National Instrument 43-101 Technical Report: Updated Mineral Resource Estimate for the South Mountain Project Owyhee County, Idaho USA

Report Date: May 6, 2019
Effective Date: April 1, 2019

Prepared for:

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and

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Endorsed by QP(s):
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J. J. Brown, P.G., SME-RM (No. 4168244RM)
Randall K. Martin (No. 4063888RM)

IMPORTANT NOTICE

This report was prepared as a National Instrument 43-101 Technical Report for BeMetals Corp. ("BMET") by Hard Rock Consulting, LLC ("HRC"). The quality of information, conclusions, and estimates contained herein is consistent with the scope of HRC's services based on: i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions, and qualifications set forth in this report. This report is intended for use by BMET subject to the terms and conditions of their contract with HRC, which permits BMET to file this report with Canadian Securities Regulatory Authorities pursuant to National Instrument 43-101, Standards of Disclosure for Mineral Projects. HRC accepts that the TSX Venture Exchange may rely on this document for purposes of the Acquisition described herein. Except for the purposes legislated under provincial securities law, any other use of this report by any third party is at that party's sole risk.

CERTIFICATES OF QUALIFIED PERSONS

I, Randall K. Martin, do hereby certify that:

1. I am an independent consultant working with Hard Rock Consulting, LLC, an engineering firm located in Lakewood, Colorado, USA.

2. I graduated from Colorado School of Mines with a Bachelor of Science Degree in Metallurgical Engineering in 1977, and a Master of Science Degree in Mineral Economics in 1978.

3. I have practiced my profession as a mineral modeler and mine planner continuously since graduation for a total of 35 years. Although my BS degree is in Metallurgical Engineering, I have spent my entire career as a resource modeler, mine planner, and computer software engineer. My first ten years of employment were with the exploration division of a major mining company. I have also worked a total of 14 years as a full-time employee for three major consulting companies. In addition, I am president and owner of a software company that specializes in mineral modeling and mine planning software.

4. I am a Registered Member (# 4063888RM) in good standing with the Society of Mining, Metallurgy and Exploration (SME).

5. 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.

6. I visited the property on April 3, 2018, prior to which I have had no involvement with the property that is the subject of this Technical Report.

7. I am responsible for the preparation of the report titled "National Instrument 43-101 Technical Report, Updated Mineral Resource Estimate for the South Mountain Project, Owyhee County, Idaho, USA", dated May 6, 2019 with an effective date of April 1, 2019, and I take specific responsibility for Sections 1, 9 through 12, and 14 of this report.

8. As of the date of this certificate and as of the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information required to be disclosed to make the report not misleading.

9. I am independent of the vendor, property, and BeMetals Corp. applying all tests specified in section 1.5 of NI 43-101. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

Dated this 9th day of May 2019.

"Signed" Randall K. Martin

_____

Signature of Qualified Person

Randall K. Martin, SME-RM
_____

Printed name of Qualified Person

CERTIFICATE OF QUALIFIED PERSONS

I, Jennifer J. Brown, P.G., do hereby certify that:

1. I am currently employed as Principal Geologist by:

    Hard Rock Consulting, LLC
    7114 W. Jefferson Ave., Ste. 308
    Lakewood, Colorado 80235 U.S.A.

2. I am a graduate of the University of Montana and received a Bachelor of Arts degree in Geology in 1996.

3. I am a:
    - Licensed Professional Geologist in the State of Wyoming (PG-3719)
    - Registered Professional Geologist in the State of Idaho (PGL-1414)
    - Registered Member in good standing of the Society for Mining, Metallurgy, and Exploration, Inc. (4168244RM)

4. I have worked as a geologist for a total of 20 years since graduation from the University of Montana, as an employee of various engineering and consulting firms and the U.S.D.A. Forest Service. I have more than 10 collective years of experience directly related to mining and or economic and saleable minerals exploration and resource development, including geotechnical exploration, geologic analysis and interpretation, resource evaluation, and technical reporting.

5. 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.

6. I personally inspected the South Mountain Project on April 2 through 4, 2018, prior to which I have had no involvement with the property that is the subject of this Technical Report.

7. I am responsible for the preparation of the report titled "National Instrument 43-101 Technical Report: Updated Mineral Resource Estimate for the South Mountain Project, Owyhee County, Idaho USA," dated May 6, 2019 with an effective date of April 1, 2019, and I take specific responsibility for Sections 2 through 8 and 15 through 24 of this report.

8. As of the date of this certificate and as of the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information required to be disclosed to make the report not misleading.

9. I am independent of the vendor, property, and BeMetals Corp. applying all tests specified in section 1.5 of NI 43-101.

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

Dated this 9th day of May 2019.

"Signed" Jennifer J. (J.J.) Brown

JJBrown

Jennifer J. (J.J.) Brown, SME-RM
Printed name of Qualified Person
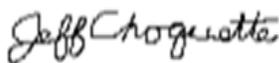
Hard Rock Consulting, LLC

CERTIFICATE OF QUALIFIED PERSONS

I, Jeffery W. Choquette, P.E., do hereby certify that:

1. I am currently employed as Principal Engineer by:

    Hard Rock Consulting, LLC
    7114 W. Jefferson Ave., Ste. 308
    Lakewood, Colorado 80235 U.S.A.

2. I am a graduate of Montana College of Mineral Science and Technology and received a Bachelor of Science degree in Mining Engineering in 1995

3. I am a:

    - Registered Professional Engineer in the State of Montana (No. 12265)
    - QP Member in Mining and Ore Reserves in good standing of the Mining and Metallurgical Society of America (No. 01425QP)

4. I have 22-plus years of domestic and international experience in project development, resource and reserve modeling, mine operations, mine engineering, project evaluation, and financial analysis. I have worked for mining and exploration companies for fifteen years and as a consulting engineer for seven years. I have been involved in industrial minerals, base metals and precious metal mining projects in the United States, Canada, Mexico and South America.

5. 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.

6. I have had no prior involvement with the property that is the subject of this Technical Report.

7. I am responsible for the preparation of the report titled "National Instrument 43-101 Technical Report: Updated Mineral Resource Estimate for the South Mountain Project, Owyhee County, Idaho, USA," dated May 6, 2019, with an effective date of April 1, 2019, and I take specific responsibility for Sections 13 and 25 through 27 of this report.

8. As of the date of this certificate and as of the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information required to be disclosed to make the report not misleading.

9. I am independent of the vendor, property, and BeMetals Corp. applying all tests specified in section 1.5 of NI 43-101.

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

Dated this 9th day of May 2019.

"Signed" Jeffery W. Choquette

Jeff Choquette

Jeffery W. Choquette, P.E.
Printed name of Qualified Person

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LIST OF ACRONYMS

amsl	Above mean seal level
AMAG	Airborne magnetic data
ARAD	Airborne radiometric data
Au	Gold
BLM	Bureau of Land Management
$CaFeSi_2O_6$	Hendenbergite
CIM	Canadian Institute of Mining, Metallurgy, and Petroleum
Cu	Copper
CUP	Conditional Use Permit
CxCu	Cold extractable copper
CxHM	Cold extractable total heavy metals
DMEA	Defense Minerals Exploration Administration
EPA	Environmental Protection Agency
ft	Feet
GRAV	Gravity data
HRC	Hard Rock Consulting LLC
IDEQ	Idaho Department of Environmental Quality
IBMG	Idaho Bureau of Mines and Geology
K	Potassium
K-Ar	Granodiorite
m	meters
my	Million years
NEPA	National Environmental Protection Agency
NURE	National Uranium Resource Evaluation
NI 43-101	National Instrument 43-101
OK	Ordinary Krige
opt	Ounces per ton
oz/t	ounces per ton
PA	Preliminary Assessment
Pb	Lead
ppm	Parts per million
QA/QC	Quality assurance and quality control
RC	Reverse circulation
RES	Residual
RM	Registered member
SME	Society for Mining, Metallurgy, and Exploration
SMM	South Mountain Mines
SMSZ	South Mountain Structural Zone
t	ton
THMG	Thunder Mountain Gold, Inc.
TH	Thorium
tpd	tons per day
U	Uranium
US$	U.S. dollars
ZnEq	Zinc Equivalent

1.   EXECUTIVE SUMMARY

1.1   Introduction

BeMetals Corp. ("BMET") has retained Hard Rock Consulting, LLC ("HRC") to prepare this technical report for the South Mountain Project (the "Project"), a past-producing base and precious metal property located in Owyhee County, Idaho, USA.

