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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549**

**FORM 8-K**

**Current Report  
Pursuant to Section 13 or 15(d) of the  
Securities Exchange Act of 1934**

Date of Report (Date of Earliest Event Reported): July 19, 2010

**THUNDER MOUNTAIN GOLD**  
(Exact Name of Registrant as Specified in its Charter)

<b>Idaho</b> (State or other jurisdiction of incorporation)	<b>001-08429</b> (Commission File Number)	<b>91-1031075</b> (IRS Employer Identification No.)
<b>5248 W. Chinden, Boise, Idaho</b> (Address of principal executive offices)		<b>83714</b> (Zip Code)

Registrant's telephone number, including area code: **208-658-1037**

(Former Name or Former Address if Changed Since Last Report)

Check the appropriate box below if the Form 8K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17CFR230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communication pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

**SEC 873 (2-08) Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.**

## **FORWARD LOOKING STATEMENTS**

This Current Report on Form 8-K contains forward-looking statements. This report includes statements regarding the Company's plans, goals, strategies, intent, beliefs or current expectations with respect to the proceeds of the private placement described below. These statements are expressed in good faith and based upon a reasonable basis when made, but there can be no assurance that these expectations will be achieved or accomplished. These forward looking statements can be identified by the use of terms and phrases such as "plan," "intend," "expect," and the like, and/or future-tense or conditional constructions ("will," "may," etc.). Although forward-looking statements in this report reflect the good faith judgment of Management, forward-looking statements are inherently subject to known and unknown risks, business, economic and other risks and uncertainties that may cause actual results to be materially different from those discussed in these forward-looking statements, including without limitation "going concern" opinion on its financial statements, underfinanced to develop properties or ore bodies, capital costs may cost more and provide less return than Management has estimated, mineralization estimates may be imprecise, the Company is not in production, as well as other risks set forth in the Company's Form 10-K Annual Report. Readers are urged not to place undue reliance on these forward-looking statements, which speak only as of the date of this report. The Company assumes no obligation to update any forward-looking statements in order to reflect any event or circumstance that may arise after the date of this report, other than as may be required by applicable law or regulation.

### **ITEM 3.02 UNREGISTERED SALES OF EQUITY SECURITIES**

On July 13, 2010, Thunder Mountain Gold, Inc. initiated a private offering of securities to purchase, in the aggregate, 6,000,000 Units subject to any over-allotment. The offering is being conducted in Canada and the United States. Each Unit is composed of one share of common stock and 1 Common Stock Purchase Warrant. There is no minimum offering. Each Unit is priced at \$0.20 CDN per Unit. Each Warrant has a term of 2 years and can be exercised at a price of \$0.20 CDN for a period of 12 months following the closing of the Offering and \$0.35 CDN for the final 12 months of the Warrant. The Warrants are redeemable in the event that the common shares trade at a weighted average price of \$0.50 CDN for 20 consecutive trading days. There is no dilution protection. There is no minimum participation. Participation is limited to accredited investors. The Company has been advised in this financing by Haywood Securities, Inc., a Canadian Broker-Dealer. The offering is considered a *non-brokered transaction*, as those terms are understood under Canadian securities laws, with a finder's fee payable of: (i) a cash commission of 10 percent (10%) of amounts raised; and, (ii) Common Stock Purchase Warrants equal to 10% of the underlying Units sold in this offering. There is no accountable or unaccountable expense allowance. The closing date for the financing is expected to occur on or about August 6, 2010, and can be extended if necessary. Certain registration rights are granted to purchasers of the Common Stock. No registration rights are granted to the Warrants or Units.

The securities sold and issued in connection with the private placement have not been registered under the Securities Act of 1933, as amended, or under Canadian law, or any state securities laws; and may not be offered or sold in the United States absent registration with the Securities and Exchange Commission or an applicable exemption from the registration requirements.

### **ITEM 5.02 DEPARTURE OF DIRECTORS OR CERTAIN OFFICERS; ELECTION OF DIRECTORS; APPOINTMENT OF CERTAIN OFFICERS; COMPENSATORY ARRANGEMENTS OF CERTAIN OFFICERS**

On May 25, 2010, the Board of Directors, subject to shareholder ratification, approved a Stock Incentive Plan (the "**SIP**"). The SIP will be administered by THMG's Compensation Committee and/or THMG's Board of Directors. The SIP provides for the grant of stock options, incentive stock options, stock appreciation rights, restricted stock awards, and incentive awards to eligible individuals, namely President, Vice-President, Secretary, Treasurer, Chief Executive

Officer, Chief Financial Officer and/or Principal Financial Officer, Directors, and Advisors. Advisors are eligible only if they have furnished bona fide services to the Company and such services are not in connection with the offer or sale of securities in a capital-raising transaction. The SIP incorporates “rolling maximums” and “Evergreen” provisions. A “rolling maximum” is a fixed maximum percentage of the Company’s outstanding shares, whereby the number of Shares under a Plan increase automatically with increases in the total number of shares. “Evergreen” provisions permit the reloading of shares that make up the available pool of Shares for the SIP, once the options granted have been exercised. The SIP has a fixed percentage of 10% of the total number of Shares outstanding, which as of June 1, 2010 represented 20,583,469 Shares on a non-diluted basis. The result of this change would be to immediately increase the number of Shares available for issuance under the SIP and to allow the number of Shares available for issuance under the SIP to increase automatically with increases in the total number of Shares outstanding. The Evergreen provisions allow Shares that are issued upon exercise of options under the SIP to become re-available for grant. The SIP allows the number of Shares available for issuance under the SIP to increase automatically with increases in the total number of Shares outstanding. The Evergreen provisions allowed Shares that are issued upon exercise of options under the SIP to become re-available for grant. The number of shares subject to the SIP and to outstanding awards under the SIP are adjusted appropriately by the Board if THMG’s common stock is affected through a reorganization, merger, consolidation, recapitalization, restructuring, reclassification, dividend (other than quarterly cash dividends) or other distribution, stock split, spin-off or sale of substantially all of THMG’s assets.

The SIP has a number of special terms and limitations, including without limitation that the exercise price for stock options and stock appreciation rights granted under the SIP must equal the stock’s fair market value, based on the closing price per share of THMG’s common stock, at the time the stock option or stock appreciation right is granted, subject to a limited exception for certain stock options assumed in corporate transactions; stock options and stock appreciation rights granted under the SIP may not be “repriced” without shareholder approval; stock-based awards under the SIP are subject to either three-year or one-year minimum vesting requirements, subject to exceptions for death, disability or termination of employment of an employee or upon a change of control; non-employee directors may not participate under the SIP; and shareholder approval is required for certain types of amendments to the SIP.

The foregoing summary description of the SIP is qualified in its entirety by reference to the actual terms of the SIP, which is attached hereto as Exhibit 10.1.

#### **ITEM 5.03 AMENDMENTS TO ARTICLES OF INCORPORATION OR BYLAWS; CHANGE IN FISCAL YEAR**

By *Consent to Action Without a Meeting*, the Board of Directors and a majority of the shareholders of the Company approved certain amendments to the Articles of Incorporation, in order to meet certain listing requirements of the Toronto Stock Exchange-Venture listing (“**TSX-V**”). The Amended Articles of Incorporation are attached hereto as Exhibit 3.1 and the text thereof is incorporated herein by reference. The Amended Articles of Incorporation becomes effective upon filing of the amended certificate with the Secretary of State of the State of Nevada.

#### **ITEM 7.01 REGULATION FD DISCLOSURE**

On March 23, 2010, Thunder Mountain Gold, Inc filed its first NI 43-101 Technical Report, entitled “NI 43-101 Technical Report – South Mountain Project—Owyhee County, Idaho—Thunder Mountain Gold, Inc.” (the “**Report**”), with securities regulatory authorities in Canada, pursuant to Canadian securities laws and rules of the TSX-V. It is hereby furnished to, not filed with, the Securities Exchange Commission (the “**SEC**”) on Form 8-K to satisfy the Company’s “public disclosure” obligations under Regulation FD of the Securities Exchange Act of 1934. The TSX-V approved the report on June 4, 2010. The Report is qualified in its entirety by reference to the actual Report, which is attached hereto as Exhibit 99.1.

The Report was prepared in accordance with the Canadian Securities Administrators' National Instrument 43-101 ("NI 43-101") by Gregory P. Wittmam, a licensed professional engineer with Northwestern Groundwater & Geology. Mr. Wittman is an independent Qualified Person as defined by NI 43-101. As a Company proposed to be listed on the TSX-V, the Company is required to prepare its technical reports in accordance with the policies of NI 43-101, the Canadian securities laws and the rules of the TSX-V.

All mineral resources have been estimated in accordance with the definition standards on mineral resources and mineral reserves of the Canadian Institute of Mining, Metallurgy and Petroleum referred to in NI 43-101. U.S. reporting requirements for disclosure of mineral properties are governed by the SEC Industry Guide 7 ("**Guide 7**"). NI 43-101 and Guide 7 standards are substantially different. The terms "mineral reserve", "proven mineral reserve" and "probable mineral reserve" are Canadian mining terms as defined in accordance with NI 43-101. These definitions differ from the definitions in Guide 7. Under Guide 7 standards, a "final" or "bankable" feasibility study is required to report reserves, the three-year historical average price is used in any reserve or cash flow analysis to designate reserves and the primary environmental analysis or report must be filed with the appropriate governmental authority.

The Report uses or may use the terms "mineral resource," "measured mineral resource," "indicated mineral resource" and "inferred mineral resource". The Company advises investors that these terms are defined in and required to be disclosed by NI 43-101; however, these terms are not defined terms under Guide 7 and are normally not permitted to be used in reports and registration statements filed with the SEC. Readers and investors are cautioned not to assume that any part or all of mineral deposits in these categories will ever be converted into reserves. "Inferred mineral resources" have a great amount of uncertainty as to their existence, and great uncertainty as to their economic and legal feasibility. It cannot be assumed that all or any part of an inferred mineral resource will ever be upgraded to a higher category. Under Canadian rules, estimates of inferred mineral resources may not form the basis of feasibility or pre-feasibility studies, except in rare cases. Readers and Investors are cautioned not to assume that all or any part of an inferred mineral resource exists or is economically or legally mineable. Disclosure of "contained pounds" in a resource is permitted disclosure under Canadian regulations; however, the SEC normally only permits issuers to report mineralization that does not constitute "reserves" by SEC standards as in place tonnage and grade without reference to unit measures.

The information contained in Item 7.01 of this report and in Exhibit 99.1 shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), or incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference in such a filing. All information in the presentation materials speak as of the date thereof and the Company does not assume any obligation to update said information in the future. In addition, the Company disclaims any inference regarding the materiality of such information which otherwise may arise as a result of its furnishing such information under Item 7.01 of this report on Form 8-K.

## **ITEM 8.01 OTHER EVENTS**

On June 15, 2010, the Board of Directors adopted "Thunder Mountain Gold, Inc.-Code of Business Conduct and Ethics" ("Code of Ethics"). The Code of Ethics is attached hereto as Exhibit 14.

**ITEM 9.01 EXHIBITS**

*Exhibits*

- 3.1 Amended Articles of Incorporation
- 10.1 Stock Incentive Plan
- 14 Code of Ethics
- 99.1 NI 43-101 Technical Report – South Mountain Project—Owyhee County, Idaho—  
Thunder Mountain Gold, Inc., dated March 23, 2010
- 99.2 Consent of Gregory P. Wittman, P.G.

**SIGNATURES  
FORM 8-K**

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

THUNDER MOUNTAIN GOLD, INC.  
(Registrant)

By: /s/ E. JAMES COLLORD

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E. James Collord  
President, Director and Chief Executive Officer

Date: July 19, 2010

**THUNDER MOUNTAIN GOLD, INC.  
AMENDED ADDITIONAL ARTICLES**

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**ARTICLE IV**

Section 4: Consideration for Shares.

The Board of Directors may authorize shares to be issued for consideration consisting of any tangible or intangible property of benefit to the Corporation, including cash, services, assets or other securities of the Corporation, except that neither promissory notes nor future services will constitute valid consideration. A share shall not be issued until the consideration for the share is fully paid in money or in property or past services that is not less in fair equivalent of the money that the Corporation would have received if the share had been issued for money. When the Corporation receives the consideration for which the Board of Directors authorized the issuance of the shares, the shares issued for the consideration shall be fully paid and non-assessable. Directors of the Corporation who vote for or consent to a resolution authorizing the issue of a share for a consideration other than money are jointly and severally liable to the Corporation to make good any amount by which the consideration received is less than the fair equivalent of money that the corporation would have received if the share had been issued for money on the date of the resolution.

**ARTICLE XVI**

**STOCKHOLDER APPROVAL AND RIGHTS OF DISSENT**

If the event of (a) any proposed amendment to the Corporation's Articles of Incorporation that would add, change or remove any provisions restricting or constraining the issue, transfer or ownership of any class of the Corporation's common stock or preferred stock, (b) any proposed amendment to the Corporation's Articles of Incorporation that would add, change or remove any restriction on the business or businesses that the Corporation may carry on, (c) any proposed amendment to the Corporation's Articles of Incorporation that would add, change or remove the rights, privileges, restrictions or conditions attached to the shares of such class and, without limiting the generality of the foregoing, (i) remove or change prejudicially rights to accrued dividends or rights to cumulative dividends, (ii) add, remove or prejudicially redemption rights, (iii) reduce or remove a dividend preference or a liquidation preference, or (iv) add, remove or change prejudicially conversion privileges, options, voting, transfer or pre-emptive rights, or rights to acquire securities or a corporation, or sinking fund provisions, (d) any proposed amendment to the Corporation's Articles of Incorporation that would increase the rights or privileges of any class of shares having rights or privileges equal or superior to the shares of such class, (e) any proposed amendment to the Corporation's Articles of Incorporation that would make any class of shares having rights or privileges inferior to the shares of such class equal or superior to the shares of such class, (f) any proposed amendment to the Corporation's Articles of Incorporation that would effect an exchange or create a right of exchange of all or part of the shares of another class into the shares or such class, (g) any proposed amendment to the Corporation's Articles of Incorporation that would constrain the issue, transfer or ownership of the shares of such class or change or remove such constraint, (h) any proposed sale, lease or exchange of all or substantially all of the property of the Corporation other than in the ordinary course of business, (i) any proposal to carry out a going-private transaction or a squeeze-out transaction, then (z) the

amendment must be approved by the vote, in addition to the affirmative vote otherwise required, of the holders of shares representing a majority of the voting power of each class or series adversely affected by the amendment regardless of limitations or restrictions on the voting power thereof, and (y) any stockholder whose vote is required may dissent in accordance with the provisions of NRS 92A.300 to 92A.500, inclusive, and obtain payment of the fair value of the shares held by such stockholder.

#### ARTICLE XVII MINORITY SHAREHOLDER REMEDY, DERIVATIVE ACTIONS

(a) In this section, “complainant” means: (i) a registered holder or a beneficial owner, and a former registered holder or beneficial owner of any class of the Corporation’s stock, and (ii) a director or an officer or a former director or officer of the Corporation or any of its affiliates.

(b) Subject to subsection (c) below, any complainant, as defined in subsection (a) above, may apply to a court for leave to bring an action in the name and on behalf of the Corporation or any of its subsidiaries, or intervene in an action to which any such body corporate is a party, for the purpose of prosecuting, defending or discontinuing the action on behalf of the body corporate.

(c) No action described above in subsection (b) may be brought and no intervention in an action may be made until the court is satisfied that: (i) the complainant has given notice to the directors of the Corporation or its subsidiary of the intention to apply to the court not less than fourteen days before bringing the application, or as otherwise ordered by the court, if the directors of the Corporation or its subsidiary do not bring, diligently prosecute or defend or discontinue the action; (ii) the complainant is acting in good faith; and (iii) it appears to be in the interests of the Corporation or its subsidiary that the action be brought, prosecuted, defended or discontinued.

#### ARTICLE XVIII VOTING RIGHTS OF DIRECTORS

Each director will have equal voting rights at all meetings and proceedings of the directors.

#### ARTICLE XIX ANNUAL MEETINGS

Annual meetings of the stockholders shall be held each year on a date and time designated by the Board of Directors provided that each annual meeting will be held no later than six (6) months following the Corporation’s fiscal year end. At each annual meeting, the stockholders shall elect by vote a Board of Directors and shall transact such other business as may properly be brought before the meeting.

#### ARTICLE XX REQUIRED SHAREHOLDERS APPROVAL OF AMENDMENTS TO CERTAIN ARTICLES

Subject to any higher threshold imposed by Nevada law, Article IV, Section 4, and Articles XVI, XVII, XVIII, XIX, and XX may only be amended by a two-thirds (2/3) approval of the votes cast for amendments to the Corporation’s articles of incorporation at any annual or special meeting of the stockholders called for such purpose.

