	139,565.67	139,580.50	139,617.83	139,642.00	139,642.50	139,646.33	139,652.00	139,647.00	139,647.67	139,651.33	144,781.50
2.8	Sales tax and surcharge	17,080.96	17,336.39	17,957.15	18,365.80	18,373.82	18,436.93	18,534.67	18,448.30	18,461.74	18,527.44	18,602.15
2.9	Enterprise income tax	55,897.05	57,349.85	60,880.35	63,204.60	63,250.19	63,603.52	64,159.48	63,668.20	63,744.67	64,118.42	63,261.88
2.10	Subtotal	359,165.66	214,266.74	218,455.33	221,212.40	228,498.01	221,686.78	222,346.15	243,061.90	243,152.48	243,595.60	247,943.93
3	Net cash flow	54,855.08	198,504.36	209,095.88	216,068.62	208,973.89	217,287.70	218,955.58	196,183.36	196,412.76	197,534.02	194,964.37
4	Discount coefficient (i=8.40%)	0.1673	0.1543	0.1423	0.1313	0.1211	0.1117	0.1030	0.0950	0.0876	0.0808	0.0745
5	Present value of net cash flow	9,177.26	30,629.22	29,754.34	28,369.81	25,306.74	24,271.04	22,552.42	18,637.42	17,205.76	15,960.75	14,524.85
6	Valuation of exploration right											

Valuer: **Beijing Zhongzhicheng International Assets Appraisal Co., Ltd.**

Table of the Estimated Value of the Exploration and Prospecting Right of Xiling Village Gold Mine in Laizhou City, Shandong Province (1-4)

Client: Shandong Gold Mining Co., Ltd. Valuation reference date: 31 October 2023 *Unit: RMB0'000*

		Normal production period										
No.	Item	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	January-October 2066
1	Cash inflow (+)											
1.1	Sales revenue	447,580.50	437,332.24	419,159.23	420,304.77	410,175.39	406,845.10	404,177.11	369,909.69	214,523.91	107,137.99	40,947.38
1.2	Recovery of net residual value of fixed assets	0.00	0.00	0.00	0.00	7,331.10	0.00	1,179.65	0.00	0.00	0.00	122,912.80
1.3	Recovery of working capital											148,363.73
1.4	Recovery of residual value of other assets and intangible assets											0.00
1.5	Recovery of value added tax of fixed assets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.6	Subtotal	447,580.50	437,332.24	419,159.23	420,304.77	417,506.49	406,845.10	405,356.76	369,909.69	214,523.91	107,137.99	312,223.91
2	Cash outflow (-)											
2.1	Subsequent exploration investment											
2.2	Investment in fixed assets	21,298.40										
2.3	Investment in intangible assets											
2.4	Investment in other assets											
2.5	Investment in upgrading and transformation	0.00	0.00	0.00	0.00	146,621.98	0.00	23,593.00	0.00	0.00	0.00	0.00
2.6	Working capital											
2.7	Operating costs	170,420.67	170,394.67	170,349.50	170,352.33	170,327.50	170,319.33	170,312.50	161,571.83	109,210.33	59,280.33	23,560.00
2.8	Sales tax and surcharge	18,798.38	18,367.95	17,604.69	17,652.80	17,227.37	17,087.49	16,975.44	15,536.21	9,010.00	4,499.80	1,719.79
2.9	Enterprise income tax	57,971.08	52,802.48	48,461.33	48,734.98	46,315.20	45,519.64	44,882.37	38,930.34	15,213.28	2,306.90	0.00
2.10	Subtotal	268,488.53	241,565.10	236,415.52	236,740.11	380,492.04	232,926.47	255,763.31	216,038.38	133,433.62	66,087.03	25,279.79
3	Net cash flow	179,091.97	195,767.14	182,743.71	183,564.66	37,014.45	173,918.63	149,593.45	153,871.31	81,090.29	41,050.96	286,944.12
4	Discount coefficient (i=8.40%)	0.0687	0.0634	0.0585	0.0540	0.0498	0.0459	0.0423	0.0390	0.0360	0.0332	0.0311
5	Present value of net cash flow	12,303.62	12,411.64	10,690.51	9,912.49	1,843.32	7,982.87	6,327.80	6,000.98	2,919.25	1,362.89	8,923.96
6	Valuation of exploration right											