South Mountain Mines Inc. ("SMMI") is the owner of a 75% equity interest in Owyhee Gold Territory LLC ("OGT"), the owner of the South Mountain Project, and a mining lease with option to purchase the South Mountain Project granted by OGT to SMMI and the remaining 25% equity interest in OGT. Thunder Mountain Resources Inc. ("TMRI") is the legal and beneficial owner of all issued and outstanding shares of SMMI. Thunder Mountain Gold Inc. ("THMG") is the legal and beneficial owner of all of the issued and outstanding shares of TMRI.

In accordance with the terms of the option agreement dated February 27, 2019 (the "Option Agreement") between BMET, BMET USA Corp., ("BMET USA") a wholly owned subsidiary of BMET, THMG, TMRI and SMMI, THMG has agreed to grant to BMET USA an option to acquire all of the issued and outstanding shares of SMMI.

This report presents the results of the South Mountain Project mineral resource estimate and associated work completed by HRC and is intended to fulfill the reporting Standards of Disclosure for Mineral Projects according to Canadian National Instrument 43-101 ("NI 43-101"). This report was prepared in accordance with the requirements and guidelines set forth in Companion Policy 43-101CP and Form 43-101F1 (June 2011). The mineral resource estimate presented herein is classified according to Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Definition Standards for Mineral Resources and Mineral Reserves, prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council on May 10, 2014. The mineral resource estimate reported herein is based on all available technical data and information as of April 1, 2019, which is the effective date of the report in full.

1.2   Property Description and Ownership

The South Mountain Project is located in southwestern Idaho, in Owyhee County approximately 70 air miles southwest of Boise, Idaho, and approximately 24 miles southeast of Jordan Valley, Oregon. The Project is situated wholly within the State of Idaho at approximately 42°44'41.65"N latitude and 116°55'13.48"W longitude.

BMET through the Option Agreement can acquire SMMI by issuing 10 million common shares of BMET to THMG, purchasing 2.5 million shares of common stock of THMG at US$0.10 per share by way of private placement, incurring cash payments of US$1.1 million over a period of two years, with an additional final value payment consisting of cash, common shares, or a combination of both. The final payment can be the greater of either US$10 million or 20% of the after-tax net present value of the South Mountain Project as calculated in a Preliminary Economic Assessment study report, if conducted in subsequent phases of work, which would be undertaken by an agreed independent author. The final value payment can be decreased by

US$850,000 to account for certain cash payments previously made and the value of the 10 million common shares issued by BMET, as described above, as well as certain liabilities of SMMI to be assumed on acquisition of SMMI. The final value payment is also capped at a maximum of 50% of the market capitalization of BMET as of the completion date of the acquisition of SMMI if applicable.

The Project area is comprised of 17 patented and 21 unpatented contiguous mining claims covering a total of approximately 616 acres, and an additional 489 acres of leased private land. Included within the Project is a 360-acre millsite not contiguous with the mining claims, purchased by THMG in 2013, that is also governed by the Option Agreement. The millsite sits approximately 6.8 road miles from the existing workings, with access provided by a newly constructed, 1.2-mile haul road between the millsite and Owyhee County South Mountain Road.

The private land lease agreements include, among others, a mining lease with option to purchase dated November 13, 2016 between OGT and SMMI. The claims and leased lands comprising the Project are subject to a 5% net returns royalty in favor of OGT, which is capped at $5M and certain other leased land covering approximately 489 acres are subject to a 3% net smelter returns royalty plus an annual per-acre rental fee. There are no other royalties or encumbrances associated with the patented or unpatented claims. The unpatented claims require annual holding fees of $155 per claim to be paid to the Bureau of Land Management and the patented claims are subject to property taxes levied by Owyhee County.

1.3   Geology and Mineralization

The South Mountain mining district is situated within a roof pendant of marble, quartzite, and schist, in an igneous complex which has been the site of intrusive and extrusive activity since Cretaceous time. These igneous rocks, and those of the nearby Owyhee Mountains, are separated from similar rocks of the Idaho batholith by the volcanic rocks of the Snake River Plain. Uplift of South Mountain and subsequent erosion has resulted in a broad range, elongated to the northwest, cored by the pre-Cretaceous metasediments and Cretaceous to Tertiary plutonic rocks. Bimodal (basaltic and rhyolitic) volcanic rocks of two distinct ages, Eocene-Oligocene and Miocene-Pliocene, are the dominant rock types exposed in the region.

Metasedimentary rocks, which are host to the skarn and replacement vein mineral deposits at South Mountain, are common in and on the margin of the Idaho batholith and occur as pendants or inclusions in the Owyhee region. 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. The marble is the host rock to the massive sulfide (skarn) and replacement vein mineralized zones at South Mountain and comprises approximately one-quarter of the metasedimentary assemblage. 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 also present on South Mountain. The dikes range in composition from mafic fine-grained basalts to leucocratic pegmatites.

Historic production at South Mountain has largely come from the skarn-hosted, high grade massive sulfide bodies, which comprise the primary mineral resource of the Project. These occurrences are localized almost entirely to the Laxey marble, and specifically, the parts of the marble which have been altered to hedenbergite-rich, Pb/Zn skarn. The mineralized zones in the skarn occur as pipe-like bodies which plunge

40-50 degrees southwest, and rake approximately 50 degrees within the marble bed. Mineralization is at least partially controlled by northeast trending structures and is persistent with depth. These high grade massive sulfide zones remain open at depth and along strike.

1.4   Status of Exploration

No exploration has yet been carried out at the South Mountain Project by or on behalf of BEMET. Since 2008, THMG has drilled 27 holes for a total of 16,600 ft. Twenty of the holes are diamond core holes, and the remaining seven are RC. Other exploration (and development) activities carried out by THMG since 2008 include:

- Adjoining property evaluation and acquisition
- Title work for the patented claims and private land parcels
- Surveying the claim boundaries,
- Rehabilitation of the Laxey and Sonneman Drifts, some to production standards,
- Surveying Laxey and Sonneman drifts, cross cuts, and drill stations
- Channel sampling the ribs in the massive sulfide zones on the Sonneman level,
- Geologic mapping and geochemical sampling specific to an intrusive gold breccia target, and
- A ground magnetics survey as well as compiling and reprocessing public domain geophysical surveys.

1.5   Mineral Resource Estimate

Mr. Randal K. Martin, a Resource Geologist with HRC, is responsible for the mineral resource estimate presented herein (Table 1-1). Mr. Martin is a Qualified Person as defined by NI 43-101 and is independent of the vendor, property, and BMET. The mineral resource estimate is based on drillhole and channel sampling data constrained by geologic boundaries with an Ordinary Kriging algorithm. MicroModel® 9.0 software was used to complete the resource estimate. The metals of interest at the Project are zinc, silver, gold, copper, and lead. All units are Imperial, and all costs are reported in US Dollars unless otherwise specified.

Based on the thorough understanding of the geology at the South Mountain Project, in conjunction realistically assumed and justifiable technical and economic conditions, the QP considers the mineral resource to demonstrate reasonable prospects for eventual economic extraction. The cutoff is based on the following assumptions: three-year average metal prices for each metal of interest, assumed mining cost of $70/ton, process costs of $25/ton, general and administrative $7.50/ton, refining costs of $25.00/ton, metallurgical recovery of 96%, and a selling Zinc selling price of $1.10/lbs.

HRC cautions that mineral resources that are not mineral reserves do not have demonstrated economic viability such as diluting materials and allowances for losses that may occur when material is mined or extracted, nor modifying factors including but not restricted to mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors. HRC knows of no existing environmental, permitting, legal, title, taxation, socio-economic, or other relevant factors that might materially affect the mineral resource estimate.