## Exhibit 10.1

### THUNDER MOUNTAIN GOLD, INC. (a Nevada corporation)

#### STOCK OPTION PLAN (the "Plan")

1. **Purpose.** The purpose of this Plan is to promote to the interests of the Company and its stockholders by attracting, retaining, and stimulating the performance of selected employees and consultants, including officers and directors, and giving such employees, management, directors, and consultants the opportunity to acquire a proprietary interest in the Company's business and an increased personal interest in its continued success and progress as well as increasing the productivity of those individuals whom the Committee deems to have the potential to contribute to the success of the Company.
2. **Definitions.** Unless otherwise indicated, the following words when used herein will have the following meanings:
  - a. "Board of Directors" means the board of directors of the Company.
  - b. "Code" means the Internal Revenue Code of 1986, as amended from time to time.
  - c. "Common Stock" means the Company's common stock (par value \$0.0001) and any share or shares of the Company's common stock hereafter issued or issued in substitution for such shares.
  - d. "Company" means Thunder Mountain Gold, Inc., a Nevada corporation and its directly and indirectly-controlled subsidiaries.
  - e. "Committee" means the body appointed by the Board of Directors which will be comprised in such a manner as to comply with the requirements, if any, of Rule 16b-3 (or any successor rule) under the Exchange Act and of Section 162 of the Code.
  - f. "Compensation Committee" means the compensation committee of the Board of Directors.
  - g. "Consultant" has the meaning set out in the policies of the TSX-V.
  - h. "Director" means a member of the Board of Directors.
  - i. "Discounted Market Price" has the meaning set out in the policies of the TSX-V.
  - j. "Effective Date" means May 1, 2010.
  - k. "Eligible Participant" has the meaning set forth in Section 4 hereto.
  - l. "Employee" means:
    - (i) an individual who is considered an employee under the Code;



- (ii) an individual who works full-time for the Company or an affiliate of the Company providing services normally provided by an employee and who is subject to the same control and direction by the Company over the details and methods of work as an employee of the Company, but for whom income tax deductions are not made at source; or
- (iii) an individual who works for the Company or an affiliate on a continuing and regular basis for a minimum amount of time per week providing services normally provided by an employee and who is subject to the same control and direction by the Company over the details and methods of work as an employee of the Company, but for whom income tax deductions need not be made at source,

and may include an Officer.

- m. “Exchange Act” means the Securities Exchange Act of 1934.
- n. “Fair Market Value” means the per share value of the Common Stock determined as follows:
  - (a) if the Common Stock is listed on an established stock exchange, exchanges, or the NASDAQ National Market, the closing price per share on the last trading day immediately preceding such date on the principal exchange on which the Common Stock is traded or as reported by NASDAQ;
  - (b) if the Common Stock is not then listed on an established exchange or the NASDAQ National Market, but is quoted on the NASDAQ Small Cap Market, the NASD OTC electronic bulletin board or the National Quotation Bureau pink sheets, the average of the closing bid and asked prices per share for the Common Stock as quoted by NASDAQ, NASD or the National Quotation Bureau, as the case may be, on the last trading day immediately preceding such date; or
  - (c) if there is no such reported market for the Common Stock for the date in question, then an amount determined in good faith by the Committee.
- o. “Incentive Stock Option” means any option granted to an Eligible Participant under the Plan which the Company intends at the time the option is granted to be an Incentive Stock Option within the meaning of Section 422 of the Code.
- p. “Insider” has the meaning set out in the policies of the TSX-V.
- q. “Investor Relations Activities” has the meaning set out in the policies of the TSX-V.
- r. “Management Company Employee” means an individual employed by a Company or individual providing management services to the Company, which are required for the ongoing successful operation of the business enterprise of the Company, but excluding a Company or individual engaged in Investor Relations Activities.
- s. “Nonqualified Stock Option” means any option granted to an Eligible Participant under the Plan which is not an Incentive Stock Option.

- t. “Officer” means a duly-appointed senior officer of the Company, including the President, Vice-President, Secretary, Treasurer, Chief Executive Officer, Chief Financial Officer and/or Principal Financial Officer of the Company.
- u. “Option” means and refers collectively to Incentive Stock Options and Nonqualified Stock Options.
- v. “Option Agreement” means such Option agreement or agreements as are approved from time to time by the Board and as are not inconsistent with the terms of this Plan.
- w. “Option Share” means any share of Common Stock issuable upon exercise of an Option.
- x. “Optionee” means any Eligible Participant who is granted an Option under the Plan. “Optionee” will also mean the personal representative of an Optionee and any other person who acquires the right to exercise an Option by bequest or inheritance or pursuant to a QDRO.
- y. “Subsidiary” means a subsidiary corporation of the Company as defined in Section 425(f) of the Code.
- z. “TSX-V” means the Toronto Stock Venture Exchange.

### 3. **Administration.**

- a. This Plan will be administered by the Compensation Committee or if there is no Compensation Committee appointed by the Board of Directors, then by the Board of Directors as a whole (the "Committee"). Except for the terms and conditions explicitly set forth in this Plan, the Committee will have the authority, in its discretion, to determine all matters relating to the award and issuance of Common Stock or the grant of Options to be granted under this Plan, including the selection of individuals to be granted Options, the number of shares of Common Stock to be subject to each grant, the date of grant, the termination of the Options, the term of Options, vesting schedules, and all other terms and conditions thereof. Such authority will also include the authority in the event of a spin-off or other corporate transaction to permit substitution of an Option with a stock option from another company or an award denominated in other than shares of Common Stock. Grants under this Plan to Eligible Participants need not be identical in any respect, even when made simultaneously. The Committee will also determine and approve whether the grant of Options will consist of an Incentive Stock Option as described in Section 422 of the Internal Revenue Code of 1986, as amended (hereinafter referred to as the “Code”), or a Non-Qualified Stock Option, which will consist of any Option other than an Incentive Stock Option.
- b. Options will be evidenced by written agreements (“Option Agreements”) which will contain such terms and conditions as may be determined by the Committee. Each Option Agreement will be signed on behalf of the Company by an officer or officers delegated such authority by the Committee.

- c. All decisions made by the Committee pursuant to the provisions of this Plan and all determinations and selections made by the Committee pursuant to such provisions and related orders or resolutions of the Board of Directors will be final and conclusive, subject to regulatory approval, including the approval of the TSX-V.
- d. No member of the Committee will be liable for any action, failure to act, determination or interpretation made in good faith with respect to this Plan or any transaction hereunder, except for liability arising from his or her own willful misfeasance, gross negligence or reckless disregard of his or her duties. The Company will indemnify each member of the Committee for all costs and expenses and, to the extent permitted by applicable law, any liability incurred in connection with defending against, responding to, negotiation for the settlement of or otherwise dealing with any claim, cause of action or dispute of any kind arising in connection with any actions in administering this Plan or in authorizing or denying authorization to any transaction hereunder.

4. **Eligibility and Participation.** The group of individuals eligible to receive Options will consist only of the following (the “**Eligible Participants**”):

- a. Directors and Officers of the Company,
- b. Employees of the Company and Management Company Employees, and
- c. Consultants of the Company, except as provided herein,

and includes a company of which 100% of the share capital is beneficially owned by one or more individual Eligible Participants.

Consultants will only be eligible to receive Options if they have furnished bona fide services to the Company and such services are not in connection with the offer or sale of securities in a capital-raising transaction.

5. **Shares Subject to This Plan.**

- a. The stock to be offered under the Plan will be shares of Common Stock. The aggregate number of shares reserved for issuance under this Plan will be fixed at 10% of the total number of issued and outstanding shares of Common Stock from time to time, such that the Common Stock reserved for issuance under this Plan will increase automatically with increases in the total number of shares of Common Stock issued and outstanding. The prescribed maximum percentage may be subsequently increased to any other specified amount, provided the change is authorized by a vote of the stockholders of the Company in accordance with the policies of the TSX-V.

If an Option expires, is surrendered in exchange for another Option, or terminates for any reason during the term of this Plan prior to its exercise in full, the shares subject to but not delivered under such Option will be available for Options thereafter granted and for replacement Options which may be granted in exchange for such surrendered or terminated Options. Common Stock which has been issued pursuant to the exercise of Options granted under this Plan since the inception of the

Plan will not be considered to reduce the maximum number of Shares which may be issued to Eligible Participants under Options issued and outstanding pursuant to this Plan.

## 6. Grants of Options

- a. At any time and from time to time prior to the termination of the Plan, Options may be granted by the Committee to any individual who is an Eligible Participant at the time of grant. Options granted pursuant to the Plan will be contained in an Option Agreement in a form approved by the Committee and, except as hereinafter provided, will be subject to the provisions of this Plan, in addition to such other terms and conditions as the Committee may specify.
- b. In addition, for as long as the Common Stock of the Company is listed on the TSX-V, the Company will comply with the following requirements in addition to any other requirements imposed under the policies of the TSX-V:
  - i. Options to acquire more than 2% of the issued and outstanding Common Stock of the Company will not be granted to any one Consultant in any 12 month period, calculated at the date the Option was granted;
  - ii. Options to acquire more than an aggregate of 2% of the issued and outstanding Common Shares of the Company may not be granted to persons employed to provide Investor Relations Activities in any 12 month period, calculated at the date the Option was granted;
  - iii. Options issued to Eligible Persons performing Investor Relations Activities must vest in stages over 12 months with no more than one-quarter (1/4) of the Options vesting in any three-month period;
  - iv. For Options granted to Employees, Consultants or Management Company Employees, the Company will represent that the Optionee is a bona fide Employee, Consultant or Management Company;
  - v. Any Options granted to an Eligible Participant must expire within a reasonable period following the date that the Optionee ceases to occupy such role;
  - vi. No term of any Option may exceed 10 years; and
  - vii. The Company will obtain disinterested shareholder approval in accordance with the policies of the TSX-V in the following circumstances:
    - A. for Options granted to any one individual in any 12-month period to acquire Option Shares exceeding 5% of the issued and outstanding Common Stock of the Company;
    - B. for Options granted to Insiders within a 12-month period to acquire Option Shares exceeding 10% of the issued and outstanding Common Shares of the Company;

- C. for any amendment to or reduction in the exercise price of an Option if the Optionee is an Insider of the Company at the time of the amendment; and
- D. for the Plan, if the Plan, together with all of the Company's previously established and outstanding stock option plans or grants, could result at any time in the grant to Insiders of the Company of a number of Option Shares exceeding 10% of the Company's issued Common Shares.

**7. Incentive Stock Options.**

- a. An Option designated by the Committee as an "Incentive Stock Option" is intended to qualify as an "Incentive Stock Option" within the meaning of Subsection (b) of Section 422 of the Code.
- b. To the extent that the aggregate fair market value (determined at the time the option is granted) of the Common Stock with respect to which Incentive Stock Options (determined without regard to this Subsection 7(b)) are exercisable for the first time by the Optionee during any calendar year (under this Plan and all other Incentive Stock Option Plans of the Company) exceed \$100,000, such Options will be treated as Non-Qualified Options and will not qualify as incentive Stock Options.
- c. Should Section 422 of the Code or regulations or pronouncements thereunder be modified during the term of this Plan, this Plan and any outstanding Options may be amended to conform to such modification, if approved by the Board of Directors, upon recommendation by the Committee.
- d. Notwithstanding the definition of "Fair Market Value" in this Plan, fair market value in connection with any Incentive Stock Options will be determined under the applicable method provided by Regulations under Section 2031 of the Code.
- e. In the case of an Incentive Stock Option: (a) granted to a Eligible Participant who at the time of the grant owns Common Stock representing more than 10% of the voting power of all classes of stock of the Company or any parent or subsidiary of the Company, the per share exercise price will be no less than 110% of the fair market value per share on the date of grant; or (b) granted to any other Eligible Participant, the per share exercise price will be no less than 100% of the fair market value per share of Common Stock on the date of grant.
- f. In the case of an Incentive Stock Option granted to a Eligible Participant who at the time of the grant of such Incentive Stock Option owns stock representing more than 10% of the voting power of all classes of stock of the Company or any Parent or Subsidiary, such Incentive Stock Option may not be exercised after the expiration of five (5) years from the date the Incentive Stock Option is granted.
- g. If Common Stock acquired upon exercise of an Incentive Stock Option is disposed of by an Optionee prior to the expiration of either two years from the date of grant of such Option, one year from the transfer of shares of Common Stock to the Optionee pursuant to the exercise of such Option or in any other disqualifying disposition,

- h. No Incentive Stock Options will be granted under this Plan more than 10 years after the date that the Plan is adopted or approved by the shareholders of the Company, whichever is earlier.
      - i. No Incentive Stock Option will be exercisable more than 10 years from the date it is granted; provided, however, that the case of an Eligible Participant who at the time of grant owns Common Stock representing more than 10% of the voting power of all classes of stock of the Company or any subsidiary, the Incentive Stock Option may not be exercised after the expiration of five (5) years from the date of grant.
- 8. **Term of Option Period.** The term during which Options may be exercised will be determined in the discretion of the Committee, except that the period during which each Option may be exercised will expire no later than on the tenth anniversary of the date of grant.
- 9. **Exercise Price.** Subject to any limitations provided for in Section 7 herein and to any additional limitations imposed by the TSX-V, the price at which shares of Common Stock may be purchased upon the exercise of an Option will be such price as fixed by the Committee, provided that such exercise price will not be less than:
  - a. the Discounted Market Price if the Common Stock is listed on the TSX-V at the time of the grant, and
  - b. 85% of the Fair Market Value if the Common Stock is not listed on the TSX-V at the time of the grant of the Option.

If the shares of Common Stock become listed on another stock exchange, then the exercise price will not be less than the exercise price permitted by such exchange.
- 10. **Payment of Exercise Price.** The Committee will determine the terms of payment by each Eligible Participant for shares of Common Stock to be purchased upon the exercise of Stock Options. Such terms will be set forth or referred to in the Option Agreement. No Option Share may be issued until payment in full of the exercise price has been received by the Company.
- 11. **Form of Exercise Payment.** An Option may be exercised by payment of cash, cashier's check or wired funds, or any combination of the foregoing methods, as approved by the Committee.
- 12. **Vesting; Exercise of Options and Rights.**
  - a. Subject to the provisions of subsection 12(g) herein, an Option will vest and become nonforfeitable and exercisable, pursuant to such vesting schedules as determined by the Committee, but in no event later than 5 years from the date of grant. Eligible Participants may be credited with prior years of service for purposes of any vesting schedules, at the discretion of the Committee.
  - b. Each Option granted will be exercisable in whole or in part at any time or from time

to time during the option period as the Committee may determine, provided that the election to exercise an Option will be made in accordance with applicable Federal laws and regulations, and further provided that each Option will contain a provision that will prevent exercise of the Option unless the Optionee remains in the employ of the Company or its subsidiary at least one year after the granting of the Option. However, the Committee may in its discretion accelerate the vesting schedule of any option at any time.

- c. No Option may at any time be exercised with respect to a fractional share of Common Stock.
- d. As a condition to the exercise of an Option, Optionees will make such arrangements as the Committee may require for the satisfaction of any federal, state, or local withholding tax obligations that may arise in connection with such exercise.
- e. No shares of Common Stock will be delivered pursuant to the exercise of any Option, in whole or in part, until qualified for delivery under such securities laws and regulations as may be deemed by the Committee to be applicable thereto.
- f. Notwithstanding any vesting requirements contained in any Option, all outstanding Options will become immediately exercisable (a) following the first purchase of Common Stock pursuant to a tender offer or exchange offer (other than an offer made by the Company) for all or part of the Common Stock, (b) at such time as a third person, including a "group" as defined in Section 13(d) of the Exchange Act, becomes the beneficial owner of shares of the Company having 25% or more of the total number of votes that may be cast for the election of Directors of the Company, (c) on the date on which the shareholders of the Company approve (i) any agreement for a merger or consolidation in which the Company will not survive as an independent, publicly-owned corporation or (ii) any sale, exchange or other disposition of all or substantially all of the Company's assets. The Committee's reasonable determination as to whether such an event has occurred will be final and conclusive.
- g. Notwithstanding any other provisions of this Agreement to the contrary, the right of any Eligible Participant to receive any benefits hereunder will terminate and will be forever forfeited if such Eligible Participant's employment with the Company is terminated because of his/her fraud, embezzlement, dishonesty, or breach of fiduciary duty. In such an event, all unexercised Options will be deemed null and void.

13. **Transferability of Options.** The right of any Optionee to exercise an Option granted under the Plan will, during the lifetime of such Optionee, be exercisable only by such Optionee or pursuant to a qualified domestic relations order as defined by the Code, or Title I of the Employee Retirement Income Security Act, or the rules thereunder (a "QDRO") and will not be assignable or transferable by such Optionee other than by will or the laws of descent and distribution or a QDRO.

14. **Termination of Relationship.** No Option may be exercised after the Optionee, if a Director or Officer, has ceased to be a Director or Officer or, if an Employee or other Eligible Participant has left the employ or service of the Company or an affiliate of the Company, except as follows:
- a. notwithstanding any other provision of this section 14, if and to the extent provided in the Optionee's employment agreement;
  - b. in the case of the death of an Optionee, any vested Option held by him or her at the date of death will become exercisable by the Optionee's lawful personal representatives, heirs or executors until the earlier of one year after the date of death of such Optionee and the expiry date of such Option;
  - c. subject to the other provisions of this Section 14, including the proviso below, vested Options will expire 90 days after the date the Optionee ceases to be employed by, provide services to, or be a Director or Officer of, the Company or an affiliate of the Company, and all unvested Options will immediately terminate without right to exercise same; and
  - d. in the case of an Optionee being dismissed from employment or service for cause, such Optionee's Options, whether or not vested at the date of dismissal will immediately terminate without right to exercise same,

provided that in no event may the term of the Option exceed 10 years. Notwithstanding the provisions of subsection 14(c), the Board may provide for the vesting of all or any part of the Optionee's Options that are unvested at the date the Optionee ceases to be employed by, provide services to, or be a Director or Officer of, the Company or an affiliate, and may extend the time period for exercise of an Option to a maximum of the original term of the Option, all as the Board deems appropriate in the circumstances contemplated by subsection 14(c).