Valuer: **Beijing Zhongzhicheng International Assets Appraisal Co., Ltd.**

Contents of Annex

1. RESPONSIBILITY STATEMENT

This circular, for which the Directors collectively and individually accept full responsibility, includes particulars given in compliance with the Hong Kong Listing Rules for the purpose of giving information with regard to the Company. The Directors, having made all reasonable enquiries, confirm that, to the best of their knowledge and belief, the information contained in this circular is accurate and complete in all material respects and not misleading or deceptive, and there are no other matters the omission of which would make any this circular or statement herein misleading.

2. DISCLOSURE OF INTERESTS

(A) Directors', Supervisors' and Chief Executives of the Company's Interests and Short Positions in the Shares, the Underlying Shares and Debentures

Save as disclosed below, as at the Latest Practicable Date, none of the Directors, Supervisors or chief executives of the Company has any interest or short position in the shares, underlying shares and debentures of the Company or any of its associated corporations (within the meaning of Part XV of the SFO) which were required (a) to be notified to the Company and the Hong Kong Stock Exchange pursuant to Divisions 7 and 8 of Part XV of the SFO (including interests or short positions which they were taken or deemed to have taken under such provisions of the SFO); (b) to be recorded in the register required to be kept by the Company pursuant to section 352 of the SFO; or (c) to be notified to the Company and the Hong Kong Stock Exchange pursuant to the Model Code for Securities Transactions by Directors of Listed Issuers as set out under Appendix C3 to the Hong Kong Listing Rules, in accordance with information received by the Company:

Name	Title	Nature of interest	Class of Shares	Number of Shares	Long/ Short position	Approximate percentage of shareholding in the relevant class of Shares	Approximate percentage of shareholding in the total issued share capital
Mr. Tang Qi	Executive Director	Beneficial owner	A Shares	149,056	Long	0.0041%	0.0033%

(B) Substantial Shareholders' and Other Persons' Interests and Short Positions in the Shares, Underlying Shares and Debentures

So far as is known to the Directors and chief executive of the Company, as at the Latest Practicable Date, the following persons (other than the Directors, supervisors and chief executive of the Company) had interests or short positions in the Shares and underlying Shares, which were required to be notified to the Company pursuant to the provisions of Divisions 2 and 3 of Part XV of the SFO, or which were required to be recorded in the register required to be kept by the Company pursuant to section 336 of the SFO:

Name of Substantial Shareholder	Nature of interest	Class of Shares	Number of Shares or underlying Shares interested	Long/ Short position	Approximate percentage of shareholding in the relevant class of Shares	Approximate percentage of shareholding in the total issued share capital
SDG Group Co.	Beneficial owner	A Shares	1,694,069,251	Long	46.87%	37.87%
	Interest held by controlled corporation[(1)]	A Shares	345,073,733	Long	9.55%	7.71%
Shandong Gold Resources Development Co., Ltd. ("**SDG Resources Development**")	Beneficial owner[(2)]	A Shares	194,872,049	Long	5.39%	4.36%
Gold Virtue Limited	Beneficial owner	H Shares	94,189,655	Long	10.97%	2.11%
			11,000,000	Short	1.28%	0.25%
Schroders PLC	Investment manager	H Shares	85,127,850	Long	9.91%	1.90%
China Structural Reform Fund Corporation Limited (中國國有企業結構調整基金股份有限公司)	Beneficial owner	H Shares	76,639,270	Long	8.92%	1.71%
CEB-GFAM-China Structural Reform Fund Asset Management Account No. 1 (廣發資管－國調基金1號定向資產管理計劃)	Trustee	H Shares	76,639,270	Long	8.92%	1.71%
BlackRock, Inc.[(3)]	Interest held by controlled corporation	H Shares	44,134,853	Long	5.14%	0.99%
			5,247,250	Short	0.61%	0.12%