The geologic model was constructed using drillhole and channel sample lithology within the database, in conjunction with an underground geologic map, drillhole cross sections, and interpretations by THMG staff. Leapfrog Geo® version 4.2.3 was used to create the model. The overall geologic model is constrained within 500 ft for drillholes and channel samples within the area of mineralization and includes five discrete geological units. The mineral resource statement is presented in Table 1-1. Measured and indicated resources are restricted to massive sulfide domains only. Tables 1-2 and 1-3 break out the mineral resource estimate into massive sulfide and skarn rock types, respectively.

Table 1-1 Mineral Resource Statement for the South Mountain Project, April 1, 2019

Mineral Resources at 6.04% ZnEq Cut-off													
Classification	**Zinc Equivalent Resource**			**Contained Metal**									
	Short Tons	**ZnEq lbs**	**ZnEq %**	**Zn lbs**	**Zn%**	**Ag oz**	**Ag opt**	**Au oz**	**Au opt**	**Pb lbs**	**Pb %**	**Cu lbs**	**Cu %**
	x1000	**x1000**		**x1000**		**x1000**		**x1000**		**x1000**		**x1000**	
Measured	63.2	22,200	17.57	14,700	11.64	237	3.745	4.0	0.063	600	0.483	700	0.566
Indicated	106.7	37,800	17.72	21,500	10.08	576	5.398	7.0	0.066	2,100	0.983	1,600	0.766
Measured + Indicated	**169.9**	**60,000**	**17.66**	**36,200**	**10.66**	**813**	**4.783**	**11.0**	**0.065**	**2,700**	**0.797**	**2,300**	**0.692**
Inferred	363.2	120,800	16.63	70,500	9.70	2,029	5.585	16.3	0.045	8,700	1.202	5,200	0.696

1. The effective date of the mineral resource estimate is April 1st, 2019. The QP for the estimate, Mr. Randall K. Martin of HRC, is independent of the vendor, property, and BMETALS.

2. Mineral resources that are not mineral reserves do not have demonstrated economic viability. Inferred mineral resources are that part of the mineral resource for which quantity and grade or quality are estimated on the basis of limited geologic evidence and sampling, which is sufficient to imply but not verify grade or quality continuity. Inferred mineral resources may not be converted to mineral reserves. It is reasonably expected, though not guaranteed, that the majority of Inferred mineral resources could be upgraded to Indicated mineral resources with continued exploration.

3. The mineral resource is reported at an underground mining cutoff of 6.04% Zinc Equivalent Grade ("ZnEq") within coherent wireframe models. The ZnEq calculation and cutoff is based on the following assumptions: an Au price of $1,231/oz, Ag price of $16.62/oz, Pb price of $0.93/lb., Zn price of $1.10/lb. and Cu price of $2.54/lb.; metallurgical recoveries of 75% for Au, 70% for Ag, 87% for Pb, 96% for Zn and 56% for Cu, assumed mining cost of $70/ton, process costs of $25/ton, general and administrative costs of $7.5/ton, smelting and refining costs of $25/ton. Based on the stated prices and recoveries the ZnEq formula is calculated as follows; ZnEq = (Au grade * 43.71) + (Ag grade * 0.55) + (Pb grade * 0.77) + (Cu grade * 1.35) + (Zn grade).

4. Rounding may result in apparent differences when summing tons, grade and contained metal content. Tonnage and grade measurements are in imperial units.

Table 1-2 Mineral Resource Estimate (April 1, 2019) Contained Within Massive Sulfides Only

Mineral Resources Contained within Massive Sulfide Domains at 6.04% ZnEq Cut-off													
Classification	**Zinc Equivalent Resource**			**Contained Metal**									
	Short Tons	**ZnEq lbs**	**ZnEq %**	**Zn lbs**	**Zn %**	**Ag oz**	**Ag opt**	**Au oz**	**Au opt**	**Pb lbs**	**Pb %**	**Cu lbs**	**Cu %**
	x1000	**x1000**		**x1000**		**x1000**		**x1000**		**x1000**		**x1000**	
Measured	63.2	22,200	17.57	14,700	11.64	237	3.745	4.0	0.063	600	0.483	700	0.566
Indicated	106.7	37,800	17.72	21,500	10.08	576	5.398	7.0	0.066	2,100	0.983	1,600	0.766

Hard Rock Consulting, LLC

Measured + Indicated	169.9	60,000	17.66	36,200	10.66	813	4.783	11.0	0.065	2,700	0.797	2,300	0.692
Inferred	342.4	117,300	17.13	69,300	10.12	2,000	5.790	14.8	0.043	8,700	1.266	4,900	0.711

Table 1-3 Mineral Resource Estimate (April 1, 2019) Contained Within Skarns Only

	Mineral Resources Contained within Skarn Domains at 6.04% ZnEq Cut-off												
	Zinc Equivalent Resource			Contained Metal									
Classification	Short Tons	ZnEq lbs	ZnEq %	Zn lbs	Zn %	Ag oz	Ag opt	Au oz	Au opt	Pb lbs	Pb %	Cu lbs	Cu %
	x1000	x1000		x1000		x1000		x1000		x1000		x1000	
Measured	-	-	-	-	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-	-	-	-	-
Measured + Indicated	-	-	-	-	-	-	-	-	-	-	-	-	-
Inferred	20.7	3,500	8.44	1,200	2.81	46	2.212	1.7	0.084	100	0.141	200	0.441

1.6   Conclusions

HRC concludes that the geology of the South Mountain Project is well understood, and that the appropriate deposit model is being applied for exploration. The conceptual geologic model is sound, and in conjunction with drilling results, indicates that mineralization is essentially open in all directions. Significant potential exists to increase the known mineral resource with additional drilling, as well as to upgrade existing mineral resource classifications with infill drilling. HRC finds the current mineral resource at the South Mountain Project more than sufficient to warrant continued planning and development to further advance the Project.

HRC finds the sample preparation, analytical procedures, and security measures presently employed at the South Mountain Project to be reasonable and adequate to ensure the validity and integrity of the data derived from sampling programs to date. Based on the results of the site investigation and data validation efforts, HRC considers the drilling and sampling data, as contained in the current Project database, to be reasonably accurate and suitable for use in estimating mineral resources.

The South Mountain Project is not subject to any known environmental liabilities. Existing surface rights are sufficient for all presently planned development and operations. The Project is largely located on and surrounded by private land surface, and as such the permitting and environmental aspects of the Project are quite simple and straightforward. Based on permits in hand and associated work completed to date, in conjunction with the long and successful history of mineral exploration throughout the district, no barriers to proposed or future plans for exploration and development at the Project are anticipated.

1.7   Recommendations

1.7.1   General Recommendations

During the course of this study, HRC made a number of observations regarding data handling, document management, and general drilling and sampling procedures and protocols for which modifications and/or

improvements could positively affect the level of confidence in the drillhole data and subsequent mineral resource estimates:

- Formal, written procedures for data collection and handling should be developed and made available to field personnel. These should include procedures and protocols for field work, geological mapping and logging, database construction, sample chain of custody, and documentation trail. These procedures should also include detailed and specific QA/QC procedures for analytical work, including acceptance/rejection criteria for batches of samples.

- A detailed review of field practices and sample collection procedures should be performed on regular basis, to ensure that the correct procedures and protocols are being followed.

- Review and evaluation of laboratory work should be an on-going process, including occasional visits to the laboratories involved.

- The Project's existing QA/QC program should be expanded to include at least standards, blanks, and duplicates. All QA/QC control samples sent for analysis should be blind, meaning that the laboratory should not be able to differentiate a check sample from the regular sample stream. The minimum control unit with regard to check sample insertion rate should be the batch of samples originally sent to the laboratory. Samples should be controlled on a batch by batch basis, and rejection criteria should be enforced. Ideally, assuming a 40-sample batch, the following control samples should be sent to the primary laboratory:

    o Two blanks (5% of the total number of samples). Of these, one coarse blank should be inserted for every 4th blank inserted (25% of the total number of blanks inserted).

    o Two pulp duplicates (5% of the total number of samples)

    o Two coarse duplicates (5% of the total number of samples)

    o Two standards appropriate to the expected grade of the batch of samples (5% of the total number of samples).