15. **Changes in Common Stock.** The aggregate number and class of shares on which Options may be granted under this Plan, the number and class of shares covered by each outstanding Option, and the exercise price per share thereof (but not the total price), of each such Option, will all be proportionately adjusted for any increase or decrease in the number of issued shares of Common Stock resulting from a split-up or consolidation of shares of Common Stock, or any spin-off, spin-out, split-up, or other distribution of assets to shareholders, or any like capital adjustment or the payment of any such stock dividend, or any other increase or decrease in the number of shares of Common Stock without the receipt of consideration by the Company, or assumption and conversion of outstanding grants due to an acquisition.
16. **Amendment and Discontinuance.** The Board of Directors may suspend, discontinue, or amend the Plan to reduce the number of shares of Common Stock under option, increase the exercise price, or cancel an Option. Except as contemplated below, the Board of Directors may amend other terms of the Plan only where approval of the TSX-V has been obtained, and if the following requirements are satisfied:
- a. If the Optionee is an Insider of the Company at the time of the amendment, the Company obtains disinterested shareholder approval;
  - b. The Option exercise price can be amended only if at least six months have elapsed since the later of the date of commencement of the term, the date the Company's shares of Common Stock commenced trading, or the date the Option exercise price was last amended;



- c. If the option price is amended to the Discounted Market Price, the TSX-V hold period will apply from the date of the amendment. If the option price is amended to the Market Price, the Exchange hold period will not apply;
- d. Any extension of the length of the term of the Option is treated as a grant of a new Option, which must comply with the policies of the TSX-V. The term of an Option cannot be extended so that the effective term of the Option exceeds 10 years in total. An Option must be outstanding for at least one year before the Company can extend its term; and
- e. The TSX-V must accept a proposed amendment before the amended Option is exercised.

However, the Board may amend the terms of the Plan to comply with the requirements of any applicable regulatory authority without obtaining shareholder approval, including (a) amendments of a housekeeping nature to the Plan; (b) a change to the vesting provisions of an Option or the Plan; and (c) a change to the termination provisions of an Option or the Plan which does not entail an extension beyond the original expiry date.

Notwithstanding the foregoing, no amendment to this Plan will, except with the consent of the Optionee, adversely affect the rights under an Option previously granted.

If the amendment of an Option requires regulatory approval or shareholder approval, such amendment may be made prior to such approvals being given, but no such amended Options may be exercised unless and until such approvals are given.

17. **Term of Plan.** This Plan will be effective as of the Effective Date and will terminate on the earlier of:

- a. The date which is ten years from the Effective Date; and
- b. Such earlier date as the Board may determine (the "Termination Date").

No Incentive Stock Options will be granted under this Plan after the Termination Date.

18. **Compliance with Securities Laws.** No Option will be exercisable in whole or in part, nor will the Company be obligated to issue any Option Shares pursuant to the exercise of any such Option, if such exercise and issuance would, in the opinion of counsel for the Company, constitute a breach of any applicable laws from time to time, or the rules from time to time of the TSX-V or other securities regulatory authority to which the Company is subject. Each Option will be subject to the further requirement that if at any time the Board determines that the listing or qualification of the Option Shares under any securities legislation or other applicable law, or the consent or approval of any governmental or other regulatory body (including the TSX-V), is necessary as a condition of, or in connection with, the issue of the Option Shares hereunder, such Option may not be exercised in whole or in part unless such listing, qualification, consent or approval has been effected or obtained free of any conditions not acceptable to the Board. No shares of Common Stock will be delivered pursuant to the exercise of any Option, in whole or in part, until qualified for delivery under such securities laws and regulations as may be deemed by the Committee to be applicable thereto. In order to ensure compliance with applicable securities laws, upon demand by the Company, the Optionee will deliver to the Company a representation in writing that the purchase of all shares of Common

Stock with respect to which notice of exercise of the Option has been given by Optionee is being made for investment only and not for resale or with a view to distribution and containing such other representations and provisions with respect thereto as the Company may require. Upon such demand, delivery of such representation promptly and prior to the transfer or delivery of any such shares and prior to the expiration of the option period will be a condition precedent to the right to purchase such shares. Each Optionee further acknowledges that any Option Shares issued upon exercise of an Option may be “restricted securities” upon issuance and the certificates representing such shares legended in the event that the issuance of the Option Shares has not been registered by an effective registration statement under the United States Securities Act of 1933, as amended. In addition to any resale restrictions imposed under securities laws, where the exercise price of the Option is based on the Discounted Market Price, any Option Shares will be legended with a four-month hold period under the policies of the TSX-V, which hold will date from the date the Option is granted.

19. **Rights as Shareholder and Employee.** An Optionee will have no rights as a shareholder of the Company with respect to any shares of Common Stock covered by an Option until the date of the issuance of the stock certificate for such shares. Neither the Plan, nor the granting of an Option or other rights herein, nor any other action taken pursuant to the Plan will constitute or be evidence of any agreement or understanding, express or implied, that a Eligible Participant has a right to continue as an Employee for any period of time or at any particular rate of compensation.
20. **Currency.** All references to “\$” herein are to the United States Dollar.
21. **Governing Law.** This Agreement will be governed and construed in accordance with the laws of the State of Nevada without regard to principles of conflicts of law.
22. **Limitations on Sale of Stock Purchased Under the Plan.** The Plan is intended to provide Common Stock for investment and not for resale. The Company does not, however, intend to restrict or influence any Eligible Participant in the conduct of his own affairs. An Eligible Participant, therefore, may sell stock purchased under the Plan at any time he or she chooses, subject to compliance with any applicable Federal or state securities laws. **THE PARTICIPANT ASSUMES THE RISK OF ANY MARKET FLUCTUATIONS IN THE PRICE OF THE STOCK.**
23. **Regulatory Approval.** This Plan will be subject to the approval of any regulatory authority whose approval is required, including any approval of the TSX-V. Any Options granted under this Plan prior to such approvals being given will be conditional upon such approvals being given, and no such Options may be exercised unless and until such approvals are given. The Company's obligation to sell and deliver shares of the Common Stock under this Plan is subject to the regulatory approval required in connection with the authorization, issuance, or sale of such shares.
24. **Other Benefit and Compensation Programs.** Unless otherwise specifically determined by the Committee, grants of Options under the Plan will not be deemed a part of an Eligible Participant's regular, recurring compensation for purposes of calculating payments or benefits from any Company benefit plan or severance program. Further, the Company may adopt other compensation programs, plans or arrangements as it deems appropriate or necessary.
25. **Unfunded Plan.** Unless otherwise determined by the Board, the Plan will be unfunded and will not create (or be construed to create) a trust or a separate fund or funds. The Plan will not establish any fiduciary relationship between the Company and any Eligible Participant or other person. To the extent any person holds any rights by virtue of Options granted under the Plan, such rights will

constitute, general unsecured liabilities of the Company and will not confer upon any Optionee any right, title or interest in any assets of the Company.

26. **Arbitration.** Any controversy arising out of, connected to, or relating to any matters herein of the transactions between an Eligible Participant and the Company (including for purposes of arbitration, officers, directors, employees, controlling persons, affiliates, professional advisors, agents, or promoters of the Company), on behalf of the undersigned, or this Agreement, or the breach thereof, including, but not limited to any claims of violations of Federal and/or State Securities Acts, Banking Statutes, Consumer Protection Statutes, Federal and/or State Anti-Racketeering (e.g. RICO) claims as well as any common law claims and any State Law claims of fraud, negligence, negligent misrepresentations, unjust termination, breach of contract, and/or conversion will be settled by arbitration; and in accordance with this paragraph and judgment on the arbitrator's award may be entered in any court having jurisdiction thereof in accordance with the provisions of Nevada law. In the event of such a dispute, each party to the conflict will select an arbitrator, which will constitute the three person arbitration board. Participants will be required to waive any right to an award of punitive damages. The decision of a majority of the board of arbitrators, who will render their decision within thirty (30) days of appointment of the final arbitrator, will be binding upon the parties. Venue for arbitration will lie in Boise, Idaho.
27. **Shareholder Approval.** This Plan is subject to the approval of the shareholders of the Company. Any Options granted prior to such approval are conditional upon such approval being given, and no such Options may be exercised unless and until such approval is given.



## **THUNDER MOUNTAIN GOLD INC. Code of Business Conduct and Ethics**

### **INTRODUCTION**

This Code of Business Conduct and Ethics (the "Code") applies to Thunder Mountain Gold Inc. and its subsidiaries (collectively, the "Company").

Thunder Mountain Gold expects its employees and officers ("employees") and members of its Board of Directors ("directors") to conduct the Company's business with honesty, integrity, and in compliance with all applicable laws in a manner that excludes considerations of personal advantage or gain.

Each employee and director is expected to read this Code and demonstrate personal commitment to the standards set forth in this Code. This Code is designed to deter wrongdoing and promote:

- honest and ethical conduct, including the ethical handling of actual or apparent conflicts of interest between personal and professional relationships;
- compliance with applicable governmental laws, rules and regulations;
- prompt internal reporting to an appropriate person of violations of this Code; and
- accountability for adherence to this Code.

This Code is not intended to be a detailed guide for all situations. Employees and directors are also expected to comply with the Thunder Mountain Gold Employee Handbook, Company Policies, Company Procedures & Standards, and other workplace rules, as applicable, all of which supplement this Code.

### **RESPONSIBILITIES**

#### **1. COMPLIANCE WITH LAWS, RULES AND REGULATIONS**

It is Thunder Mountain Gold's policy to comply with all applicable laws, rules and regulations. It is the personal responsibility of each employee and director to adhere to the standards and restrictions imposed by those laws, rules and regulations in the performance of his or her duties for the Company, including those relating to accounting and auditing matters, and insider trading.



## 2. INSIDER TRADING

The Company expects all employees, directors, and insiders to abide by all U.S. SEC, Canadian TSX, and any applicable exchange rules with respect to trading in Thunder Mountain Gold Inc. Securities. If an employee or director is in possession of material, non-public information they may not buy or sell shares of the Company. They also are prohibited from passing on such information to others who might make an investment decision based that information.

In addition, employees and directors may not trade in stocks of other companies about which they learn material, non-public information through the course of their employment or service with Thunder Mountain Gold. Any questions as to whether information is material or has been adequately disclosed should be directed to the Company's Corporate Communications Manager.

## 3. CONFLICTS OF INTEREST

Transactions or relationships that constitute a conflict of interest are prohibited as a matter of corporate policy, unless specifically approved by the Board or an appropriate committee of the Board. A conflict of interest occurs when an individual's personal interest interferes with the interests of Thunder Mountain Gold, or when such interest could reasonably be viewed as interfering with the interests of Thunder Mountain Gold. Conflicts of interest can arise when an employee or director takes action or has interests that make it difficult to make objective decisions on behalf of the Company or to perform his or her duties objectively and effectively. Conflicts of interest can also arise when an employee or director, or a member of his or her family, receives improper personal benefits as a result of his or her position in the Company.

Company loans to, or guarantees of obligations of, employees and directors and their family members are likely to create conflicts of interest and, therefore, are prohibited.

Unless approved by management, the Board or an appropriate committee of the Board, no employee or director or any member of his or her immediate family can acquire a financial interest in, or accept employment with, any entity doing business with the Company if the interest or employment could conflict with his or her duties to the Company and the performance of such duties. It is usually a conflict of interest for an employee to work simultaneously for a competitor, customer or supplier of the Company.

Employees and directors, and their immediate family members cannot accept material gifts or favors that could create the appearance that their business judgment could be affected by the receipt of such gifts or favors. Employees and directors, and their immediate family members can accept gifts of nominal value from firms or companies with whom the Company does or might do business with.



It is inappropriate for employees and directors to offer gifts or favors to any employee of a Company competitor, supplier or customer, or a member of such employee's immediate family, if the gifts or favors might place the recipient under any obligation to an employee or director, or to the Company.

#### 4. CORPORATE OPPORTUNITIES

Employees and directors are prohibited from taking, or directing a third party to take, a business opportunity that is discovered through the use of Company property, information or position. Employees and directors cannot use Company property, information or position for personal gain, and cannot directly or indirectly compete with the Company. Employees and directors owe a duty to the Company to advance the Company's legitimate interests when the opportunity to do so arises.

#### 5. CONFIDENTIALITY

In carrying out the Company's business, employees and directors often learn confidential or proprietary information about the Company, its customers, suppliers, or joint venture parties. Employees and directors must maintain the confidentiality of all information entrusted to them, except when disclosure is authorized by the Board or an executive officer of the Company or required by applicable laws or regulations. Confidential or proprietary information includes all non-public information that might be of use to competitors, or harmful to the Company or its customers, if disclosed. The obligation to protect confidential information does not cease when an employee or director leaves the Company.

#### 6. FAIR DEALING

Thunder Mountain Gold conducts business with integrity and in an ethical manner. Each employee and director is expected to deal fairly with our customers, suppliers, competitors, and employees. No employee or director shall take unfair advantage of any other person through manipulation, concealment, abuse of privileged information, misrepresentation of material facts, or any other unfair practice. The knowing or deliberate falsification of any documents or data by an employee or director may result in disciplinary action or termination, and potential civil and/or criminal penalties.

#### 7. PROTECTION AND PROPER USE OF THE COMPANY'S ASSETS

All employees and directors have a duty to protect the Company's assets and ensure the assets' efficient use. These assets include intellectual property such as trademarks, patents, business and marketing plans, engineering projects and designs, salary information and any unpublished financial data and reports. Any unauthorized use or distribution of this information is a violation of this Code.



## 8. ACCURACY OF RECORDS AND REPORTING

All of the Company's books, records, accounts and financial statements must be maintained in reasonable detail, must appropriately reflect the matters to which they relate and must conform both to applicable legal requirements and to the Company's system of internal controls. The making of false or misleading records or documentation is strictly prohibited. The Company complies with all laws and regulations regarding the preservation of records. Records should be retained or destroyed only in accordance with the Company's document retention policies.

## 9. DISCLOSURE CONTROLS AND PROCEDURES

Thunder Mountain Gold is required by SEC and TSX-V rules to maintain effective "disclosure controls and procedures" so that financial and non-financial information we are required to report to the SEC and TSX-V is timely and accurately reported both to our senior management and in the filings we make. All employees are expected, within the scope of their employment duties, to support the effectiveness of our disclosure controls and procedures. It is our policy to promote the full, fair, accurate, timely and understandable disclosure in reports and documents that we file or furnish with the SEC and TSX-V and otherwise communicate to the public.

## 10. INTERACTION WITH PUBLIC OFFICIALS

When dealing with public officials, employees and directors must avoid any activity that is or appears illegal or unethical. The giving of gifts, including in certain instances meals, entertainment, transportation and lodging, to government officials in the various branches of U.S. government, as well as state and local governments, is restricted by law. The foregoing does not apply to personal lawful political contributions.

In addition, the U.S. Foreign Corrupt Practices Act prohibits giving anything of value, directly or indirectly, to officials of foreign governments or foreign political candidates in order to obtain or retain business. Illegal payments to government officials of any country are strictly prohibited.

## 11. WAIVERS OF THE CODE OF BUSINESS CONDUCT AND ETHICS

Any waiver of the applicability of this Code to any conduct by any executive officer or director of the Company requires the approval of the Board or an appropriately designated Board committee and any waiver as so approved will be disclosed promptly to the Company's shareholders.



## 12. REPORTING

Any evidence of improper conduct, violations of laws, rules, regulations or this Code should be reported immediately. If an employee has information regarding actual or suspected violations, he/she should first report that information using The Company's Open Door policy to his/her supervisor or another member of management. Executive officers or members of the Company's Board of Directors should discuss actual or suspected violations with the Board or an appropriate committee of the Board.

It is also a violation of our policy for any employee to communicate a report claiming illegal or unethical conduct which the employee knows to be without foundation.

## 13. INVESTIGATIONS

Suspected violations are to be reported and reported violations will be promptly investigated. The person reporting the violation should not conduct an investigation on his or her own. Employees and directors are expected to cooperate fully with any investigation made by the Company or any of its representatives.

## 14. ACCOUNTABILITY

Employees and directors who violate this Code may be subject to disciplinary action, including termination of employment. Knowledge of a violation and failure to promptly report or correct the violation may also subject an employee to disciplinary action. Some violations of this Code are illegal and may subject the person engaging in the improper activity to civil and criminal liability.

## 15. CODE MODIFICATIONS

This Code of Business Conduct and Ethics supersedes all prior codes of conduct and ethics. Any amendments or modifications to this Code will be publicly disclosed via the Company's website at [WWW.THUNDERMOUNTAINOLD.COM](http://WWW.THUNDERMOUNTAINOLD.COM).