Notes:

(1) These 345,073,733 A Shares comprise 194,872,049 A Shares held by SDG Resources Development, 115,477,482 A Shares held by Shandong Gold Non-ferrous Metal Mine Group Co., Ltd. ("**SDG Non-ferrous**"), 31,467,157 A Shares held by Shandong Gold Group Qingdao Gold Co., Ltd. ("**Qingdao Gold**") and 3,257,045 A Shares held by SDG (Beijing) Industry Investment Co., Ltd. ("**Beijing Industry Investment**"). Each of SDG Resources Development, Qingdao Gold and Beijing Industry Investment is wholly-owned by SDG Group Co. SDG Group Co. holds 100% equity interest of SDG Non-ferrous. As such, SDG Group Co. is deemed to be interested in the Shares held by SDG Resources Development, SDG Non-ferrous, Qingdao Gold and Beijing Industry Investment for the purpose of the SFO.

(2) SDG Resources Development is wholly-owned by SDG Group Co., and therefore SDG Group Co. is deemed to be interested in all the Shares held by SDG Resources Development for the purpose of the SFO.

(3) BlackRock, Inc. is deemed to hold a total of long position of 44,134,853 H Shares and a short position of 5,247,250 H Shares due to its control rights over a number of companies. Trident Merger, LLC, BlackRock Investment Management, LLC, BlackRock Holdco 2, Inc., BlackRock Financial Management, Inc., BlackRock Holdco 4, LLC, BlackRock Holdco 6, LLC, BlackRock Delaware Holdings Inc., BlackRock Institutional Trust Company, National Association, BlackRock Fund Advisors, BlackRock Capital Holdings, Inc., BlackRock Advisors, LLC, BlackRock International Holdings, Inc., BR Jersey International Holdings L.P., BlackRock Lux Finco S.à r.l., BlackRock Japan Holdings GK, BlackRock Japan Co., Ltd., BlackRock Holdco 3, LLC, BlackRock Canada Holdings ULC, BlackRock Asset Management Canada Limited, BlackRock Australia Holdco Pty. Ltd., BlackRock Investment Management (Australia) Limited, BlackRock (Singapore) Holdco Pte. Ltd., BlackRock HK Holdco Limited, BlackRock Asset Management North Asia Limited, BlackRock Cayman 1 LP, BlackRock Cayman West Bay Finco Limited, BlackRock Cayman West Bay IV Limited, BlackRock Group Limited, BlackRock Finance Europe Limited, BlackRock (Netherlands) B.V., BlackRock International Limited, BlackRock Group Limited-Luxembourg Branch, BlackRock Luxembourg Holdco S.à r.l., BlackRock Investment Management Ireland Holdings Limited, BlackRock Asset Management Ireland Limited, BLACKROCK (Luxembourg) S.A., BlackRock Investment Management (UK) Limited, BlackRock Fund Managers Limited, BlackRock Life Limited, BlackRock (Singapore) Limited, BlackRock UK Holdco Limited, BlackRock Asset Management Schweiz AG, EG Holdings Blocker, LLC, Amethyst Intermediate, LLC, Aperio Holdings, LLC and Aperio Group, LLC, being the controlled corporations, are directly or indirectly interested in the H Shares.

Save as disclosed above, as at the Latest Practicable Date, the Directors, Supervisors and chief executive of the Company are not aware of any person (who were not Directors, Supervisors and chief executive of the Company) who had an interest or short position in the Shares or underlying Shares which would be required to be disclosed to the Company and the Hong Kong Stock Exchange under the provisions of Divisions 2 and 3 of Part XV of the SFO or were interested in 5% or more of the nominal value of any class of the share capital carrying the rights to vote in all circumstances at general meetings of the Company, or had an interest or short position which would be required to be entered into the register to be kept by the Company pursuant to Section 336 of the SFO.