- For drill hole samples, the control samples sent to a second (check) laboratory should be from pulp duplicates in all cases and should include one blank, two sample pulps, and one standard for every 40-sample batch.

- The purpose of the coarse duplicates is to quantify the variances introduced into the assay grade by errors at different sample preparation stages. Coarse duplicates are inserted into the primary sample stream to provide an estimate of the sum of the assay variance plus the sample preparation variance, up to the primary crushing stage. An alternative to the coarse duplicate is the field duplicate, which in the case of core samples, is a duplicate from the core box (i.e. a quarter core or the other half core). If coarse duplicates are preferred (in order to preserve drill core), the coarse duplicates should be sent for preparation and assaying by the second laboratory.

- QA/QC analysis should be conducted on an on-going basis and should include consistent acceptance/rejection tests. Each round of QA/QC analysis should be documented, and reports should include a discussion of the results and any corrective actions taken.

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The database audit work completed to date indicates that occasional inconsistencies and/or erroneous entries are likely inherent or inevitable in the data entry process. The QP recommends that BMET establish a routine, internal mechanical audit procedure to check for overlaps, gaps, total drill hole length inconsistencies, non-numeric assay values, and negative numbers. The internal mechanical audit should be carried out after any significant update to the database, and the results of each audit, including any corrective actions taken, should be documented and stored for future use in database validation.

1.7.2   Metallurgical

Additional selective flotation testing should be completed on all massive sulfide zones, geared toward optimizing the zinc flotation circuit with emphasis on pyrrhotite and pyrite rejection. Sphalerite reagent optimization is required, and some concentrate cleaning work is recommended. The removal of pyrrhotite from the final zinc concentrate by low intensity magnetic separation may be warranted. In addition, the copper in the lead concentrate may not be a payable item as some smelters will pay for as much as 40% of contained copper while others considered copper deleterious. Testing should be conducted to determine if it is beneficial to produce a copper concentrate. Communication with smelters should be initiated regarding treatment terms for different concentrates in order to better understand current markets for the final concentrates.

1.7.3   Work Plan and Budget

HRC's recommended work plan is intended to support advancing the Project to the next level of study, whether a Preliminary Economic Assessment or Prefeasibility Study. Engineering aspects of Project development need to be assessed to identify and evaluate any potential challenges or costs that might impact the overall Project economics. The recommended work plan is heavily weighted toward underground drilling. Although a large portion of the underground workings have been rehabilitated and upgraded, there are some additional historic workings that may require rehabilitation work and establishment of drilling bays. BMET's goal is approximately 50% confirmation and in-fill drilling, with the balance geared toward core drilling the down dip extensions of the major massive sulfide zones, and additional focus on evaluating mineralization between existing mine levels.

At this time, HRC recommends a single-phase work plan to include site and underground re-establishment, the completion of approximately 2,500m (8,500ft) of underground core drilling, geological logging, sampling and analytical work, with associated project management costs. The drilling program will provide critical data on the continuity and potential extensions to the South Mountain mineralization. The planned activities will take place from the existing underground development, where the boreholes will be collared, primarily within the patented claim area. A small number of the planned underground boreholes may extend into the unpatented claim area surrounding the patented claims.

Table 1-4 breaks out the summary of anticipated costs per task for the recommended work plan and, for completeness, includes administrative costs that will be incurred throughout the program.

Table 1-4 Recommended Scope of Work for the South Mountain Project

Recommended Scope of Work	Expected Cost US $
SITE & UNDERGROUND RE-ESTABLISHMENT	220,000
DRILLING / ANALYSIS / DATABASE	533,750
PROJECT MANAGEMENT / ENVIRONMENTAL / H&S	885,000
CONTINGENCY	163,875
TOTAL BUDGET	1,802,625

2.   INTRODUCTION

2.1   Issuer and Terms of Reference

BeMetals Corp. ("BMET") has retained Hard Rock Consulting, LLC ("HRC") to prepare this technical report for the South Mountain Project (the "Project"), a past-producing base and precious metal property located in Owyhee County, Idaho, USA.

South Mountain Mines Inc. ("SMMI") is the owner of a 75% equity interest in Owyhee Gold Territory LLC ("OGT"), the owner of the South Mountain Project, and a mining lease with option to purchase the South Mountain Project granted by OGT to SMMI and the remaining 25% equity interest in OGT. Thunder Mountain Resources Inc. ("TMRI") is the legal and beneficial owner of all issued and outstanding shares of SMMI. Thunder Mountain Gold Inc. ("THMG") is the legal and beneficial owner of all of the issued and outstanding shares of TMRI.

In accordance with the terms of the option agreement dated February 27, 2019 (the "Option Agreement") between BMET, BMET USA Corp. ("BMET USA"), a wholly owned subsidiary of BMET, THMG, TMRI and SMMI, THMG has agreed to grant to BMET USA an option to acquire all of the issued and outstanding shares of SMMI.

This report presents the results of the South Mountain Project mineral resource estimate and associated work completed by HRC and is intended to fulfill the reporting Standards of Disclosure for Mineral Projects according to Canadian National Instrument 43-101 ("NI 43-101"). This report was prepared in accordance with the requirements and guidelines set forth in Companion Policy 43-101CP and Form 43-101F1 (June 2011). The mineral resource estimate presented herein is classified according to Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Definition Standards for Mineral Resources and Mineral Reserves, prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council on May 10, 2014. The mineral resource estimate reported herein is based on all available technical data and information as of April 1, 2019, which is the effective date of the report in full.

2.2   Sources of Information

A portion of the background information and technical data presented in this report was obtained from the following documents:

> Beaver, D.E., 1986. *Metal Zonation and Fluid Characteristics in the Vein and Skarn System, South Mountain Mining District, Owyhee County, Idaho*, M.S. Thesis, Washington State University, May 1986.

> Centra Consulting, Inc., 2013. *Owyhee Gold Trust Conditional Use Permit Application for the South Mountain Mine in Owyhee County, Idaho*; prepared for Owyhee Gold Trust, LLC, August 2013.

> Freeman, L.K., 1982. *Geology and Tactite Mineralization of the South Mountain Mining District, Owyhee County, Idaho*; M.S. Thesis, Oregon State University, April 1, 1982.

Kleinfelder West, Inc., 2008. *Resource Data Evaluation, South Mountain Property, South Mountain Mining District, Owyhee County, Idaho*; internal report prepared for Thunder Mountain Resources, May 14, 2008.

Northwest Groundwater & Geology, 2010. *NI 43-101 Technical Report, South Mountain Project, Owyhee County, Idaho*; prepared for Thunder Mountain Gold, Inc., March 23, 2010.

The information contained in current report Sections 4 through 8 was largely presented in, and in some cases, is excerpted directly from, the reports listed above. HRC has reviewed this material in detail, and finds the information contained herein to be factual and appropriate with respect to guidance provided by NI 43-101 and associated Form NI 43-101F1.

Additional information was requested from and provided by THMG. In preparing Sections 9 through 13 of this report, the authors have relied in part on historical information including exploration reports, technical papers, sample descriptions, assay results, computer data, maps and drill logs generated by previous operators and associated third party consultants. Historical documents and data sources used during the preparation of this report are cited in the text, as appropriate, and are summarized in current report Section 19.

2.3   Qualified Persons and Personal Inspection

This report is endorsed by the following Qualified Persons, as defined by NI 43-101: Ms. J.J. Brown, P.G., Mr. Jeffrey Choquette, P.E., and Mr. Randy Martin, all of HRC.

Ms. Brown, P.G., SME-RM, has 20 years of professional experience as a consulting geologist and has contributed to numerous mineral resource projects, including more than twenty gold, silver, and polymetallic resources throughout the southwestern United States and South America over the past five years. Ms. Brown is specifically responsible for report Sections 2 through 8 and 15 through 24.

Mr. Choquette, P.E., is a professional mining engineer with more than 20 years of domestic and international experience in mine operations, mine engineering, project evaluation and financial analysis. Mr. Choquette has been involved in industrial minerals, base metals and precious metal mining projects around the world and is responsible for current report Sections 13 and 25 through 27.