**NI 43-101 TECHNICAL REPORT  
SOUTH MOUNTAIN PROJECT  
OWYHEE COUNTY, IDAHO  
THUNDER MOUNTAIN GOLD, INC.**

**LATITUDE 42° 44' 41.65" N  
LONGITUDE 116° 55' 13.48" W**

**Prepared for:**  
***Thunder Mountain Gold, Inc.***  
*5248 W. Chinden Blvd*  
*Garden City, Idaho 83714*  
*208-658-1037*

**Effective Date March 23, 2010**

**Prepared by:**  
**Gregory P. Wittman, P.G.**  
**Northwestern Groundwater & Geology**

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## **1 SUMMARY**

Northwestern Groundwater and Geology (NWGG) was commissioned by Thunder Mountain Resources, Inc. (TMR), a wholly owned subsidiary of Thunder Mountain Gold, Inc. (TMG), to prepare a Mineral Resource and Mineral Resource Estimate compliant with National Instrument 43-101 (NI 43-101) for the South Mountain Project. The South Mountain property is located in southwestern Idaho in Owyhee County, approximately 70 air miles SW of Boise, Idaho and approximately 24 miles SE of Jordan Valley, Oregon. The Property consists of 17 patented mining claims encompassing approximately 326 acres, 21 unpatented mining claims covering approximately 290 acres owned outright by TMG plus 545 acres of leased private land.

The purpose of this report is to provide an independent estimate of the Mineral Resources at the South Mountain Project and, if warranted, to recommend further work on the property. The Technical Report is compliant with NI 43-101 Standards of Disclosure for Mineral Projects.

Mineralization at the South Mountain Project was first discovered in the form of gold-bearing quartz veins in 1868. Subsequent mining from 1868 to the early 1980's led to the discovery of sulfide mineralization in limestone replacement. The principal metals recovered from the underground workings in this area include silver, zinc, lead, copper and gold. Greater than 80,653 tons of ore have been extracted from over 8,000 feet of underground workings in the district. The major workings include the Sonneman, Golconda, Laxey and Texas tunnel levels and the Bay State shaft and tunnel.

The property consists of a combination of patented and unpatented mineral claims and leasehold interests and was acquired by TMG in September 2007 after completing due diligence work on the title, environmental considerations, and geology. TMG staff have increased the geologic knowledge of the property by rehabilitation the Laxey and Sonneman tunnels for sampling and mapping purposes, drilling two new core holes, and collecting exploration rock chip and soil samples for geochemical testing. TMG has incurred exploration expenditures totaling of \$412,282 during the 2008 and 2009 exploration field

seasons, not counting costs for acquisition, land, title review, company salaries and wages, and some minor contract work.

Exploration activities at the South Mountain Project have outlined a geochemical anomaly associated with an intrusive breccia on the southern side of the property. Soil and rock chip samples have resulted in values ranging up to 701 ppb Au and 5,810 ppb Au respectively.

**1.1 Conclusions**

- The rock types of the South Mountain area are comprised of an isolated exposure of metasedimentary and intrusive rock, surrounded by younger upper-Tertiary volcanic and sedimentary units of the Owyhee volcanic field.
- The indicated resources in the Main Mine area at the South Mountain Project are shown on the following table (Table 1-1).

**Table 1-1 Estimated Indicated Resources at the South Mountain Project**

	Tons	Au oz	Ag oz	Cu lbs	Pb lbs	Zn lbs
Indicated Resources	895,451	36,886	2,978,747	16,326,048	4,426,102	75,557,257
Weighted Average Grade <sup>1</sup>		0.04	3.33	0.79	0.25	4.22

1. A weighted average was used for the grades instead of a simple average since the panel block sizes vary in size and volume. Weighted Average differs from a regular average because calculation of the average is affected by volume. In general, a weight is assigned to individual quantities to ensure an accurate average is calculated.

- The inferred resources in the Main Mine area at the South Mountain Project are shown on the following table (Table 1-2).

**Table 1-2 Estimated Inferred Resources at the South Mountain Project**

	Tons	Au oz	Ag oz	Cu lbs	Pb lbs	Zn lbs
Inferred Resources	2,517,057	24,768	1,948,040	30,630,750	4,339,697	45,687,709
Weighted Average Grade		0.01	0.78	0.61	0.09	0.91

- The indicated mineral resource in the Laxey, Sonneman, Texas mine area provides a potentially minable resource and meets the NI43-101 standards.
- Rock chip and soil samples collected from an area where intrusive breccias cut granitic rock on the southwestern side of South Mountain outline a gold anomaly with a length of approximately 5,000 feet by 1,500 feet. The gold values range up to 701 parts per billion (ppb) in soil samples and 5,810 ppb in rock chip samples.

## **1.2 Recommendations**

- Additional underground geochemical channel-sampling, structural mapping and core drilling are recommended to further outline and confirm the resources outlined in the Main Mine Area workings (Laxey and Sonneman Tunnels) to establish a measured resource. This would require rehabilitating some areas of the underground workings and development of underground drill stations for detailed definition of resources and evaluate potential downdip mineral extensions.
- Geologic mapping, ground magnetic surveys, and structural analysis of the South Mountain Project area is suggested to explore for additional gold and targets similar to the South Mountain gold anomaly or possible faulted offsets to the existing gold anomaly.
- If surface magnetic surveys correlate to areas of known mineralization, then a draped aeromagnetic survey of the South Mountain Property is recommended to search for unexposed mineralized igneous intrusions that are likely responsible for the mineralization exposed at the property.
- Sufficient data has been developed on the gold anomaly that drilling is warranted in specific target areas. Up to five drill holes with a minimum depth of 1,000 feet are recommended as an initial phase, with one or more deeper holes planned once a geologic assessment has been made from the initial round of drilling. Drill access would be done with a road up to 5,000 feet long across the anomaly. Road cut samples on 100-foot centers should be completed along the newly constructed road.

- Drill testing of all targets should be conducted in phases where success in the initial phase of drilling, would be followed by additional data analysis and drilling if warranted.

The following phased budget is recommended to further develop the South Mountain property.

**Proposed South Mountain Project - 2010 Budget**

**PHASE 1**

South Mountain Breccia Drilling	
Road Construction/Site Preparation	\$37,000
Reverse Circulation	
5 holes X1200 feet X \$20 ft	\$120,000
Mobilization/ Demob	\$15,000
Core Drilling	
2 Core holes	\$82,000
Mob-Demob	\$15,000
Geophysics	\$75,000
Permitting/Water Rights	\$3,000
Reclamation Bonding	\$5,000
Analytical Work	\$25,000
Salaries and Overhead	<u>\$111,000</u>
<b>Subtotal Direct Exploration Expenses</b>	<b>\$488,000</b>
10% Contingency	<u>\$ 48,800</u>
<b>TOTAL Phase I</b>	<b>\$536,800</b>

**PHASE 2**

South Mountain Breccia Drilling	
Reverse Circulation	
5 holes X1200 feet X \$20 ft	\$120,000
Mob-Demob	Expensed Ph. 1
Laxey – Sonneman Exploration	
Under Ground Drilling	\$100,000
Surface Core Drilling	
8 Core holes	\$328,000
Mob-Demob	Expensed Ph. 1
Analytical Work	\$36,000
Contract Surveying	\$25,000



Consulting Geologists & Travel	\$44,500
Reclamation Cost Estimate	
<i>Road &amp; Pad Dirt work 7,500 ft X \$2.00</i>	\$15,000
<i>Drill hole Abandonment – Materials</i>	\$10,000
Salaries and Overhead	\$217,074
Caretaker	<u>\$6,000</u>
<b>Subtotal Phase 2 Exploration Expenses</b>	<b>\$901,574</b>
10% Contingency	<u>\$ 90,157</u>
<b>TOTAL Phase 2</b>	<b>\$991,731</b>
<b>Grand Total 2010 Budget</b>	<b>\$1,528,531</b>

## **2 INTRODUCTION**

### **2.1 1.1 Scope of Work and Terms of Reference**

Northwestern Groundwater and Geology (NWGG) has been retained by Thunder Mountain Resources, Inc. (TMR), a wholly owned subsidiary of Thunder Mountain Gold, Inc. (TMG), to prepare an independent Technical Report on the South Mountain Project, a former silver-zinc producer, located Owyhee Count, Idaho (Figure 2.1). The purpose of this report is to provide an independent estimate of the Mineral Resources at the South Mountain Project and, if warranted, to recommend further work on the property. TMR is a Nevada based corporation with offices in Garden City, Idaho and Elko Nevada. The company has properties in Idaho, Nevada, and Arizona.

The sources and data for this report include information from the historic mine production reports, original assay reports for underground drilling and channel sampling, and several published geologic reports for the mine. The geologic reports included Master's thesis reports by Freeman (1982) and Beaver (1986). The mine history and past production were reported by Bowes (1985). Thin section reports describing the rocks at South Mountain were reviewed from Kunita (1987) and Larson (2009). The author visited the property to inspect the underground workings and review the surface geology on October 19, 2009 and October 28, 2009.

This Technical Report is compliant with NI 43-101 Standards of Disclosure for Mineral Projects. The mines at South Mountain were operated from 1898 to the early 1980's with records indicating a total of 60,338 tons of ore shipped (this amount based on smelter receipts plus an estimate of sulfide concentrates shipped). TMG acquired the South Mountain Property in September 2007 after completing due diligence work on the title, environmental considerations, and geology.

This Technical Report is intended for the use of TMG to further develop and advance the project to production stage. This report meets the requirements for NI 43-101 and the Resource and Reserves definitions are as set forth in the

Appendix to Companion Policy 43-101CP, Canadian Institute of Mining, Metallurgy and Petroleum (CIM) – Definitions Adopted by CIM Council, November 2005.

## **2.2 *Qualifications of the Consultant***

This Technical Report has been prepared by Mr. Gregory P. Wittman from the Eagle, Idaho office of Northwestern Groundwater & Geology. Mr. Wittman is a specialist in the fields of geology, exploration, mineral resource estimation and classification, open pit mining, underground mining, environmental, and permitting. Mr. Wittman has worked as an Exploration Geologist since 1973 for several large mining companies. During his career, Mr. Wittman has managed resource calculations for exploration properties and mines for Amax Exploration, Molycorp, Inc., Pegasus Gold Corporation and others. He has experience with Kriged estimates, polygonal estimates, and block-panel estimates. The types of deposits Mr. Wittman has experience with include molybdenum, copper, nickel, lead, zinc, platinum/palladium, chrome, and gold. Mr. Wittman has extensive experience in the mining industry and is a Professional Geologist registered in Idaho and Wyoming. Mr. Wittman does not have any beneficial interest in TMG. Mr. Wittman previously worked for Kleinfelder in their Boise office and was responsible for the Geology and Mineral Resource sections of the non-NI43-101 compliant Kleinfelder technical report that was commissioned to Kleinfelder by TMG in 2008. Mr. Wittman will be paid a fee for the completion of this 2010 report in accordance with normal professional consulting practice.

### **3 RELIANCE ON OTHER EXPERTS**

The author has worked closely with TMG personnel in the preparation of this report, but has independently audited work performed by TMG personnel and consultants to TMR. The author is responsible of all sections of this report and the development of the resource calculation.

The author has relied on TMG staff and historic records to determine the land status is in good standing for the mineral concessions on South Mountain property.

#### 4 PROPERTY DESCRIPTION AND LOCATION

The South Mountain property is located in southwestern Idaho in Owyhee County, approximately 70 air miles SW of Boise, Idaho and approximately 24 miles SE of Jordan Valley, Oregon. The Property is situated wholly within Idaho approximately six miles east of the Idaho-Oregon border (Latitude 42° 44' 41.65" N, Longitude 116° 55' 13.48" W).

The Property consists of 17 patented mining claims encompassing approximately 326 acres, 21 unpatented mining claims covering approximately 290 acres owned by TMG and 545 acres of leased private land. The patented and unpatented claims are wholly owned by TMG. All surface rights are included with the patented and leased private land. There are no royalties associated with the patented or unpatented claims, although the unpatented claims require annual holding fees of \$140 per claim to be paid to the Bureau of Land Management (BLM), plus filings with Owyhee County. Any surface disturbance associated with exploration or mining on the unpatented claims will require approval through the BLM's regulations. The location for the patented claims, unpatented claim, and the leased private land are shown in Figure 4-1. Listings of patented and unpatented claims are included in Tables 4-1 and 4-2.

**Table 4-1 Patented Claims Included in the South Mountain Project.**

<b>Name of Claim</b>	<b>BLM Mineral Survey</b>	<b>Patent No.</b>	<b>Survey Date</b>	<b>Ownership</b>
<b>Illinois</b>	1446	32995	September 17, 1900	Thunder Mountain Gold
<b>Michigan</b>	1446	32995	September 17, 1900	Thunder Mountain Gold
<b>New York</b>	1446	32995	September 17, 1900	Thunder Mountain Gold
<b>Tennessee</b>	1446	32995	September 17, 1900	Thunder Mountain Gold
<b>Oregon</b>	1446	32995	September 17, 1900	Thunder Mountain Gold
<b>Massachusetts</b>	1446	32995	September 17, 1900	Thunder Mountain Gold
<b>Washington</b>	1446	32995	September 17, 1900	Thunder Mountain Gold
<b>Maine</b>	1446	32995	September 17, 1900	Thunder Mountain Gold
<b>Idaho</b>	1446	32995	September 17, 1900	Thunder Mountain Gold
<b>Vermont</b>	1446	32995	September 17, 1900	Thunder Mountain Gold

<b>Texas</b>	1447	32996	September 17, 1900	Thunder Mountain Gold
<b>Florida</b>	1447	32996	September 17, 1900	Thunder Mountain Gold
<b>Alabama</b>	1447	32996	September 17, 1900	Thunder Mountain Gold
<b>Virginia</b>	1447	32996	September 17, 1900	Thunder Mountain Gold
<b>Mississippi</b>	1447	32996	September 17, 1900	Thunder Mountain Gold
<b>Queen</b>	3400	1237144	October 27, 1964	Thunder Mountain Gold
<b>Kentucky</b>	3400	1237144	October 27, 1964	Thunder Mountain Gold

**Table 4-2 Unpatented Claims Included in the South Mountain Project.**

<b>Claim Name</b>	<b>Owyhee County Instrument No.</b>	<b>BLM: IMC Serial No.</b>	<b>Ownership</b>
<b>SM-1</b>	262582	192661	Thunder Mountain Gold
<b>SM-2</b>	262578	192662	Thunder Mountain Gold
<b>SM-3</b>	262581	192666	Thunder Mountain Gold
<b>SM-4</b>	262579	192665	Thunder Mountain Gold
<b>SM-5</b>	262580	192669	Thunder Mountain Gold
<b>SM-6</b>	262577	192664	Thunder Mountain Gold
<b>SM-7</b>	262576	192663	Thunder Mountain Gold
<b>SM-8</b>	262575	192670	Thunder Mountain Gold
<b>SM-9</b>	262574	192671	Thunder Mountain Gold
<b>SM-10</b>	262573	192668	Thunder Mountain Gold
<b>SM-11</b>	262572	192672	Thunder Mountain Gold
<b>SM-12</b>	262571	192667	Thunder Mountain Gold
<b>SM-13</b>	262570	192673	Thunder Mountain Gold
<b>SM-14</b>	262569	192674	Thunder Mountain Gold
<b>SM-15</b>	266241	196559	Thunder Mountain Gold
<b>SM-16</b>	266242	196560	Thunder Mountain Gold
<b>SM-17</b>	266243	196561	Thunder Mountain Gold
<b>SM-18</b>	266244	196562	Thunder Mountain Gold
<b>SM-19</b>	266245	196563	Thunder Mountain Gold
<b>SM-20</b>	266246	196564	Thunder Mountain Gold
<b>SM-21</b>	266247	196565	Thunder Mountain Gold

Annual payments and acreage for the leases for the South Mountain Project are listed in Table 4-3. The lease agreements include a 3% net smelter royalty.

**Table 4-3 Annual Expenses for Leases and Claims at the South Mountain Project**

<b>Owner</b>	<b>Agreement Date</b>	<b>Amount</b>	<b>Acres</b>	<b>Property Taxes</b>
Lowry	Oct. 10, 2008	\$20/acre \$30/acre starting 7 <sup>th</sup> year	376	\$ 7,520 per year \$ 11, 280 per year
Acree	June 20, 2008	\$20/acre \$30/acre starting 7 <sup>th</sup> year	113	\$ 2,260 per year \$ 3,390 per year
Herman	Aril 23, 2009	\$20/acre \$30/acre starting 7 <sup>th</sup> year	56	\$ 1,120 per year \$ 1,680 per year

The Laxey, Golconda and Sonneman tunnels and the Texas Shaft were historically mined for silver, zinc, and lead. All of these historic mines are located within the boundaries of the patented claims owned by TMG. The mineral resource area outlined in the Laxey and Sonneman Tunnels is shown in Figure 4-2. New exploration targets outlined during the 2009 field season are generally located on the leased ground. The exploration target associated with the project is also shown in Figure 4-2. The locations for the tunnels and shafts at the South Mountain project are shown on Figure 4.3.