3. DIRECTORS' SERVICE CONTRACTS

As at the Latest Practicable Date, none of the Directors had any existing or proposed service contracts with any member of the Group (excluding contracts expiring or determinable by the employer within one year without payment of compensation (other than statutory compensation)).

4. COMPETING INTERESTS

As at the Latest Practicable Date, the Directors are not aware of any business or interest of the Directors nor any of their respective associates (as defined in the Hong Kong Listing Rules) that competes or may compete with the business of the Group and any other conflicts of interest which any such person has or may have with the Group (as would be required to be disclosed under Rule 8.10 of the Hong Kong Listing Rules as if each of them was a controlling Shareholder).

5. DIRECTORS' AND SUPERVISORS' EMPLOYMENT WITH SUBSTANTIAL SHAREHOLDERS

As at the Latest Practicable Date, the followings are the particulars of Directors' and Supervisors' employment with substantial Shareholders who had interests or short positions in the Shares and underlying Shares which are required to be disclosed to the Company pursuant to Divisions 2 and 3 of Part XV of the SFO:

Mr. Li Hang, the chairman of the Board, served as the secretary of the CPC Committee, the chairman and the general manager of SDG Group Co.

Mr. Li Xiaoping, the chairman of the Supervisory Committee, served as a standing member of the CPC Committee of SDG Group Co.

Ms. Wang Xiaoling, the Director, served as a special advisor of SDG Group Co.

6. INTERESTS IN CONTRACT OR ARRANGEMENTS

As at the Latest Practicable Date, none of the Directors was materially interested in contract or arrangement subsisting which is significant in relation to the business of the Group, nor has any Director had any direct or indirect interest in any assets which have been acquired or disposed of by or leased to or are proposed to be acquired or disposed of by or leased to any member of the Group since 31 December 2022, the date to which the latest published audited consolidated financial statements of the Group were made up.

7. NO MATERIAL ADVERSE CHANGE

As at the Latest Practicable Date, the Directors are not aware of any material adverse change in the financial or trading position of the Group since 31 December 2022, the date to which the latest published audited consolidated financial statements of the Group were made up.

8. EXPERTS AND CONSENTS

The following are the qualifications of the experts who have given opinion or advice which is contained in this circular:

Name	Qualification
Lego Corporate Finance Limited	a licensed corporation under the SFO to carry out Type 6 (advising on corporate finance) regulated activities
Beijing Zhongzhicheng International Assets Appraisal Co., Ltd. (北京中致成國際資產評估有限公司)	qualified valuer

The experts mentioned above have given and confirmed that they have not withdrawn their written consents to the issue of this circular with the inclusion herein of their statements and/or references to their names in the form and context in which they appear.

The experts mentioned above have further confirmed that as of the Latest Practicable Date, they were not interested in the share capital of any member of the Group, nor did they have any right (whether legally enforceable or not) to subscribe for or to nominate persons to subscribe for securities in any member of the Group. They were not interested in any assets which have been, since 31 December 2022 (being the date to which the Company's latest published audited financial statements were made up), acquired or disposed of by or leased to any member of the Group, or are proposed to be acquired or disposed of by or leased to any member of the Group.

9. CORPORATE INFORMATION OF THE COMPANY

Registered office and headquarters in the PRC	No. 2503 Jingshi Road Licheng District Jinan, Shandong Province PRC Postal Code 250107
Principal place of business in Hong Kong	Rooms 4003-06 China Resources Building No. 26 Harbour Road Hong Kong
H Share registrar	Tricor Investor Services Limited 17/F, Far East Finance Centre 16 Harcourt Road Hong Kong
Joint company secretaries	Mr. Tang Qi Ms. Ng Sau Mei (FCG, HKFCG)

10. DOCUMENTS ON DISPLAY

The electronic files of the following documents will be on display for inspection on the website of the Hong Kong Stock Exchange (http://www.hkexnews.hk) and the website of the Company (http://www.sdhjgf.com.cn) for a period of 14 days from the date of this circular (both days inclusive):

(a) the Acquisition Agreement; and

(b) the Valuation Report.