Mr. Martin is a Mineral Resource Modeler and Mine Planning Engineer with a B.S. in Metallurgical Engineering and an M.S. in Mineral Economics from the Colorado School of Mines. He has over thirty-five years of experience in mineral resource modeling, mine design, process evaluation, and overall project evaluation. He is responsible for current report Sections 1, 9 through 12, and 14.

HRC representatives and QP's J.J. Brown and Randy Martin conducted an on-site inspection of the South Mountain Project on April 2 through 4, 2018. While on site, HRC conducted general site and geologic field reconnaissance, including inspection of on-site facilities and examination of underground bedrock exposures and drill collar locations in the Sonneman drift. HRC also examined select core intervals from historic and recent drilling, obtained a variety of duplicate samples for independent check sampling, and reviewed with THMG geology staff the conceptual geologic model, data entry and document management protocols, and

drilling and sampling procedures and the associated quality assurance and quality control ("QA/QC") methods presently employed. The QP's have independently accessed and relied on MD&As, filed by THMG in both the U.S. and Canada, to verify that no drilling, sampling, or other material work has been carried out since the date of the site inspection. Any updated or additional work done on the site is documented by THMG, as required under Section 13 or 15(b) of the Securities and Exchange Act of 1934, with each 10K and/or 10Q filing, providing further certification of the information presented in the MD&As filed on Sedar.

2.4 Units of Measure

Unless otherwise stated, all measurements reported herein are Imperial units and currencies are expressed constant 2017 US dollars ("US$"). Gold and silver values are reported in parts per million ("ppm") or in Troy ounces per ton ("oz/t"). Tonnage is reported as short tons ("t"), unless otherwise specified. Lead, zinc, and copper values are reported in weight percent (%).

3.   RELIANCE ON OTHER EXPERTS

HRC has fully relied upon and disclaims responsibility for information provided by THMG regarding property ownership, mineral tenure, and permitting and environmental aspects of the South Mountain Project. Property title and mineral tenure, as presented in current report Section 4, was provided through personal communication with Mr. Jim Collord, Vice President and COO of THMG, along with Mr. Eric Jones, CEO of THMG, on April 2 and 3, 2017, and in written format via the following documents:

- *Stock Sale Agreement between Thunder Mountain Resources, Inc., South Mountain Mines, Inc., Willmington Trust Company, Roger Millilken, the Ora K. Smith Trust, and the Roger Milliken Trust*; effective May 31, 2007.

- *Mineral Title and Title History Report of South Mountain Inc. Property in Owyhee County, Idaho*; prepared by Carol T. Davis of Land Records Research Company for Thunder Mountain Resources, Inc., August 9, 2007.

- *Option Agreement made between BeMetals Corp. and BeMetals USA Corp. and Thunder Mountain Gold, Inc. and Thunder Mountain Resource,s Inc. and South Mountain Mines, Inc.*; effective February 27, 2019.

A portion of the environmental and permitting information presented Section 4 is taken from the following documents:

- *Owyhee Gold Trust Conditional Use Permit Application for the South Mountain Mine in Owyhee County, Idaho;* prepared by Centra Consulting, Inc. for Owyhee Gold Trust, LLC, August 2013.

- *Resource Data Evaluation, South Mountain Property, South Mountain Mining District, Owyhee County, Idaho*; prepared by Kleinfelder West, Inc. for Thunder Mountain Resources, May 14, 2008.

Additional information regarding environmental and permitting aspects of the South Mountain Project was provided via personal communication with THMG staff on April 2 and 3, 2017.

4. PROPERTY DESCRIPTION AND LOCATION

4.1 Project Location and Ownership

The South Mountain Project is located in southwestern Idaho's Owyhee County, approximately 70 air miles southwest of Boise, Idaho, and approximately 24 miles southeast of Jordan Valley, Oregon. The Project is situated entirely within the State of Idaho at approximately 42°44'41.65"N latitude and 116°55'13.48"W longitude (Figure 4-1). Map coverage of the Project area is provided by the Cliff, Idaho, and the Flint Creek, Idaho, 7.5- and 15-minute U.S.G.S. topographic quadrangles, respectively.
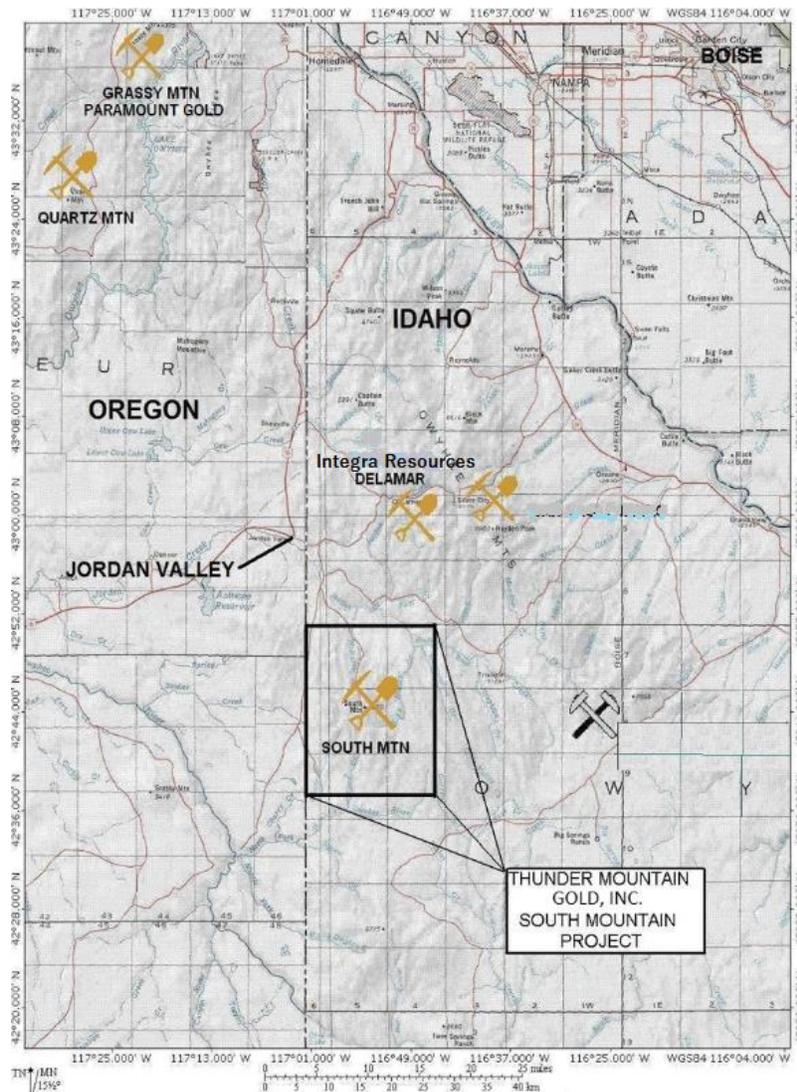
Figure 4-1 South Mountain Project Location

SMMI is the owner of a 75% equity interest in Owyhee Gold Territory LLC ("OGT"), the owner of the South Mountain Project, and a mining lease with option to purchase the South Mountain Project granted by OGT to SMMI and the remaining 25% equity interest in OGT. TMRI is the legal and beneficial owner of all issued

and outstanding shares of SMMI. THMG is the legal and beneficial owner of all of the issued and outstanding shares of TMRI.

In accordance with the terms of the option agreement dated February 27, 2019 (the "Option Agreement") between BMET, BMET USA, THMG, TMRI and SMMI, THMG has agreed to grant to BMET USA an option to acquire all of the issued and outstanding shares of SMMI. SMMI currently holds a 75% interest in the Project and has the right to acquire the remaining 25% subject to a 5% Net Returns Royalty capped at US$5 million on or before November 3, 2026.