## **5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY**

### ***5.1 Accessibility***

The Property is accessed from Boise, Idaho west via Interstate 84 to Nampa, Idaho, then south on U.S. Highway 95 from Nampa to Jordan Valley, Oregon. The mine is approximately 24 miles southeast of Jordan Valley via seven (7) miles of paved road and 17 miles of improved gravel road. The property may be inaccessible from December through May due to snow if removal operations are not performed.

### ***5.2 Climate and Vegetation***

The climate in the area is semi-arid with annual precipitation ranging between 20 and 40 inches, depending upon elevation, and occurring principally as winter snowfall. Average annual temperature ranges from 20 to 81 degrees Fahrenheit (F). Vegetation in the area is variable depending upon elevation, aspect, and proximity to water sources. The lower elevations are comprised of sparse sagebrush and grasses changing to Douglas-fir and Aspen to sub-alpine meadow near the summit.

### ***5.3 Local Resources***

The nearest town is Jordan Valley, Oregon located approximately 24 miles northwest of the property. Jordan Valley has a regional population of approximately 450 residents. The property is approximately 70 airline miles and 115 road miles from the urban area of Boise, Idaho and 61 airline miles and 83 road miles from the city of Nampa, Idaho.

### ***5.4 Infrastructure***

The property is accessed by paved and improved gravel road plus 4.5 miles of unimproved dirt road. There are a number of older wooden buildings located on the property, including six worker bunkhouses constructed and utilized by South Mountain Mines. Electrical power would need to be supplied by portable diesel generators, although a three phase power line could be constructed by upgrading



about 10 miles of existing two phase power line plus approximately 4.5 miles of new line from the county road to the minesite. Potable water is currently supplied by a spring house and well.

The access road to and through the Property is used by the public and the Bureau of Land Management to access the South Mountain Lookout, one of last remaining manned lookouts in Idaho.

### **5.5 *Physiographic***

South Mountain is a broad, dome-shaped uplift that is associated with, but is separate from the main Owyhee Mountain range located to the north. South Mountain is separated from the main Owyhee Mountain range by a broad, northwest-trending valley occupied by Jordan, Boulder and Rock Creeks. Topography in the area is generally steep with elevations ranging from 5,000 feet to the summit of South Mountain at 7,801 feet above sea level. Snowmelt and spring water flow on South Mountain is drained radially to the north and northeast by the Williams Creek and South Mountain Creek, respectively, Mill Creek to the east, Buck Creek, West Fork Creek and Juniper Creek to the south, and Soldier Creek and Lone Tree Creek to the southwest and west, respectively.

## **6 HISTORY**

The South Mountain Mining District of southwestern Idaho extends roughly from the headwaters of Williams Creek on the north to the Cabin Creek drainage on the south, encompassing all of South Mountain proper. The principal metals recovered from this area include silver, zinc, lead, copper and gold. Greater than 80,000 tons of ore have been extracted from over 8,000 feet of underground tunnels, stopes and shafts located in the main part of in the district. The major workings include the Sonneman, Golconda, Laxey and Texas Tunnel levels (Main Mine Area) and the Bay State Shaft and Tunnel. Figure 6-1 shows a long section of the Main Mine Area underground workings for the Laxey, Sonneman, and Texas mines.

### **6.1 Pre-1950'S**

Mineralization in the form of gold-bearing quartz veins was first discovered at South Mountain in 1868. Subsequent mining activity led to the discovery of the oxidized silver-lead carbonate replacement veins. Initial mine development in the area included the Original, the Galena, and the Young American. Principal mine development later included the Golconda, the Bay State, the Cottonwood, and the Grant. The South Mountain Consolidated Mining and Smelting Company was formed in 1874 and purchased the principal mines in the district. The company constructed a smelting furnace for processing crude ore. Failure of the company in 1875 led to the abandonment of the district due to the lack of a market for the ore. No further development occurred in the district from 1875 to 1906. In 1906, the American Standard Mining Company worked the standard claim group, shipping 14 tons of ore prior to their shutdown.

The Exploration Company of California completed development of the Sonneman, Golconda, and Laxey levels in 1929, 1930, and 1931, concentrating primarily on the Laxey ore zone. In 1940 and continuing through 1946, the International Smelting and Refining Co. (Anaconda) began metal production from the Laxey ore zone. A total of 53,635 tons of ore were direct shipped to a smelter in Tooele, Utah during this time. The past production of lead, zinc, silver, and copper from 1906 to 1958 is documented by several authors (Bell 1906, and

others). The past production was reviewed from several published documents and past mining records on-file at the TMG offices. These include copies of the smelter receipts for the 53,635 tons of ore direct shipped to the smelter in Tooele, Utah (Bowes, 1985). The Laxey and Sonneman tunnels were visited to view the stopes where the past production occurred. After inspection of the mines by the author, the reported mine production appears to match the volumes removed from the underground tunnels.

## **6.2 1950 to 1980'S**

The Texas Shaft was activated again from 1950 to 1955 under a partnership between Mr. and Mrs. Brandenthaler and Mr. H. F. Anderson (South Mountain Mines). The partnership constructed a single-stage (copper-lead circuit) flotation mill capable of handling 150 tons per day. Additionally, the Defense Minerals Exploration Administration (DMEA) evaluated the property for its strategic zinc potential. Approximately 6,703 tons of ore was extracted during this time. In 1956, the property was leased for two years to the Potash Company of America. The property was worked sporadically until 1968 when the 17 patented claims were consolidated by W.A. Bowes, Inc.

## **6.3 1980 to Present**

The W.A. Bowes Company developed the property from 1977 until the early 1980's when it was purchased by an east coast investment group who formed South Mountain Mining, Inc (SMMI). Following purchase of the property W.A. Bowes remained as managing operator. The property including the 17 patented claims was acquired by TMG in September 2007 after completing due diligence work on the title, environmental considerations, geologic setting and confirmation of underground mineralization along the Laxey Tunnel level. TMG staked 21 unpatented claims around the patented claim block to expand the project land holdings. An additional 542 acres of private leased land was also acquired by TMG.

The 1985 Bowes report presents a resource estimate for the South Mountain Property with the ore reserves calculated during development work for the mining conducted in the 1980s. The 1985 ore resource calculations provide a historical

non-43-101 compliant estimate of resources developed at the time for the Laxey and Sonneman Tunnels.

According to Bowes, a tonnage factor of 10 cubic feet was used in the calculations, as determined from previous mining operations and from their own test mining of approximately 2,500 tons of material. The tonnages represent zones projected 100 feet below the Sonneman level, 200 feet above the Laxey level, and 286 feet between the levels, as well as the Texas zone. Bowes calculated the ore resources for the Sonneman and below zone at 73,320 tons, for the Sonneman-Laxey zone at 152,474 tons; for the Laxey and above zone at 166,521 tons, and the Texas zone at 77,575 tons. The total ore resource tonnage was calculated at 469,890 tons. The weighted average grades were reported as 0.05 opt gold, 7.53 opt silver, 0.94% copper, 1.40% lead, and 9.77% zinc containing an estimated 91,817,000 pounds of zinc, 13,157,000 pounds of lead, 8,339,000 pounds of copper, 3,530,000 ounces of silver and 23,500 ounces of gold. The 1985 Bowes report with the ore resource study is included herein as Appendix A.

The Bowes mineral resource was completed prior to February 1, 2001 and uses classification categories of proven, probable and possible. The author concludes that, following this review of the historical resource estimate completed in 1980 on the Laxey and Sonneman tunnels, the historical estimate can be generally classified as having both Indicated and Inferred Resources as per CIM guidelines (2005). This is based on auditing of the calculation methodology, assumptions, geological continuity, density of drilling, check assays and inter-hole continuity described in the Bowes (1985) report.. It is concluded that historical resource estimates are considered not relevant and will only be used to guide exploration as the TMG develops new data to support a current mineral-resource estimate in accordance with the requirements of NI 43-101. The QP has not done sufficient work to classify the historical estimate as a mineral resource or mineral reserve. The issuer is not treating the historical estimate as a current mineral resource or reserve as defined in section 1.2 and 1.3 of the instrument. The historical estimate should not be relied upon, but can be used for comparison purposes with the new resource estimates outlined in this report.

A non-NI43-101 compliant technical report was completed by Kleinfelder, Inc. dated May 14, 2008. The technical report was compiled to provide an initial independent assessment and validation of the geological and mineralogical data gathered at the site to date and make recommendations for future work.

Additional work was completed on the property by TMG during the 2007, 2008 and 2009 field seasons. The additional field activities by TMG staff included two core holes, rock chip sampling, underground channel sampling, soil sampling, surveying and tunnel rehabilitation. Core drilling completed in 2009 intercepted the extension of mineralization in the DMEA-2 ore zone at depth below the Sonneman tunnel. Soil and rock chip sampling and mapping by TMG staff and other geologists conducting property reviews during 2009 outlined a gold geochemical anomaly south of the historically mined areas around the Laxey and Sonneman Tunnels on the southern side of South Mountain.

## 7 GEOLOGICAL SETTING

The property is located within the Payette Section of the Columbia Plateau Physiographic Region (USGS, 2005). The Payette Section encompasses the Western Snake River Plain and Owyhee Uplands of southwestern Idaho and southeastern Oregon. The Owyhee Uplands, located south of the Owyhee Mountains and extending into northern Nevada and eastern Oregon, is comprised of a generally low relief, deeply dissected plateau where the fault-block topography of the Basin and Range is less prevalent (Orr and Orr, 2000). The plateau was formed from Yellowstone "hot-spot" rhyolite and basalt that show little deformation from faulting or tilting (Wood and Clemens, 1998). The Owyhee Mountains to the north are composed of granitic rocks similar in composition to the Idaho Batholith located primarily in central Idaho.

The rock types of the South Mountain area are comprised of an isolated exposure of metasedimentary and intrusive rock, surrounded by younger upper-Tertiary volcanic and sedimentary units of the Owyhee volcanic field (Figure 7-1). Uplift and subsequent exposure of the older metasedimentary rocks is a result of extensional block faulting and doming. Multiple thin flows of Miocene basalt ramp onto the lower slopes of South Mountain surrounding the intrusive and metasedimentary rocks. Locally, the flows may contain thin interbeds of basaltic and rhyolitic lithic tuffs which may have been locally derived (Ekren and others, 1981, Freeman, 1982). The accumulated basalt flows range up to 1,640 feet thick.

According to Freeman (1982), there are five major plutonic map units in the South Mountain area. The granitic intrusive rocks range in composition from biotite-hornblende quartz diorite to biotite-muscovite granodiorite, microclinal granite, leucocratic granite and quartz monzonite (Ekren and others, 1981, Freeman, 1982). The intrusive rocks at South Mountain are believed to be a satellite pluton to the Idaho Batholith and are radiometrically-dated from Cretaceous to Eocene in age (Bennett and Galbraith, 1975). An intrusive complex of gabbro and hornblende locally intruded by quartz diorite is mapped on the southern and eastern aspects of South Mountain. The gabbroic complex is Cretaceous in age and according to Taubeneck (1971) are common in satellites of the Idaho Batholith.

The metasedimentary rocks consist of a roof pendant of interbedded schist, quartzite, and limestone and marble (undifferentiated and Laxey Marble) and may be either Mesozoic or Paleozoic in age (Ekren and others, 1981). The marble is the host rock to the skarn and replacement vein ore bodies at South Mountain, and comprise approximately one-quarter of the metasedimentary assemblage (Ekren and others, 1981, Bowes, 1985). The metasediments are approximately 1,800 feet thick and appear to have undergone at least two episodes of folding deformation. A variety of dikes ranging in age from Eocene to Oligocene are present on South Mountain. The dikes range in composition from mafic fine-grained basalts to leucocratic pegmatites. Two cross-sections on Figure 7-2 show the generalized geology for the project area. The northeast trend and compositional variation of the dikes suggest concentration from several intrusive/extrusive episodes within a structurally active zone (Bowes, 1985). The depth and lateral extent of the dikes is unknown. Structural elements identified in the South Mountain area include at least two episodes of deformational folding of the metamorphic rocks, and north-northwest trending, high-angle normal and reverse faults of minor regional displacement (Freeman, 1982). The faulting cross-cuts Miocene volcanics and is likely associated with faulting and extension of the Western Snake River plain located to the north-northeast. One large northeast trending fault runs through the South Mountain property and is informally named the Golconda Structure. This structure physiographically separates exposures of the two types of mineralization observed at the property.

## 8 DEPOSIT TYPES

The main focus of this report is to describe and classify the base and precious metal mineralization associated with the past mining operations at the Laxey, Sonneman, and Texas mines. Past mining operations at South Mountain have focused on the zinc, silver and lead mineralization that occurs in the Laxey and Sonneman levels. The Freeman thesis (1982), Bowes report (1985) and Beaver thesis (1986) provide the greatest information regarding mineralization at the property.

Mineral deposits at the South Mountain property in the Laxey and Sonneman ore zones occur as two distinct styles. The first consists of Ag-Pb replacement veins, and the second as skarn-hosted, zinc-rich polymetallic massive sulfide bodies. The ore zones occur as pipe-like bodies within the larger skarn zones, which has been developed within the distinct Laxey Marble. The skarn deposits fall under the broad category of igneous metamorphic deposits and form under high pressure and temperature, usually at great depth below the earth's surface (Park and MacDiarmid, 1975). Skarn deposits characteristically follow a pattern of metamorphism, prograde metasomatism and retrograde metasomatism with associated sulfide deposition (Einaudi, et. al., 1981). The sulfides precipitate due to declining temperatures and local oxidation-reduction reactions with specific zones of earlier skarn patterns, or neutralization of hydrothermal solutions at the marble contact (Einaudi, et. al., 1982).

Ore body mineralization at South Mountain likely occurred during three distinct periods of metamorphism (Freeman, 1982, Beaver, 1986). The first event consisted of prograde regional metamorphism to the amphibolite facies, the second was a thermal contact metamorphism event that strongly recrystallized the carbonate rocks and the third event involved metasomatic or hydrothermal processes (Freeman, 1982, Beaver, 1986). The regional metamorphism likely occurred during emplacement of the Cretaceous Idaho Batholith satellite east of South Mountain. The subsequent contact metamorphism event is thought to occur during the Eocene epoch and included widespread volcanism, plutonism and associated metamorphism (Freeman, 1982). The granitic plutons were emplaced in the South Mountain area at this time. Exploration activities



associated with the granitic intrusions by TMG staff have defined altered intrusive breccias with gold and copper geochemical anomalies that suggest possible mineralization associated with the granitic bodies on South Mountain.

## 9 MINERALIZATION

### 9.1 *Zinc, Silver, Copper and Lead Mineralization*

The main mineralized zones at the South Mountain project occur in the Laxey, Golconda, and Sonneman tunnels. The mineral deposits found in the Golconda, Laxey, and Sonneman tunnels occur as either Ag-Pb replacement veins or as skarn-hosted, zinc/silver-rich polymetallic massive sulfide bodies. The Ag-Pb veins range from narrow stringers to eight feet in width and are open space fillings along existing structures within the marble beds. Unoxidized components of these veins include galena, pyrrhotite, arsenopyrite, sphalerite, chalcopyrite, and pyrite. The veins are predominately oriented northeast with steep southeasterly to vertical dips. The veins are separated from the massive sulfide bodies by the northwest trending Golconda Structure. Historically, the veins contained greater percentages of silver than those in the skarn deposits due to the presence of argentiferous galena, which may represent a more distal mineralization to that occurring within the massive sulfide bodies (Bowes, 1985). The mined portion of the replacement veins were oxidized to high-silver bearing lead carbonate minerals with silver grades of up to 200 ounces per ton reportedly mined from the Bay State Mine.

The zinc-rich polymetallic massive sulfide bodies occur almost entirely within the Laxey Marble, especially those parts which have been altered to hedenbergite-rich skarn (Bowes, 1985). These skarn deposits likely originate from the second contact metamorphism and third metasomatic/hydrothermal events, followed by a collapse of meteoric waters into the system causing retrograde alteration (Beaver, 1986). Based on the minor amount of retrograde alteration the skarn deposit at South Mountain is classified as a deep-end (distal to the known intrusive) member of zinc skarns (Einaudi, et. al., 1982, Beaver, 1986).