SHANDONG GOLD MINING CO., LTD.
山東黃金礦業股份有限公司

(a joint stock company incorporated in the People's Republic of China with limited liability)

(Stock Code: 1787)

NOTICE OF 2024 SECOND EXTRAORDINARY GENERAL MEETING

NOTICE IS HEREBY GIVEN that the 2024 second extraordinary general meeting (the "**EGM**") of Shandong Gold Mining Co., Ltd. (the "**Company**") will be held at the conference room of the Company, No. 2503, Jingshi Road, Licheng District, Jinan, Shandong Province, the PRC at 10:00 a.m. on Thursday, 7 March 2024 for the purpose of considering and, if thought fit, passing the following resolutions. Unless otherwise indicated, capitalised terms used in this notice shall have the same meaning as those defined in the circular of the Company dated 21 February 2024.

ORDINARY RESOLUTION

1. To consider and approve the resolution on the acquisition of the Xiling Gold Mine Exploration Right by the Company and the connected transaction

SPECIAL RESOLUTION

2. To consider and approve the resolution on the amendments to the Articles of Association

By order of the Board
Shandong Gold Mining Co., Ltd.
Li Hang
Chairman

Jinan, the PRC
21 February 2024

As at the date of this notice, the executive directors of the Company are Mr. Liu Qin, Mr. Wang Shuhai and Mr. Tang Qi; the non-executive directors of the Company are Mr. Li Hang and Ms. Wang Xiaoling; and the independent non-executive directors of the Company are Mr. Wang Yunmin, Mr. Liew Fui Kiang and Ms. Zhao Feng.

Notes:

1. Holders of the Company's H Shares should note that the H Shares register of members of the Company will be closed from Monday, 4 March 2024 to Thursday, 7 March 2024 (both days inclusive). All transfer documents accompanied by the relevant share certificates must be lodged with the Company's H Share registrar, Tricor Investor Services Limited at 17/F, Far East Finance Centre, 16 Harcourt Road, Hong Kong no later than 4:30 p.m. on Friday, 1 March 2024. H Shareholders whose names appear on the H Shares register of members of the Company at the close of business on Friday, 1 March 2024 are entitled to attend with their identity cards or passports and vote at the EGM. The record date and arrangements in respect of the holders of A Shares of the Company who are entitled to attend the EGM will be determined and announced separately in the PRC.

2. Any shareholder entitled to attend and vote at the EGM is entitled to appoint a proxy or more proxies (who need not be a shareholder of the Company) to attend the EGM and vote thereat in his stead. For any shareholder who appoints more than one proxy, the voting right can only be exercised by his/her proxies on a poll.

3. Any shareholder who intends to appoint a proxy to attend the EGM shall put it in writing, with the proxy form to be signed by the appointer or his/her attorney duly authorized in writing. If the appointer is a corporation, the proxy form must be affixed with its common seal, or signed by any of its directors or attorney duly authorized in writing. If the proxy form is signed by an attorney authorized by the appointer, the power of attorney or other authorization documents must be notarially certified. The notarially certified power of attorney or other authorization documents together with the proxy form must be delivered to the Company's H Share registrar, Tricor Investor Services Limited at 17/F, Far East Finance Centre, 16 Harcourt Road, Hong Kong (for H Shareholders only) not later than 24 hours before the time appointed for the holding of the EGM (i.e. before 10:00 a.m. on Wednesday, 6 March 2024). Completion and return of the proxy form will not affect the rights of the shareholders to attend and vote at the EGM in person.

4. Proxies of holders of the Company's H Shares shall bring along the proxy form, instrument(s) for appointing a proxy (if applicable) and the proxies' identity cards or passports to attend the EGM.

5. According to Article 108 of the articles of association of the Company, an ordinary resolution shall be passed by more than half of the votes cast by the shareholders (including proxies) present at the general meeting, while a special resolution shall be passed by more than two-thirds of the votes cast by the shareholders (including proxies) present at the general meeting.

6. Directors, supervisors and senior management of the Company and the witnessing lawyers and other relevant personnel employed by the Company will attend the EGM.