In order to complete the Acquisition, the following applies, BMET:

1. Made an initial cash payment of US$100,000 upon THMG delivering voting support agreements from shareholders controlling over 50% of outstanding THMG shares;

2. Upon satisfaction of certain conditions precedent, including receipt of TSX Venture Exchange acceptance and all requisite THMG shareholder approvals:

   a. purchase 2.5 million shares of common stock of THMG at US$0.10 per share by way of private placement; and

   b. issue 10 million common shares of BMET to THMG

3. Make four cash payments of US$250,000 each on or before the 6, 12, 18- and 24- month anniversary dates, respectively, from when THMG has satisfied certain conditions precedent and items 1 and 2 above have been completed;

4. Complete a Preliminary Economic Assessment ("PEA") for the Project in potential subsequent phases of work within a two year period from completion of certain conditions precedent; and

5. Make a final value payment to Thunder Mountain consisting of cash, common shares of BMET, or a combination of both at the discretion of BMET. The final payment will be the greater of either US$10 million or 20% of the after-tax net present value of the Property as calculated in a PEA study completed by an agreed independent author. The final payment will be decreased by US$850,000 to account for certain cash payments previously made under items 1 and 2 above, the value of the 10 million BMET shares issued under item 2 above, as well as certain liabilities of SMMI to be assumed on Acquisition. The final value payment shall be capped at a maximum of 50% of the market capitalization of BEMETs' as of the completion date of the Acquisition.

Pursuant to the Option Agreement, BMET will have two years to complete the Acquisition (subject to extension in certain circumstances). BMET will become the operator of the Project upon the completion of certain conditions precedent and will solely fund the exploration work potentially leading to the completion of a PEA at South Mountain in subsequent phases of work.

The South Mountain Project area is comprised of 17 patented and 21 unpatented contiguous mining claims covering a total of approximately 616 acres, and an additional 489 acres of leased private land (Figure 4-2, Table 4-1). Included within the Project, and also governed by the Option Agreement, is a 360-acre millsite not contiguous with the mining claims, purchased by THMG in 2013. The millsite sits approximately 6.8 road

miles from the existing workings, with access provided by a newly constructed, 1.2-mile haul road between the millsite and Owyhee County South Mountain Road (Figure 4-3). Patented and unpatented claim details are summarized in Tables 4-2 and 4-3. Annual payments for leased private land surface are summarized in Table 4-4.
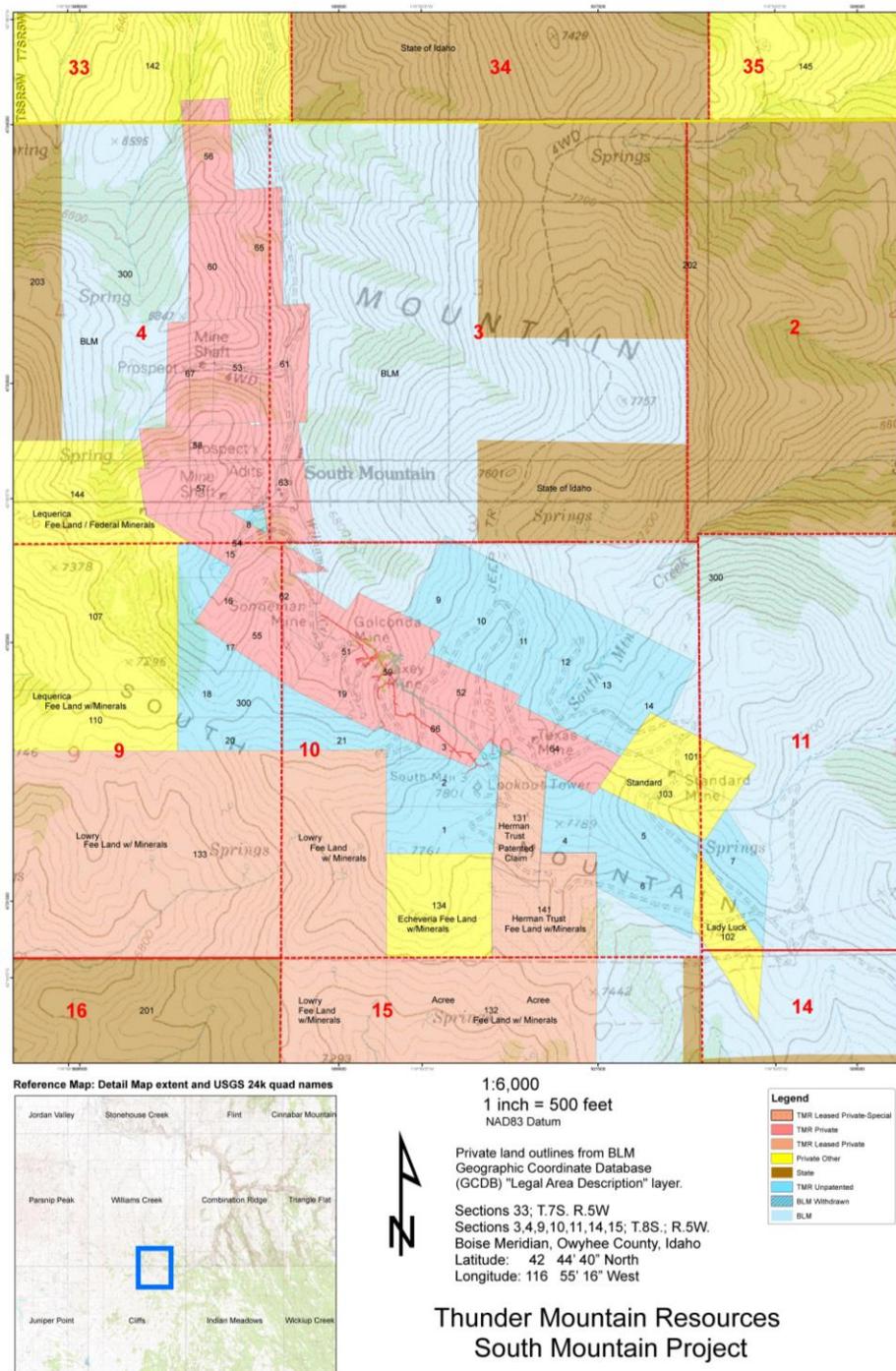
Figure 4-2 South Mountain Project Claim Areas

Table 4-1 Legend Explanation for Figure 4-2

Parcel No.	Acreage	Land Type
51-67 (Red)	326	Patented Claims
1-21 (Blue)	290	Unpatented Claims
133 (Pink)	376	Leased: Lowry
132 (Pink)	113	Leased: Acree
131, 141 (Pink)	56	Leased: Herman (In Dispute)
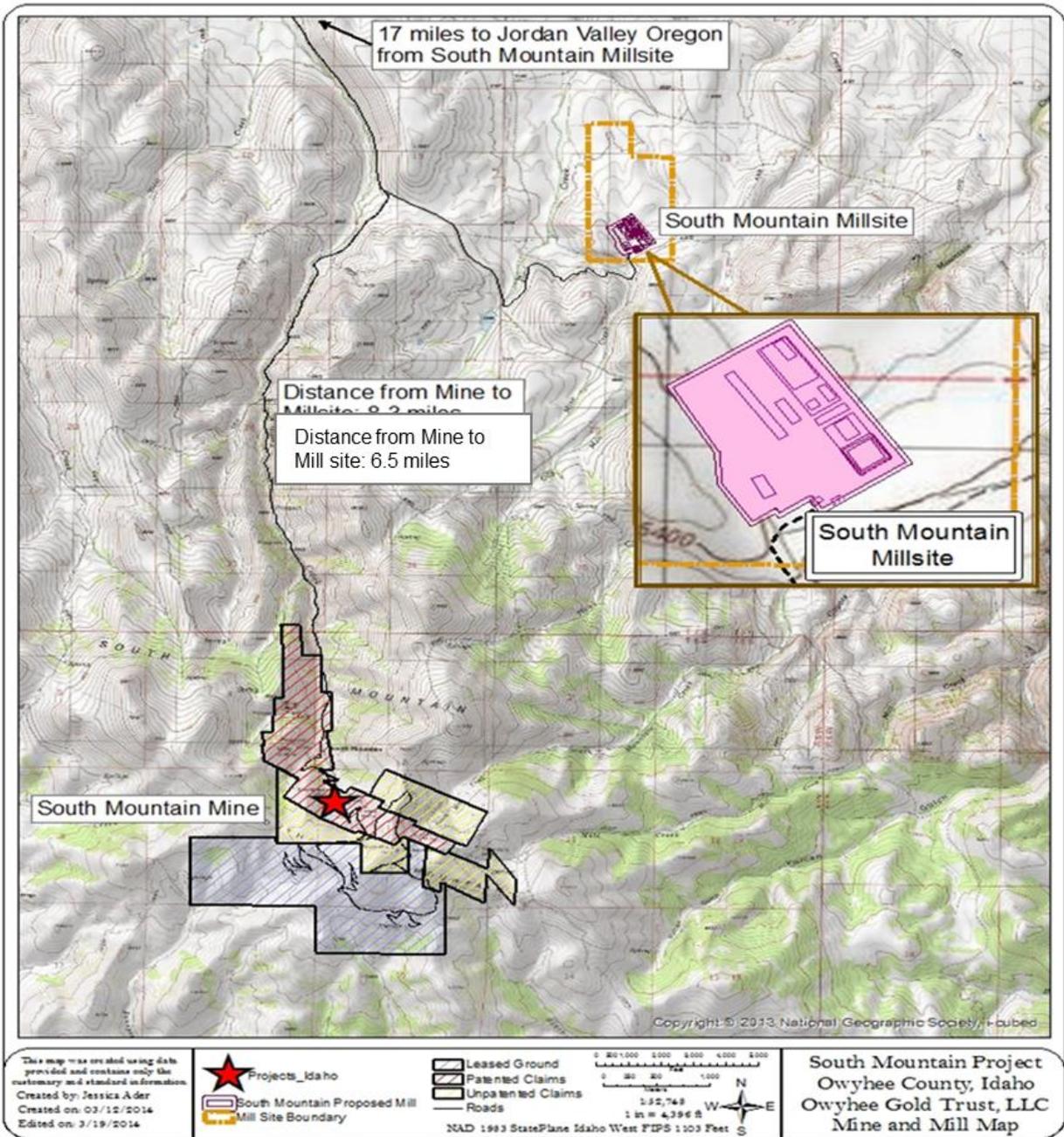
Figure 4-3 South Mountain Project, Millsite Location