Most mineral production at South Mountain has been generated from ore zones occurring in the hedenbergite skarn. With a few exceptions, the skarn is only found east of the Golconda Structure. In the areas of the Texas and Standard mine workings the hedenbergite replaces the Laxey Marble (Freeman, 1982). There are four mineral assemblages recognized in the hedenbergite skarns at South Mountain. According to Freeman (1982) these assemblages include (1)

unmineralized skarn which is composed primarily of hedenbergite, garnet, ilvaite, quartz and calcite; (2) mineralized skarn composed of pyrrhotite, sphalerite, chalcopyrite and galena with clays, actinolite and remnant clinopyroxene; (3) argentiferous galena veins (previously described); and (4) altered skarn composed of fine-grained alteration products of tactite. The sulfides occur as small pods and stringers, but may be concentrated into semi-massive to massive irregular replacement pipes up to 50 feet in diameter (Freeman, 1982). Additionally, according to Freeman (1982), each mineral assemblage occurs in several distinct zones, but no systematic arrangement of zones was observed. Beaver (1986) noted that fractures and bedding induced a strong control on skarn localization, as abundant examples of skarn associated with these features were found. The following description of the mineralized skarn is taken from Freeman (1982):

"Mineralized tactite [skarn] typically contains fresh remnants of garnet and clinopyroxene, except where the sulfides comprise large, massive replacement bodies. Many sulfide stringers are located near the base of radiating clinopyroxene blades. Particular growth zones of andradite [garnet] are commonly preferentially replaced by sulfide minerals. Occasionally, sulfide stringers and cavities filled by ilvaite, quartz, and calcite occur on the opposite sides of clusters of clinopyroxene. However, relations between the sulfides and the ilvaite, quartz, and calcite were not observed. The sulfide minerals in mineralized skarn are pyrrhotite, chalcopyrite, sphalerite, and galena. All the minerals are closely intergrown. Large inclusions of pyrrhotite and chalcopyrite are present in sphalerite. However, many crystals of sphalerite contain veinlets of pyrrhotite and chalcopyrite. Rims of chalcopyrite may occur around sphalerite. Trains of microscopic beads of chalcopyrite in sphalerite are ubiquitous and suggest that exsolution of chalcopyrite has occurred. The sphalerite is metallic, dark grey marmotite, which has high iron content. Galena was identified in only a few sulfide replacement bodies and appears to have replaced the other sulfide minerals.

Pyrrhotite and sphalerite may be disseminated in the unmineralized skarn. A reddishbrown, highly birefringent clay replaces hedenbergite adjacent to the sulfide minerals. The clay is probably an iron and manganese-rich variety of montmorillonite. Actinolite and epidote occur as finely-granular alteration

products of hedenbergite in massive sulfide replacement pipes." Beaver (1986) notes that the Sonneman stock skarn is enigmatic in that it contains pyroxene which is more diopsidic than other skarn from the property; no skarn is developed in the surrounding Laxey marble, and the skarn mineralogy differs from that developed in carbonate, with abundant idocrase, sphene and grossularitic garnet present. Beaver further states that idocrase is typically found near the marble front in calcic skarn systems, and thus appears out of place in relation to the diopsidic pyroxene.

## **9.2 Gold Mineralization**

Exploration mapping and sampling by TMG staff in 2009 outlined an igneous breccia on the south side of South Mountain with an associated gold anomaly. Outcrops of intrusive breccia have been mapped and sampled along an area approximately 5,000 feet by 1,500 feet and the intrusive breccia cuts meta-sediments and granitic rocks at the site. The breccia contains angular and rounded lithic rock fragments that include multi-lithic granitics, schists, quartzites, and minor carbonates contained in a silica-rich, granitic matrix. Thin section studies identified the presence of secondary biotite and variable amounts of potassium feldspar suggesting potassic alteration. Small quartz veinlets cut the breccia where exposed in rock outcroppings and minor amounts of disseminated pyrite is present in the rock fragments in the breccia.

## 10 EXPLORATION

Exploration activities from 2008 to 2009 included the following:

- surveying the claim boundaries,
- rehabilitation of the Laxey and Sonneman adits,
- surveying Laxey and Sonneman Tunnels,
- geologic mapping,
- geochemical sampling,
- development of an initial Technical Report.

The major costs for development and exploration by TMG during 2008 and 2009 were \$412,282 as shown in Table 10-1.

**Table 10-1 Major Expenditures for Exploration and Development at the South Mountain Project.**

<b>Vendor</b>	<b>Cost</b>	<b>Purpose</b>
<b>REI Drilling</b>	\$ 200,578	Core Drilling at South Mountain in 2008
<b>Dennis Lance</b>	\$ 63,115	Consulting Geologist -on site geology, mapping, and drill core logging
<b>Timberline Surveying</b>	\$ 50,529	Survey company that completely reestablished the grid and property boundaries at South Mountain
<b>Warner Construction</b>	\$ 44,959	Underground Adit collar and maintenance work.
<b>Centra Consulting</b>	\$ 29,448	Environmental Consultants establishing baseline for water quality
<b>ALS CHEMEX</b>	\$ 23,653	Outside lab where all assays are conducted
<b>Total</b>	<b>\$ 412,282</b>	

### 10.1 Surveying

A priority portion of the patented claims and the leased ground were surveyed during the 2008 field season. Twenty-one new unpatented claims were added to the property holdings. The surveyed locations for claim corners and leased land boundaries from past surveys were checked and confirmed. The author believes the current, updated survey information is valid and outlines accurate claim and land boundaries.

Other activities during the 2008 field season included a survey of the Laxey underground workings to the point that the surveys by SMMI could be confirmed. This was essential to develop drill targets to test downdip extensions of the ore shoots exposed in the underground workings.

## **10.2 Laxey and Sonneman Adit Rehabilitation**

The Sonneman portal and workings were rehabilitated during 2008. The portal improvements included addition of a lockable steel door system on the Laxey and Sonneman portals.

## **10.3 Geologic Mapping**

Geological mapping during 2009 outlined an igneous intrusive breccia on the south side of South Mountain. Outcrops of intrusive breccia have been mapped along an area approximately 5,000 feet by 1,500 feet and cuts the mixed meta-sediments and granitic rocks at the site. The breccia contains angular and rounded lithic rock fragments that include schists, quartzites, carbonates, and granitic rock contained in a silica-rich, granitic matrix. Small quartz veinlets cut the breccia where exposed in rock outcroppings. Five (5) polished thin sections and one (1) polished section from the South Mountain project were sent to LTL Petrographics (Dr. Lawrence Larson) in Sparks, Nevada for petrographic analysis. Samples collected from the intrusive breccia analyzed by Dr. Larson confirm the rocks have been potassically altered with the formation of variable amounts of K-spar and secondary boitite. The full report on the petrographic study can be found in Appendix B

## **10.4 Geochemical Sampling**

Rock chip samples collected by TMG staff from the intrusive breccia and the surrounding rocks resulted in gold values ranging from 490 ppb ppm to 8,810 ppb. Additional rock chip samples were collected by Kinross geologists in 2009 during an evaluation of the property. Kinross collected rock chip samples from the breccia at South Mountain that produced gold values closely matching the rock chip geochemical values collected by TMG staff. The locations of the rock chip samples collected by TMG are plotted on the map shown in Figure 10-1. The gold values of the rock chip samples collected by TMG are shown on Figure 10-2. The gold values increase in rock chip samples collected from along the contact of the intrusive breccias. Figure 10-3 shows a comparison of the rock chip samples collected by TMG and by the Kinross staff. Geochemistry results for the rock chip samples are included in Appendix C

A soil sample program was conducted in the area of the intrusive breccia on South Mountain by TMG staff and contract geologist Dennis Lance. Soil samples collected from a 2008 orientation sample grid over the breccia zone resulted in gold values ranging up to 310 ppb. During the 2009 field season, an expanded soil grid was completed over the breccia zone. Figure 10-4 shows the location and results for gold in soil samples collected from South Mountain. The soil samples were collected from a grid oriented west-northwest with a sample spacing of 100 feet along the lines. The soils were collected from the c-soil horizon and sieved to 80 mesh. Gold values in the soil samples ranged up to 701 ppb. Copper in soils collected from the South Mountain sample grid is shown in Figure 10-5. Molybdenum in soil samples is shown in Figure 10-5. Geochemistry for the soils samples is included in Appendix D

There has been insufficient exploration to define a current resource associated with the gold soil anomaly at South Mountain and the Company cautions that there is a risk further exploration will not result in the discovery or delineation of a resource.

### ***10.5 2008 Technical Report***

A non-NI43-101 compliant technical report was completed by Kleinfelder, Inc. during 2008. The technical report was compiled to provide an initial independent assessment and validation of the geological and mineralogical data gathered at the site to date and make recommendations for future work. The Kleinfelder technical report was an initial mineral resource evaluation did not constitute a 43-101 compliant ore resource and was meant only as a tool for further development of the South Mountain Property.

## 11 DRILLING

A total of 2,085 feet of core was drilled in two exploration holes during 2008 in the Texas core hole and the DMEA-2 core hole. The locations of the two core holes are shown on Figure 11-1. The Texas core hole was collared on the north side of South Mountain and drilled to a depth of 1,222 feet, targeting the deeper reaches of the Texas ore zone. The Texas core hole was drilled at an angle of -60 ° and at a bearing of 195 °. The drill hole was terminated in calcsilicate altered schist possibly near to the original target ore zone. A down-hole survey indicated the boring flattened out and deviated away from the targeted ore zone.

Drill hole DMEA-2 was drilled in 2008 to a depth of 863 feet and targeted the downdip extension of mineralization below the DMEA-2 ore zone that is readily identifiable on both the Laxey and Sonneman levels. This hole was drilled at an angle of -86 ° at an azimuth of 42°. The extension of the DMEA-2 ore zone was intersected in two zones at 657 to 669.5 feet and 687 to 674.5 feet contained within skarn with an approximate width of 162 feet. The mineralized intercepts intersected in DMEA-2 confirms the extension of the DMEA-2 ore zone to a depth of 300 feet below the Sonneman level. The assay information for the mineralized intercepts is included in Appendix E. Table 11-1 lists the gold, silver lead, and zinc values encountered in these intervals.

**Table 11-1 Mineralized Intercepts from DMEA-2.**

Interval	Length	Au opt	Ag opt	Zn %	Cu %	Pb %
657'-669.5'	12.5 feet	0.066	1.46	7.76	0.276	0.306
687'-704.5'	17.5 feet	0.129	1.89	2.18	0.183	0.152

The DMEA-2 core hole successfully encountered the mineralized DMEA-2 ore zone extending the projected mineralization an additional 300 feet below the Sonneman tunnel. The mineralization intercepted in DMEA-2 suggests the gold values may be increasing with depth compared to the mineralization found in the Sonneman and Laxey tunnels. The width of the mineralized zone drilled in the DMEA-2 core hole is approximately 40 feet in which the significantly mineralized intercepts are reported in Table 11-1.



## 12 SAMPLING METHOD AND APPROACH

Bowes (1985) initiated a systematic method of surface soil and rock chip sampling to further delineate known mineralized zones and detect unknown zones. To perform the controlled geochemical sampling, three surface study grids were set on the property. Geochemical data was collected from C-horizon soils and analyzed using Emission Spectrography. A total of 1,865 soil sample and 326 rock chip data points were collected between 1981 and 1984. The soil and rock chip data indicate localized surface expression of mineralized zones found at depth within the property.

In 2008 and 2009, TMG performed geologic sampling and rock chip sampling to confirm the earlier Bowes sampling programs and to expand the surface geochemical coverage. Rock chip samples from rock outcroppings at the South Mountain Project were collected from selected sites and lithologies. Approximately five to seven pounds of rock chips were collected from each sample site. The rock chip samples were shipped to ALS CHEMEX for sample preparation and geochemical analysis.

A soil sample grid was established on South Mountain to test the area around the intrusive breccia. The soil grid lines were set on a N60W direction and samples were collected on 200 foot intervals with priority spacing on the areas of favorable geology. The grid was oriented N60W so that it would be perpendicular to the major structures in the area. The 200-foot spacing was selected to collect initial samples with the potential of closer spaced sampling in zones with anomalous soil samples. The soil samples from the sampling grid on South Mountain were collected from the C-soil horizon and sieved in the field to -80 mesh. Approximately 80 to 100 grams of the sieved soils sample were placed in 4X7-inch soil sample bags. A total of 236 soil samples were collected from the grid during the 2008 and 2009 field seasons. The soil grid covered an area approximately 5,600 feet by 2,300 feet, or 325 acres.

The core drilled in DMEA-2 had a recovery rate of approximately 95% and provided a highly representative sample of the rock encountered in the drill hole. Relevant samples collected from DMEA-2 are listed in Table 11-1. Core from the

mineralized section of the DMEA-2 core hole was cut in half using a diamond rock saw. One half of the ore was saved for logging purposes and the other half was used for geochemical sampling. The core was sampled with intervals ranging from 1 to 3.7 foot lengths based on lithology and mineralogy changes. The estimated true width of the mineralized section of DMEA-2 is approximately 40 feet. The core samples were sent to ALS CHEMEX for sample preparation and analysis.

The author concludes that the sampling methods and approach conducted by TMG staff followed sound geologic field practices and provide representative samples for the project.

### **13 SAMPLE PREPARATION, ANALYSES AND SECURITY**

All rock, soil, and core samples reported during the 2008 and 2009 field programs were collected by Mr. Pete Parsley, M.S. and Vice President of Exploration for TMG, who kept all samples personally secured until shipped to the analytical labs. Approximately two to seven pounds of rock chips were collected from each sample site. The rock chip samples were labeled and stored in cloth sample bags. The rock chip samples were stored by Mr. Pete Parsley until being shipped to ALS CHEMEX Labs. The gold in the rock chip samples were tested using Method codes AA23 and GRA21. The other elements in the rock chip samples were tested using method code ME-MS41.

The soils samples were collected from 12 to 18 inch deep holes to expose the C-soil horizon. The samples were sieved to -80 mesh and approximately 80 to 100 grams of the sieved soils sample were placed in 4X7-inch soil sample bags. The soil samples were stored by Mr. Pete Parsley until shipped to ALS CHEMEX by TMG personnel. The gold in the soil samples were tested using Method codes AA23 and GRA21. The other elements in the soil samples were tested using method code ME-MS41.

The core from the 2008 and 2009 drilling programs was transported to the TMG Garden City, Idaho office for sample preparation. The core was cut in half using a diamond saw. One half of the ore was saved for logging purposes and the other half was used for geochemical sampling. The core was sampled with intervals ranging from 1 to 3.7 foot lengths based on lithology and mineralogy changes. The core samples were sent to ALS CHEMEX for sample preparation and analysis. The gold in the core samples were tested using Method codes AA23 and GRA21. The other elements in the core samples were tested using method code ME-MS41.

The sample preparation for all of the TMG soil, rock chip, and core sampling programs was completed by ALS CHEMEX at their preparation facility in Elko, Nevada and analyzed at their lab in Vancouver, British Columbia.

The ALS CHEMEX laboratory in Vancouver, British Columbia analyzed the soil samples for gold using method code AA23, GRA21 and ME-MS41 for other elements. Method code AA23 is a fire assay procedure with an Atomic Absorption Spectroscopy analytical method. In this procedure a prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents as required, inquarted with 6 mg of gold-free silver and then cupelled to yield a precious metal bead. The bead is digested in 0.5 mL dilute nitric acid in the microwave oven, 0.5 mL concentrated hydrochloric acid is then added and the bead is further digested in the microwave at a lower power setting. The digested solution is cooled, diluted to a total volume of 4 mL with de-mineralized water, and analyzed by atomic absorption spectroscopy against matrix-matched standards.

Method code GRA21 is a fire assay procedure that uses a gravimetric analytical procedure. In this method, a prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents in order to produce a lead button. The lead button containing the precious metals is cupelled to remove the lead. The remaining gold and silver bead is parted in dilute nitric acid, annealed and weighed as gold. Silver, if requested, is then determined by the difference in weights.

Method code ME-MS41 used to test the elements other than gold, is a geochemical procedure where a prepared sample (0.50 g) is digested with aqua regia in a graphite heating block. After cooling, the resulting solution is diluted to with deionized water, mixed and analyzed by inductively coupled plasma-atomic emission spectrometry. Following this analysis, the results are reviewed for high concentrations of bismuth, mercury, molybdenum, silver and tungsten and diluted accordingly. Samples are then analyzed by ICP-MS for the remaining suite of elements. The analytical results are corrected for inter-element spectral interferences.

ALS LABORATORY GROUP, Minerals Division, ALS CHEMEX in Vancouver, British Columbia is an accredited Laboratory (No. 579) the conforms with requirements of CAN-P-1579 , CAN-P-4E (ISO/IEC 17025:2005)) of the Standards Council of Canada. The assay results for the samples for rock chip,

core and soil sample collected by TMG were checked by duplicate samples and internal blank samples tested by ALS CHEMEX. Duplicate sample results for soil samples and one core sample are listed in Table 13-1. The comparisons of the duplicate assays show that the errors are within acceptable range.

**Table 13-1 Comparison of Duplicate Samples from ALS CHEMEX Laboratories**

Sample Type	Sample No.	Au-ppm Au- AA23	Ag-ppm ME- MS41	Au-ppm Au-AA23	Ag-ppm ME-MS41
		<i>Original</i>		<i>Duplicate</i>	
<b>Soils</b>	89773	0.045		0.099	
	89775		0.33		0.35
	89786	<0.005		<0.005	
	89790		0.36		0.29
	89806	<0.005		0.009	
	89826		0.32		0.31
	90705	0.352		0.342	
	90011	0.25			0.25
<b>Core</b>	90237		2.91		2.98

It is the author opinion that the sample preparation, security, and analytical procedures for the 2007, 2008 and 2009 sampling program were adequate for the current use of the data. However, the author suggests TMG expansion the QA/QC program in the more extensive planned 2010 drilling and sampling program.

## 14 DATA VERIFICATION

Channel samples were collected from mineralized ore zones found in the Laxey and Sonneman tunnels by South Mountain Mining, Inc. (SMMI) during the 1980's. In 2008, TMG staff compiled the results underground channel sampling completed by SMMI on the Laxey and Sonneman Levels. The SMMI sampling program included duplicates samples from the ore zone in the Laxey and Sonneman tunnels that were submitted to separate laboratories by SMMI for

data verification. Splits of the samples were submitted to both Skyline Labs Inc. in Wheatridge, Colorado and Specomp Services in Boise, Idaho. Table 14-1 shows the results and comparison of assay results. The original assay documents for the sampling completed by SMMI are stored at the Garden City, Idaho TMG office and available for inspection. The original assay files were found to be in good order and well maintained.

TMG conducted a sampling program to re-sample selected channel samples collected earlier in the Texas, DMEA-1, DMEA-2, DMEA-3, and DMEA-4 Ore Zones in 2008 as part of due diligence during the acquisition period of the property. The re-sampled channel samples were collected in the same locations as SMMI samples as a comparison within known mineralized zones. Assays of the new samples were compared to the original samples collected by SMMI. The results of the sample comparison are shown in Table 14-2 in Section 24. The original and duplicate sample locations were examined by the author during October of 2009. The TMG channel samples are clearly marked by painted labels on the tunnel ribs.

The re-sampled channel samples collected by TMG show similar values when compared to the original samples collected by SMMI (Table 14-2). The mineralization in the channel sample locations is generally intergrown sulfide minerals that include pyrrhotite, chalcopyrite, sphalerite, and galena. Large inclusions of pyrrhotite and chalcopyrite are often present in sphalerite. A close match between the TMG and the SMMI sampling would be difficult due to the heterogeneous mixture of sulfide minerals present in the mineralized zone. The TMG sample values tend to be conservative. The TMG samples were selected in the database to be used for mineral resource estimates. There were no twinned holes completed by TMG during the 2008 and 2009 field programs. Most of the SMMI underground drilling was conducted from drill stations within mineralized ore shoots and were only drilled short distances away from the tunnel. The re-sampled channel samples in some cases parallel the drilling. During the underground inspection the author observed that mineralized zones were consistent and well exposed along the tunnel ribs and faces. It can be assumed that the channel samples collected along the tunnels are representative of the mineralized zones drilled and projected away from the tunnels. The author

suggests twinning selected SMMI drill holes during future field programs. It may be beneficial to twin the selected holes using a core drill as most of the holes drilled by SMMI were by jackleg long, a method that may actually reduce the value of the cuttings by washing some of the finer sulfide fraction out of the material being cut by the drill. It is the opinion of the author that the assay values for drilling and channel sampling in the database are valid and is adequate for this study.

## **15 ADJACENT PROPERTIES**

Adjacent properties were not examined or included in this report.



## 16 MINERAL PROCESSING AND METALLURGICAL TESTING

Metallurgical testing was completed for the property in 1987 by SMMI. The metallurgical report for this property is included in this document for informational purposes only and was not used in the resource calculations. Select samples collected from the South Mountain Mine were sent by Bowes, Inc. to Dawson Metallurgical Laboratories, Inc., in Murray, Utah in 1987. The scope of the metallurgical was limited to flotation testing to provide data for net smelter evaluation. The Dawson metallurgy study included the analysis of six bulk samples collected from the DMEA, Anderson, and Texas ore zones. The six samples were composited for testing purposes with the resulting assay listed in Table 16-1.

**Table 16-1 Head Assay Results: Composite Sample, William A. Bowes, Inc.**

	Au opt <sup>1</sup>	Ag opt	Cu %	Pb %	Zn %	Fe 5
<b>Assayed Head</b>	0.19	6.10	0.50	2.30	16.35	27.9

1. opt – ounces per ton

The composite sample responded well to selective flotation as shown in Table 16-2.

**Table 16-2 Flotation Test Results Summary**

	Wt %	Assay					Distribution %				
		Au opt	Ag opt	Cu%	Pb%	Zn%	Au	Ag	Cu	Pb	Zn
<b>Pb Cl Conc</b>	4.21	2.93	118.50	7.87	53.60	4.20	61.10	77.80	57.40	91.40	1.10
<b>No. 3 Zn Cl Conc</b>	27.22	0.08	1.00	0.25	0.10	52.80	10.80	4.20	11.70	1.10	85.70
<b>Zn Scav Tails</b>	26.97	0.01	0.20	0.04	0.05	0.30	1.30	0.80	1.90	0.60	0.50

The 1987 Dawson metallurgical study was limited to the flotation testing and did not include development of flow sheet optimization. The complete Dawson metallurgical test is included in Appendix F.

## **17 MINERAL RESOURCE ESTIMATES**

The mineral resource estimates in this report were completed by Gregory Wittman of NWGG. Mr. Wittman has been an Exploration Geologist since 1973 for several large mining companies and specializes in the fields of geology, mineral exploration, mineral resource estimation and classification. He has prior experience with TMG and the South Mountain mines working for Kleinfelder, Inc. where he authored the Geology, Mineralization, and Mineral Resource sections of a non-43-101 compliant technical report. Mr. Wittman does not have any beneficial interest in TMG and will be paid a fee for this work in accordance with normal professional consulting practice.

The mineral resource estimates in this report are limited to examination of the mineralized material contained in the Laxey, Sonneman, and Texas Mines (Main Mine Area). This mineral resource estimate is based on resources calculated on February 15, 2009. The mineralization in the Main Mine Area is polymetallic in nature with variable values for silver, gold, copper, lead, and zinc. The metal with the most consistent value within the mineralized areas along the Laxey and Sonneman tunnels was silver. Silver was selected to be used as the element defining the limits and cutoff grade containing the ore zones.

The resource estimate outlines the indicated resources and an estimate of the inferred mineral resources which are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves. Furthermore, there is no certainty that the results projected in the resource estimate will be realized and actual results may vary substantially. Exploration targets outside of the Main Mine Area are not included in this resource (i.e. South Mountain geochemical soil anomaly). The effective date of this resource estimate is February 15, 2009,

### ***17.1 Verification of Historical and New Data***

#### **17.1.1 Drilling Data**

Historic drill holes Laxey and Sonneman tunnels were completed by SMMI from 1980 to 1987. The historic drilling included both core holes and long-hole

borings from drill stations along the tunnels. The SMMI holes were drilled from drill stations generally within the underground workings and targeted the main mineralized zones and their holes were drilled short distances into the rock to define the limits of the mineralization. Deviation in the SMMI drill holes would be minimal due to the short length of most of the borings. TMG did not drill any twinned holes to verify the SMMI drill assays in the existing tunnels, however, TMG did drill DMEA-2 that intercepted the down-dip extension of the DMEA-2 ore shoot. The mineralization intercepted in the DMEA-2 core hole verifies the down-dip extension of the DMEA-2 ore zone to a depth of approximately 300 feet below the present Sonneman Tunnel level. The locations of the drill holes used in the resource evaluation are plotted on Figure 17-1. The highest density of drilling is highest within the more highly mineralized zones. The average spacing of boring in the Sonneman Level is approximately 25 feet along the tunnel. The boring spacing along the Laxey level averages approximately 50 feet along the tunnel. A listing of the drill data used in the resource calculations is shown in Table 17-1

### **17.1.2 Channel Sample Data**

Channel samples were also collected by SMMI during the period of 1980 to 1987 from the Sonneman tunnel. TMG did re-sample selected channel samples in mineralized sections of the Laxey and Sonneman tunnels. The re-sampled channel samples confirmed the mineralization and provided values within reasonable comparative ranges for gold, silver, copper, lead and zinc. The comparison of the results between the SMMI and TMG samples are shown in Table 14-2. A total of 59 channel samples collected along the Sonneman tunnel were plotted and included in the resource estimation. The channel sample locations are plotted in Figure 17-2. The TMG samples tended to have assay results lower than the SMMI channel samples. The TMG channel samples were used in place of the SMMI sample values where applicable in this resource calculation to provide a more conservative estimate. A listing of the channel sample data used in the resource calculations is shown in Table 17-2.

### **17.1.3 Data Verification**

The author conducted an underground inspection of the Laxey and Sonneman tunnels and the associated mineralized zones on October 19 and 28, 2009. The mineralized zones in both tunnels were well defined and easily observed. Many of the original channel sample locations were marked on the tunnel faces. The 2008 TMG sample locations were clearly marked. The vertical contiguous nature of the ore is well represented in the mined Texas ore shoot on the southeastern extents of the main mine system.

The locations of both the historical and recent drill holes and the channel samples were tied to the 2008 survey completed by TMG. In 2008, TMG compiled all of the assays from the drilling and channel sampling into a data base. The assay values for gold, silver, copper, lead and zinc from samples collected from the drill holes and channel samples are listed in Tables 17-1 and 17-2, respectively.

The SMMI and TMG assay records were inspected by the author and compared to the TMG database that has been compiled for the property. There were no inconsistencies found in the TMG database when compared to the original laboratory assay reports. The resampled channel sample values collected by TMG verified the location of the mineralized zones. The channel samples collected by SMMI and TMG both correlated well to the assays of drill hole assays collected from site adjacent to the channel samples. Variations in metal values comparing the TMG samples and the SMMI samples in Table 14-2 are likely attributed the smaller size sample collected by TMG and the variation in sulfide mineral assemblages within the mineralized zones. The assay data from the DMEA-2 core samples suggest the silver and gold values increase with depth. It is the opinion of the author that the assay values for drilling and channel sampling in the database is valid and can be used in this mineral resource estimation with a high level of confidence.

### **17.2 2009 Resource Calculations**

The mineral resource calculations in this report were completed February 15, 2009. The resource calculations included a review and update of similar estimations for the site by the author and others. A non-43-101 compliant technical report that included a panel model ore estimate of the mineral resource

at South Mountain was developed by Mr. Gregory Wittman and others of Kleinfelder, Inc, dated May 18, 2008. The Kleinfelder mineral resource estimate was completed using historic assay data from past surface and underground drilling programs, as well as channel samples collected from the mine by SMMI. The assay information included in the resource calculation used values for gold, silver, copper, lead and zinc. The locations and values for the samples were initially plotted for each level of the mine to determine if the mineral resource could best be estimated by the polygonal bench method or with vertical panels. Although the non-NI43-101 compliant 1985 Bowes resource study utilized polygonal methods to determine volume and mineralization, it was determined for the 2008 Kleinfelder study that vertically oriented panels would best represent the vein-like structure of the mineralization within the skarn and allow for offsets due to faulting.

The resource calculations for this study were completed on February 15, 2009. The ore resource estimation performed for the 2009 resource estimation includes the initial resources outlined by Mr. Wittman of Kleinfelder in the 2008 non-compliant technical report and updates the to the resource with information from the 2009 drilling program and underground channel sampling by TMG staff. The resource calculation incorporates assays from 124 of historic drill holes and the 2009 DMEA-2 core hole.

### **17.2.1 2009 Block-Panel Resources Estimation**

The 2008 Kleinfelder non-43-101 compliant ore estimate outlined twelve primary panels based on the continuity of the silver assays on the Golconda Level, the Laxey Level, and the Sonneman Level of the mine. For this study, the 2008 resource estimate was recalculated with updated assay values after valuation of the data base and addition of the new data from core hole DMEA-2. The panels that were developed using silver assay values as a guide are shown in Figures 17-3 through 17-6.

The assay values for gold, silver, copper, zinc, and lead were plotted for each of the drill holes for both the Laxey and Sonneman tunnels. Silver assay data was used as the guide to determine the mineralization width and trend on the Laxey and Sonneman levels of the mine. Silver values appear to be more consistent

when compared to the base metals, which tend to exhibit vertical and horizontal zonation. A silver cutoff grade of 1.0 opt was used to outline the primary high-grade panels representing the indicated resources, which generally range from five (5) to 15 feet in width along the drifts. Silver values, ranging from 0.9 to 0.1 opt, and occur extending laterally approximately 10 feet on either side of the main vein system were included in the subset lower-grade panels representing the inferred resources. The panel width for this ore estimation was set at 10 feet for the higher-grade central panel or indicated resource. The lower grade lateral panels representing the inferred resource extend outward from the high-grade panels to a perpendicular distance of 10 feet on either side.

It is assumed for this model, the DMEA-1, DMEA-2, DMEA-3, and DMEA-4 Ore Zones found in both the Laxey and Sonneman tunnels are connected down dip and up-dip between the levels. All of the panels outlined in the resource estimation are oriented along the strike and dip mapped of the skarn body that contains the base-metal mineralized zones (ore shoots). The high grade silver ore outlined between the 6,860 (Sonneman) and 7,160 (Laxey) foot elevations appear to be vertically connected with possible faulted offsets perpendicular to the strike of the vein. It is assumed for this resource calculation that the vein on the 6,860 and 7,160 foot elevations are vertically connected and form a continuous 10-foot wide high-grade panel steeply dipping to the southwest. The down-dip extent of the panel is assumed to be continuous between the 6,860 and 7,160 foot elevations at the Texas zone and the DMEA zones (Figure 17-3).

The central panel represents the indicated mineral resources. The silver values drop at the 7,160-foot elevation compared to the silver values on the 6,860-foot elevation in the Anderson zone. The Anderson zone Panel 5a is assumed to be present only on the 6,860 foot elevation and is not projected to 7,160 feet (Figure 17-4). The vertical panels were divided into upper and lower sections based on vertical differences in the assay data. The vertical differences resulted in the division of the panels into five separate sections each with separate ore grades. The two (2) subset panels adjacent to each primary panel represent the indicated mineral resources.

The total estimated resources in the panel model resulted in 974,376 tons of indicated resources and 2,517,056 tons of inferred resources. The tonnage estimate is based in using a specific gravity of 4.5 resulting in 280.9 lbs/cubic feet based on the amounts of pyrite and sphalerite found in the ore zones. Historic mine maps and mining records provided by TMG outlined much of the past mining activity at the South Mountain Mine. The author visited the property to inspect the underground workings and past production on October 19, 2009 and October 28, 2009. The documented mine production records appear to match the estimated mined volumes in the underground tunnels at the site. The mined tonnages were estimated from the historic records and subtracted from the new panel resource calculation. The past mining activity concentrated on the higher grade ore in the mine, so it is assumed that mined material should be subtracted from the higher grade panels which include the indicated reserves. Approximately 216,611 tons of total material was estimated to have been mined from the existing 8,000 feet of underground workings. The indicated resource, adjusted for material previously mined, is calculated at 841,407 tons.

The main high-grade panels are shown on Figures 17-3 – 17-6 identified with an "a" designation. Table 17-3 lists the tonnages and grades for all of the block-panel indicated resources and the respective grades. The lower-grade resource panels located on the south side of the high-grade panels are designated with a "b" on the panel. The lower-grade panels found on the north side of the higher-grade panels are designated with a "c" following the panel number. Table 17-4 lists all of the inferred resource block-panels and the respective grades. Figure 17-6 illustrates the location of all the modeled panels in relation the existing underground workings.

The mineral resource estimate was projected below the modeled panels to a depth of 150 feet. Although one of the ore shoots, the Laxey, was mined to a depth of approximately 300 feet below the Sonneman, these resources have not been confirmed by drilling and are considered potential extensions of the mineralized vein. The potential mineralization was also extended above panels 1 and 4 along strike of the mineralization to the topographic surface (Figure 17-3). The inferred resource assay values for the extended panels are assigned from the average assay value for the corresponding panel either above or below. The assay values for blocks 10 a, b, and c are assigned base on the values in the

intercept of the 2008 DMEA-2 core hole approximately 300 feet below the Sonneman Tunnel. Possible extensions of mineralization along the trend of the skarn body are projected and listed as inferred resources along vertical skarn extensions.

A summary of the indicated and inferred resources for the South Mountain Main Mine area are listed in Tables 17-5 and 17-6 respectively. The grades for gold, silver, copper, lead and zinc are listed as weighted averages.

**Table 17-5 Estimated Indicated Resources at the South Mountain Project**

	Tons	Au oz	Ag oz	Cu lbs	Pb lbs	Zn lbs
Indicated Resources	895,451	36,886	2,978,747	16,326,048	4,426,102	75,557,257
Weighted Average Grade <sup>1</sup>		0.04	3.33	0.79	0.25	4.22

1. A weighted average was used for the grades instead of a simple average since the panel block sizes vary in size and volume. Weighted Average differs from a regular average because calculation of the average is affected by volume. In general, a weight is assigned to individual quantities to ensure an accurate average is calculated.

**Table 17-6 Estimated Inferred Resources at the South Mountain Project**

	Tons	Au oz	Ag oz	Cu lbs	Pb lbs	Zn lbs
Inferred Resources	2,517,057	24,768	1,948,040	30,630,750	4,339,697	45,687,709
Weighted Average Grade		0.01	0.78	0.61	0.09	0.91

The historical resource done by Bowes (1985) outlined 91,817,000 lbs of Zinc, 13,157,000 lbs of Lead 8,339,000 of copper, 3,530,000 ounces of silver, and 23,500 ounces of gold. The Bowes (1985) totals are different from the current resource estimations because of the use of the updated TMG channel samples in the calculations and the addition of extensions of mineralization below the Sonneman Tunnel defined by DMEA-2 core hole (Table 11-1). Other causes for the differences between the Bowes (1985) and present resource estimation results may be caused from the inclusion of assay values in the individual polygonal blocks versus the block-panels. The indicated and inferred resource estimates meet NI43-101 standards.