Table 4-2 South Mountain Project, Patented Claims

Name	Mineral Survey	Patent No.	Survey Date	Ownership
Illinois	1446	32995	17-Sep-00	OGT* (leased to SMMI)
Michigan	1446	32995	17-Sep-00	OGT* (leased to SMMI)
New York	1446	32995	17-Sep-00	OGT* (leased to SMMI)
Tennessee	1446	32995	17-Sep-00	OGT* (leased to SMMI)
Oregon	1446	32995	17-Sep-00	OGT* (leased to SMMI)
Massachusetts	1446	32995	17-Sep-00	OGT* (leased to SMMI)
Washington	1446	32995	17-Sep-00	OGT* (leased to SMMI)
Maine	1446	32995	17-Sep-00	OGT* (leased to SMMI)
Idaho	1446	32995	17-Sep-00	OGT* (leased to SMMI)
Vermont	1446	32995	17-Sep-00	OGT* (leased to SMMI)
Texas	1447	32996	17-Sep-00	OGT* (leased to SMMI)
Florida	1447	32996	17-Sep-00	OGT* (leased to SMMI)
Alabama	1447	32996	17-Sep-00	OGT* (leased to SMMI)
Virginia	1447	32996	17-Sep-00	OGT* (leased to SMMI)
Mississippi	1447	32996	17-Sep-00	OGT* (leased to SMMI)
Queen	3400	1237144	27-Oct-64	OGT* (leased to SMMI)
Kentucky	3400	1237144	27-Oct-64	OGT* (leased to SMMI)

The BLM serial register pages for the unpatented claims list TMRI as the current claimant, but the unpatented claims were deeded from TMRI to OGT pursuant to a Quitclaim Deed dated October 31, 2013, recorded in Owyhee County, Idaho on October 31, 2013, as Instrument No. 282464.

HARD
ROCK
CONSULTING, LLC

Table 4-3 South Mountain Project, Unpatented Claims

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

The BLM serial register pages for the unpatented claims list TMRI as the current claimant, but the unpatented claims were deeded from TMRI to OGT pursuant to a Quitclaim Deed dated October 31, 2013, recorded in Owyhee County, Idaho on October 31, 2013, as Instrument No. 282464.

Table 4-4 South Mountain Project, Annual Lease Expenses

Owner	Agreement	Amount	Acres	Current Annual Lease Payments
Lowry	Oct. 10, 2008	$20/acre	376	$ 7,520 per year
		$30/acre staring 7th year		$ 11, 280 per year
Acree	20-Jun-08	$20/acre	113	$ 2,260 per year
		$30/acre staring 7th year		$ 3,390 per year
*OGT LLC (THMG through SMM)	6-Nov-16	$5,000 per year, with a capped $5M Net Returns Royalty, payable at 5% NPI from Mining	1,465	$5,000 per year
Herman	23-Nov-09	$30/acre through 2026	56	In Dispute

The private land lease agreements include, among others, a mining lease with option to purchase dated November 13, 2016 between OGT and SMMI. The claims and leased lands comprising the Project are subject to a 5% net returns royalty in favor of OGT, which is capped at $5M and certain other leased land covering approximately 489 acres are subject to a 3% net smelter returns royalty plus an annual per-acre rental fee. The Herman Lease, which is under dispute, has no associated impact on the overall property or recommended work plan, as no activities are presently proposed within this lease area. There are no other royalties or encumbrances associated with the patented or unpatented claims. The unpatented claims require annual holding fees of $155 per claim to be paid to the Bureau of Land Management and the patented claims are subject to property taxes levied by Owyhee County.

The Laxey, Golconda and Sonneman level workings and the Texas shaft are the original historic workings of the South Mountain Project and are located within the present day patented claim block. THMG's exploration efforts to date have largely focused on targeting the down-dip extensions of the past producing, massive sulfide mineralized zones. Exploration targets outlined during recent field seasons are largely located on the adjacent, leased ground. The general location of the existing workings and exploration target area are shown on Figure 4-4.
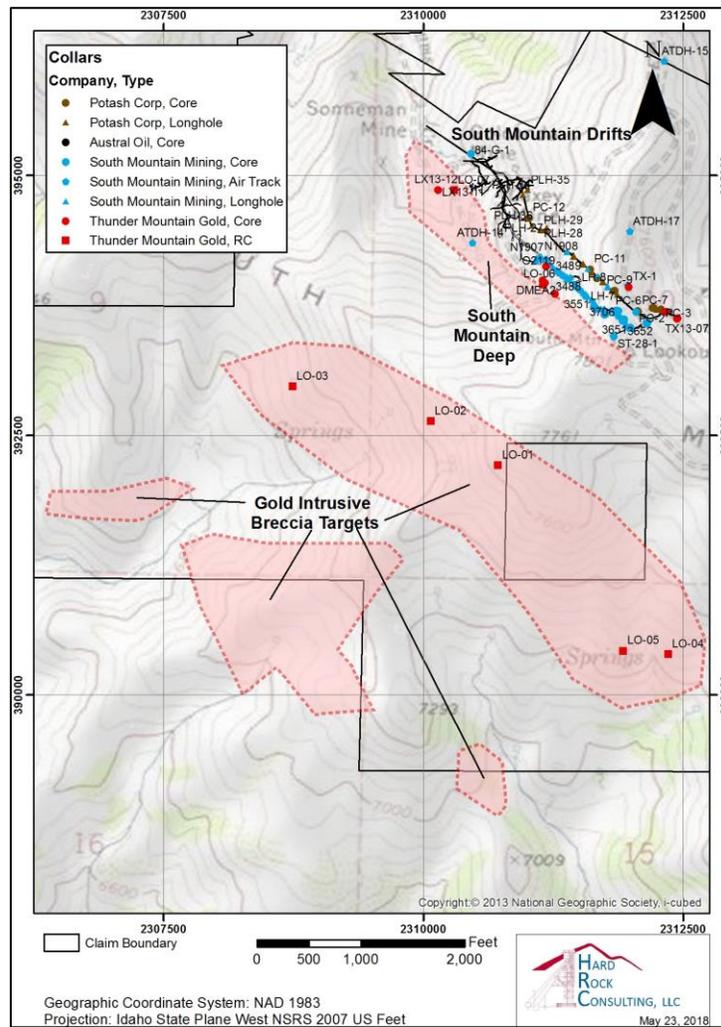
Figure 4-4 South Mountain Mine Workings and Exploration Targets

4.2   Permitting and Environmental Liabilities

The South Mountain Project is largely located on and surrounded by private land surface. Future agreements with individual private land owners may be necessary to establish infrastructure such as roads and power lines. The private land setting greatly simplifies and streamlines the permitting and approval process since the Project does not require a federal land management (e.g. United States Bureau of Land Management or the United States Forest Service), which in turn would have required an Environmental Impact Statement under the federal National Environmental Policy Act.