The mineral resource estimation was completed using CorelDraw Version X4 to view and plot the maps of the historic mining activities at the site and the drilled assay maps. The distances and dimensions of the old workings were determined and panel sizes were designed to fit within the mineralized zones. The mineralized zones were based on drilling information, sample assays, historic mine maps and underground geologic maps of the Laxey and Sonneman levels of the mine. Microsoft Excel was used to calculate the volumes for the panel sections and determine the average grade for each mineralized zone. The results were summarized in Excel to produce the report table.

### **17.3 Additional Information**

There have not been any issues identified with this project that would change estimates of mineral resources or would materially affect mining, metallurgical, infrastructure and other relevant factors. There are no known environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant issues that would negatively affect this project identified at the time this report was completed. The outlined mineral resources would be best mined using underground methods. Likely infrastructure and associated disturbance would be on private land within mineral rights. The permitting process would be done through the state of Idaho. A pre-production feasibility study would outline the metals market, mining methods, processing methods, infrastructure needs, workforce requirements and availability and permitting strategy.

Based on the work done for this study, the following observations and assumptions can be made for the key elements:

- There is a high likelihood that the additional planned exploration on the resource in 2010 will tighten up the mineral inventory to the point that a pre-feasibility study could be completed.
- TMG has completed a thorough review of the land title on their purchased land, as well as the leased parcels. There does not appear to be any potential issues with land ownership, including the potential of unrecognized underlying royalties.
- The observed underground rock conditions in the Laxey and Sonneman tunnels are stable as some of the workings have been open for over 80 years. The stability of the rock will allow the most economic method for mining the mineralized zones to be utilized.

- The historic mining that has been done at South Mountain, as well as the historical Dawson Labs metallurgical study completed by SMMI, indicate that the sulfide mineralization is readily extractable by standard floatation methods. Additional updated work will be done, but it is reasonable to believe that recoveries should be similar to historic recoveries that are also mirrored by the Dawson test work.
- There is a workforce available in the area. The nearby Delamar Mine that operated from the 1970s into the 1990s, had a large crew that lived in Jordan Valley, Oregon and Nampa, Idaho. The unemployment rate in 2010 in the region is relatively high, and new jobs in the area would be welcome.
- Infrastructure requirements would be dependent upon the size of the operation that would be outlined in the planned pre-feasibility study. Water is readily available, the roads could easily be upgraded where necessary, and there is an existing power line within five miles of the mine site. Larger power requirements for the mine and mill will require and upgrade of existing 12 miles of power line to three phase, plus approximately the construction of five miles of new line.
- The type of floatation mill that would be required for the mineralized material in the Main Mine Area on the property will likely be designed around standard equipment. Both new and used milling equipment is readily available in the western United States.
- There are adequate number of contractors that are capable of doing all required work within the southern Idaho and northern Nevada region.
- The property is located on private land, and a majority of land around the mine area is private ranch land. Agreements with specific land owners would be necessary for infrastructure needs such as roads and power lines, and possibly a processing facility. The private land setting greatly simplifies and streamlines the permitting process as an environmental impact statement (federal agency permit under the National Environmental Policy Act) will not be necessary.
- Initial conversations with the county government have been favorable, and they indicated that Owyhee County would welcome a new tax base. This, coupled with the fact that the area has a history of mining, indicates a high likelihood of community support.
- One of the largest unknowns on a mining project is stable product prices. The market conditions will need to be addressed in the feasibility study.

## 18 OTHER RELEVANT DATA AND INFORMATION

The IDEQ had completed a Preliminary Assessment (PA) at the Sonneman Mine in July, 2002 that included a property description and mitigation/exposure pathways and potential targets. The report stated:

*"Water samples from the adit shows concentrations of arsenic (50 micrograms/kilogram) equal to the Maximum Concentration Limit (MCL), but the risk is calculated at  $1.1 \times E-3$  (EPA, 2002). The risk from arsenic downstream from the PPE (Probable Point of Entry) is calculated at  $5.8 \times E-4$  and is approximately one-half of the MGL. The lead concentrations of both adit and downstream samples are approximately one-third of the MCL (0.015) as presented in the EPA's current Drinking Water Standard (EPA, 2002). JJ (IDEQ, 2002, p. 15)."*

Based on these findings of the PA, the US Environmental Protection Agency (EPA) recommended further action and IDEQ initiated an EPA-funded study. The extensive study and report were completed in March 2005 under contract from Region 10 of the US EPA; the report is included herein as Appendix G. The 2005 IDEQ study identified two major areas of concern for risks to human health and the environment at the site: 1) the ore and waste stockpiles near the Sonneman adit, and; 2) the BLM tailings facility lower in the Williams Creek drainage. The report included recommendations on methods for reclaiming both of these identified potential problem areas.

In 2006, South Mountain Mines completed the reclamation activities on the ore and waste stockpiles pursuant to the recommendations contained in the IDEQ report. The work was done by South Mountain Mines personnel with design and construction oversight by LFR, Inc. A copy of the Ore Consolidation Design and Construction Report, prepared by LFR in 2007 is included herein as Appendix H.

In 2006, the BLM contracted with North Wind Environmental (North Wind) to design a reclamation program for the estimated 16-17,000 tons of tailings situated solely on BLM land below the Sonneman Mine portal and waste rock dump area. North Wind completed the outlined reclamation work in October 2007 by providing diversion ditches for a small side-drainage to Williams Creek,

shaping and capping with both synthetic HDPE plastic and soil and fencing the area to exclude livestock access. The reclaimed area was also seeded then covered with straw mat material to minimize erosion. At the time of the completion of this report, a final construction report had not been delivered to TMG.

As part of their due diligence in 2007, TMG conducted water sampling from a couple of mine portals and various locations along Williams Creek. They also contracted with Enviroscientists, Inc., to conduct an environmental data review and site assessment, which was completed under attorney-client privilege. Based on the completed site work and environmental evaluations, TMG determined that the environmental issues associated with the Property were minor, and therefore an acceptable risk, given the long history of the mine site.

TMG retained Centra Consulting, Inc. (Centra) in 2008 and 2009 to conduct a Spring and Seep Survey (S&SS) on the Williams Creek Drainage with a sufficient level of detail to support a Federal Pollutant Discharge Elimination System (NPDES) permit application. The 2008 sampling event was designed to test the fall surface water conditions and the 2009 event the spring conditions. The S&SS involved mapping surface water within the project area and characterizing physical and chemical properties of the major discharges. The Centra Spring and Seep Survey is included in Appendix I.

## 19 INTERPRETATION AND CONCLUSIONS

- The rock types of the South Mountain area are comprised of an isolated exposure of metasedimentary and intrusive rock, surrounded by younger upper-Tertiary volcanic and sedimentary units of the Owyhee volcanic field.
- The indicated resources in the Main Mine area at the South Mountain Project are shown on the following table (Table 1-1).

**Table 19-1 Estimated Indicated Resources at the South Mountain Project**

	Tons	Au oz	Ag oz	Cu lbs	Pb lbs	Zn lbs
Indicated Resources	895,451	36,886	2,978,747	16,326,048	4,426,102	75,557,257
Weighted Average Grade <sup>1</sup>		0.04	3.33	0.79	0.25	4.22

1. A weighted average was used for the grades instead of a simple average since the panel block sizes vary in size and volume. Weighted Average differs from a regular average because calculation of the average is affected by volume. In general, a weight is assigned to individual quantities to ensure an accurate average is calculated.

- The inferred resources in the Main Mine area at the South Mountain Project are shown on the following table (Table 1-2).

**Table 19-2 Estimated Inferred Resources at the South Mountain Project**

	Tons	Au oz	Ag oz	Cu lbs	Pb lbs	Zn lbs
Inferred Resources	2,517,057	24,768	1,948,040	30,630,750	4,339,697	45,687,709
Weighted Average Grade		0.01	0.78	0.61	0.09	0.91

- The indicated mineral resource in the Laxey, Sonneman, Texas mine area provides a potentially minable resource and meets the NI43-101 standards.
- Rock chip and soil samples collected from an area where intrusive breccias cut granitic rock on the southwestern side of South Mountain outline a gold anomaly with a length of approximately 5,000 feet by 1,500 feet. The gold values range up to 701 parts per billion (ppb) in soil samples and 5,810 ppb in rock chip samples.

In Northwestern Groundwater and Geology's opinion, the silver and zinc indicated resources in the Laxey, Sonneman, Texas mine workings provide a potential minable resource. The intrusive breccias and gold anomalies found on South Mountain should be further tested by drilling and geophysics.

The database that includes the past and present assay information appears to be adequate for an initial resource estimate. The density of the past SMMI sampling and drilling assays combined with the addition of the TMG 2008 and 2009 drilling and sampling programs provides sufficient evidence to outline skarn replacement system hosting gold, silver, copper, lead, and zinc mineralization. However, the author recommends that TMG conducts underground confirmation drilling by twinning selected SMMI holes and conducting addition channel sampling along the Laxey and Sonneman tunnels. Completion of the underground drilling and sampling would help to increase the level of confidence on the mineralized zones and possibly increase the potential tonnage on mineralized material.

The work completed by TMG during 2008 and 2009 has successfully met the company's objectives. The acquisition of the patented claims, addition of unpatented claims, and acquisition of the leased lad blocks expanded the land package for the project to cover the area of geologic interest. The rehabilitation allowing access to the Laxey Tunnel in 2007 and Sonneman Tunnel in 2008 provided additional sampling to confirm the mineralized grades in the underground workings. Rock chip and soil sampling on the southern side of South Mountain outlined a new gold geochemical anomaly. Completion of the work recommended in this report should further define and possibly expand the underground gold, silver, copper, lead, and zinc mineralization in the Laxey and Sonneman tunnels. The planned drilling program for the gold geochemical soil anomaly on the south side of South Mountain will provide an initial test the new target.

## 20 RECOMMENDATIONS

- Additional underground geochemical channel-sampling, structural mapping and core drilling are recommended to further outline and confirm the resources outlined in the Main Mine Area workings (Laxey and Sonneman Tunnels) to establish a measured resource. This would require rehabilitating some areas of the underground workings and development of underground drill stations for detailed definition of resources and evaluate potential downdip mineral extensions.
- Geologic mapping, ground magnetic surveys, and structural analysis of the South Mountain Project area is suggested to explore for additional gold and targets similar to the South Mountain gold anomaly or possible faulted offsets to the existing gold anomaly.
- If surface magnetic surveys correlate to areas of known mineralization, then a draped aeromagnetic survey of the South Mountain Property is recommended to search for unexposed mineralized igneous intrusions that are likely responsible for the mineralization exposed at the property.
- Sufficient data has been developed on the gold anomaly that drilling is warranted in specific target areas. Up to five drill holes with a minimum depth of 1,000 feet are recommended as an initial phase, with one or more deeper holes planned once a geologic assessment has been made from the initial round of drilling. Drill access would be done with a road up to 5,000 feet long across the anomaly. Road cut samples on 100-foot centers should be completed along the newly constructed road.
- Drill testing of all targets should be conducted in phases where success in the initial phase of drilling, would be followed by additional data analysis and drilling if warranted.

The following phased budget is recommended to further develop the South Mountain property.

**Proposed South Mountain Project - 2010 Budget**

**PHASE 1**

South Mountain Breccia Drilling	
Road Construction/Site Preparation	\$37,000
Reverse Circulation	
5 holes X1200 feet X \$20 ft	\$120,000
Mobilization/ Demob	\$15,000
Core Drilling	
2 Core holes	\$82,000
Mob-Demob	\$15,000
Geophysics	\$75,000
Permitting/Water Rights	\$3,000
Reclamation Bonding	\$5,000
Analytical Work	\$25,000
Salaries and Overhead	<u>\$111,000</u>
<b>Subtotal Direct Exploration Expenses</b>	<b>\$488,000</b>
10% Contingency	<u>\$ 48,800</u>
<b>TOTAL Phase I</b>	<b>\$536,800</b>

**PHASE 2**

South Mountain Breccia Drilling	
Reverse Circulation	
5 holes X1200 feet X \$20 ft	\$120,000
Mob-Demob	Expensed Ph. 1
Laxey – Sonneman Exploration	
Under Ground Drilling	\$100,000
Surface Core Drilling	
8 Core holes	\$328,000
Mob-Demob	Expensed Ph. 1
Analytical Work	\$36,000
Contract Surveying	\$25,000
Consulting Geologists & Travel	\$44,500
Reclamation Cost Estimate	
Road & Pad Dirt work 7,500 ft X \$2.00	\$15,000
Drill hole Abandonment – Materials	\$10,000
Salaries and Overhead	\$217,074
Caretaker	<u>\$6,000</u>
<b>Subtotal Phase 2 Exploration Expenses</b>	<b>\$901,574</b>
10% Contingency	<u>\$ 90,157</u>
<b>TOTAL Phase 2</b>	<b>\$991,731</b>
<b>Grand Total 2010 Budget</b>	<b>\$1,528,531</b>





## SIGNATURE PAGE

This report titled "NI43-101 Technical Report, South Mountain Project, Thunder Mountain Gold, Inc, Owyhee County, Idaho" effective March 23, 2010, was prepared and signed by the author:

Dated March 23, 2010



Gregory P. Wittman, P.G.  
Consulting Geologist  
Northwestern Groundwater & Geology

## 21 CERTIFICATE OF QUALIFICATIONS

Gregory P. Wittman, P.G.  
361 S. Wooddale Avenue  
Eagle, Idaho 83616  
Telephone: 208-949-7536  
E-mail: gpwittman@msn.com

I, Gregory P. Wittman, P.G. do hereby certify that:

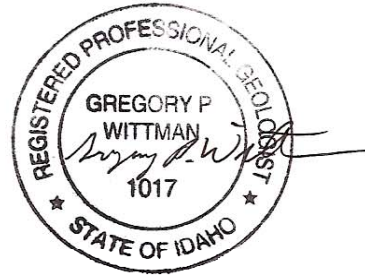
1. I am a Consultant Geologist residing at 361 S. Wooddale Avenue, Eagle, Idaho
2. I graduated with a Bachelor of Arts degree in Geology from the University of Montana in 1975 and received a Master's in Geoscience from Montana Tech in 1997.
3. I am a registered Professional Geologist in the State of Wyoming, license no. PG-2941 and the State of Idaho, license No. PG-1017.
4. I have practiced my profession as a geologist continuously since 1973.
5. I have managed resource calculations for exploration properties and mines for Amax Exploration, Molycorp, Inc., Pegasus Gold Corporation and others. I have experience with Kriged estimates, polygonal estimates, and block-panel estimates. The types of deposits I have experience with include molybdenum, copper, nickel, lead, zinc, platinum/palladium, chrome, and gold.
6. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
7. I have prepared Geology and Mineral Resource sections of the non-NI43-101 compliant Kleinfelder "Technical Report on the South Mountain Project Owyhee County, Idaho" (the "Technical Report") dated May 18, 2008.
8. I am responsible all sections of the NI 43-101 Technical Report, South Mountain Project, Owyhee County, Idaho, Thunder Mountain Gold, Inc., dated March 23, 2010.
9. I have visited the South Mountain property site on October 19, 2009 and October 28, 2009.
10. I have also reviewed all previous news releases and resource calculations for the South Mountain property.

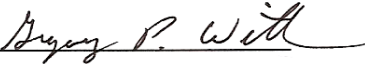
11. To the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

12. I am independent of the issuer applying all of the tests in section 1.4 of National Instrument 43-101.

13. I have read National Instrument 43-101 and Form 43-101F1, and confirm that the Technical Report has been prepared in compliance with National Instrument 43-101 and Form 43-101F1.

Dated March 23, 2010



  
Gregory P. Wittman, P.G.

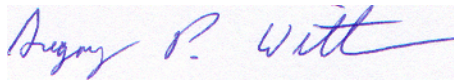
Sealed

*To: Securities Regulatory Authority of British Columbia*

*I, Gregory P. Wittman, do hereby consent to the public filing of technical report entitled,*

**“NI 43-101 TECHNICAL REPORT  
SOUTH MOUNTAIN PROJECT  
OWYHEE COUNTY, IDAHO  
THUNDER MOUNTAIN GOLD, INC.”**

*and dated March 23, 2010 (the "Technical Report") by Thunder Mountain Gold Inc. (the "Issuer"), with the TSX Venture Exchange under its applicable policies and forms, in connection with the Issuer's proposed listing on the Toronto Stock Venture Exchange sponsored by Haywood Securities Inc. (the "Sponsor") pursuant to a sponsorship agreement dated December 14, 2009 between the Issuer and the Sponsor... I acknowledge that the Technical Report will become part of the Issuer's public record.*



Gregory P Wittman, P.G.

March 23, 2010

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July 16, 2010

Re: Thunder Mountain Gold, Inc.--Form 8-K (Commission File Number 001-08429)

We hereby consent to the use of our name and the report, entitled "NI 43-101 Technical Report – South Mountain Project—Owyhee County, Idaho—Thunder Mountain Gold, Inc." in the Form 8-K Current Report of Thunder Mountain Gold, Inc. In giving this consent, we do not thereby admit that we are within the category of persons whose consent is required under Section 7 of the Act, the rules and regulations of the Securities and Exchange Commission promulgated there under, or Item 509 of Regulation S-K.

Very truly yours,



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GREGORY P. WITTMAN, P.G.