In 2013, THMG completed two Conditional Use Permit ("CUP") applications, one for the mine site and one for the mill site, thru Owyhee Gold Trust, LLC. Both CUPs were submitted to and approved by Owyhee County in 2013, and the two-year time frame for completion of work under each was extended by the County for an additional four years beginning in 2016. Both the mine and the mill site are located on private land surface, and as such require no other permit authorization for surface disturbance.

Also in 2013, THMG filed for and received an Army Corps of Engineers (DA) Nationwide Permit (NWP) No. 14: Linear Transportation Projects, which allowed THMG to place 660 feet of 48-inch galvanized culvert through the Sonneman waste rock dump in order to segregate historic and future mined rock from direct contact with Williams Creek to ensure compliance with the NPDES Stormwater Permit, described immediately below.

In 2012, EPA "acknowledge[d] receipt of a complete Notice of Intent form seeking coverage under EPA's [NPDES] Construction General Permit (CGP), activated on Thursday, May 17, 2012." In accordance with this NPDES Permit, THMG developed a site wide Storm Water Pollution Prevention Plan (SWPPP) under guidance of the EPA NPDES Form 3510-9 and per EPA IDR120000 and EPA Tracking Number IDR12AX72. An independent consultant was hired to carry out this planning for the Company.

The IDEQ completed a Preliminary Assessment ("PA") at the Sonneman mine in July 2002 that included a property description and mitigation/exposure pathways and potential targets.   Based on the findings of the PA, the U.S. Environmental Protection Agency ("EPA") recommended further action and IDEQ initiated an EPA-funded study. The extensive study and report (IDEQ, 2005) were completed in March 2005 under contract with Region 10 of the EPA. The 2005 IDEQ study identified two areas of concern for risks to human health and the environment at the site: 1) the ore and waste stockpiles hear 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 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.

In 2007, 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 HOPE 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.

As part of their due diligence in 2007, THMG conducted water sampling at the mine portals and various other locations along Williams Creek. They also contracted with Enviroscientists, Inc. of Reno, Nevada, to conduct an environmental data review and site assessment. Based on the completed state and federal site work and environmental evaluations, THMG determined that environmental liabilities associated with the Project are minimal, and therefore an acceptable risk, given the history of state and federal and environmental evaluations and remediations in and around the site. There are no current applicable federal or state environmental orders regarding the site.

THMG also completed a number of water quality sampling programs on a quarterly basis from 2012 through 2014, during exploration and pre-development work. Several sample stations were established along the stream from the area below the Sonneman waste rock dump and historic tailings repository. No significant variations in quality, trends or concerns were noted in the sampling.

The South Mountain Project is not subject to any other known environmental liabilities, and HRC knows of no other significant factors or risks which might impact BMET's access, title, or right or ability to perform work on the property.

5.   ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1   Access and Climate

Primary access to the South Mountain Project is provided by Interstate 84 West out of Boise, roughly 22 miles to Nampa, Idaho, and then south on U.S. Highway 95 for 63 miles to Jordan Valley, Oregon. The mine is located approximately 24 miles southeast of Jordan Valley via 7 miles of paved road and 17 miles of improved and unimproved gravel and dirt roads. Access throughout the claim block, including to old workings and drill pads, is provided by an assortment of secondary dirt roads and jeep trails requiring four-wheel-drive or all-terrain vehicles. The primary access road to and through the Project area also provides public and BLM access to the South Mountain Lookout, one of two remaining active lookouts in the state of Idaho.

The climate in the vicinity of the Project area is semi-arid, with long snowy winters and short, cool, dry summers. Average annual temperatures range from 20°F to 81°F. Precipitation occurs largely as spring rainstorms and winter snowfall. Total annual precipitation averages 20 to 40 inches, and largely occurs as winter and late spring snowfall. Exploration and development can be carried out year-round, with routine plowing of the access road required during the winter months.

5.2   Local Resources and Infrastructure

The community nearest to the Project is Jordan Valley, Oregon, roughly 24 miles to the northwest of the Project area. Jordan Valley hosts a regional population of about 450 and offers limited standard municipal amenities. The nearest major supply center is the city of Nampa, roughly 100 miles northeast of the Project area. Commercial air and rail service are both available in Nampa, which is served by the Nampa Municipal Airport and Union Pacific's Northwest Corridor rail line. Ample skilled and unskilled labor can be found in Nampa and the greater Boise-Nampa metropolitan area.

Existing surface rights are sufficient for all presently proposed development and operations activities. Existing infrastructure within the Project area includes six cabin-style bunkhouses (circa 1975) and a small number of other historic wooden structures, as well as a large fabric-sided equipment maintenance and storage facility situated near the entrance to the Sonneman adit. Drill core and various supplies and equipment are stored on-site in a series of locked, Connex-style storage containers located along the main access road just above the bunkhouse cabins.

Electrical power is currently supplied by portable diesel generators. A three-phase power line could be established by upgrading of about 15 miles of existing two-phase line, with construction of an additional 4.5 miles of new line from the county road to the mine site. Line power from Idaho Power`s distribution line to the mill site would require roughly one mile of new line construction and another 17 miles of existing line upgrades, along with some transformer and line upgrades near Jordan Valley, Oregon.

Potable water is available within the Project area from a number of existing groundwater springs. Water for milling operations is expected to be provided by an onsite well, though a pipeline could potentially be

engineered to carry water to the mill from mine workings, providing water for milling operations as well as a means for dewatering the mine.

5.3   Physiography

South Mountain is a broad, dome-shaped uplift associated with the Owyhee Mountain Range just to the north. The Project area is topographically separated from the main Owyhee range by a broad, northwest-trending valley, and the local terrain is generally steep, with elevations ranging from 5,000 ft amsl in the valley bottoms to roughly 7,800 ft at the summit of South Mountain.

Surface waters drain radially to the north and northeast of South Mountain via Williams Creek and South Mountain Creek, respectively, and to the east via Mill Creek, south via Buck Creek, West Fork Creek and Juniper Creek, and southwest and west via Soldier Creek and Lone Tree Creek, respectively. Local vegetation varies with elevation, aspect, and proximity to water. The lower elevations are generally covered by sparse sagebrush and grasses, with a mixed forest of Douglas fir and Aspen at the higher elevations, and sub-alpine meadow flora near the mountain summit.

6.   HISTORY

6.1   Historical Ownership

Mineralization in the form of gold-bearing quartz veins was first discovered at South Mountain in 1868, with subsequent mining activity leading to the discovery of the oxidized silver-lead veins.

The South Mountain Consolidated Mining and Smelting Company purchased the principal mines in the district, including the earliest workings of the South Mountain Project, in 1874. The company constructed a smelting furnace for processing crude ore, but the lack of a market for the ore caused the company to fail, and the district to be largely abandoned, in 1875. No further development occurred in the district from 1875 to 1906. In 1906, the American Standard Mining Company shipped 14 tons of ore prior to shut down.

The Exploration Company of California completed development of the Sonneman, Golconda, and Laxey levels of the South Mountain mine in 1929 through 1931, concentrating primarily on the Laxey ore zone. In 1940 through 1946, the International Smelting and Refining Co. (Anaconda) began metal production from the Laxey ore zone. Approximately 53,635 tons of ore were direct shipped to a smelter in Tooele, Utah during this time.

The Texas shaft was active from 1950 to 1955 under the South Mountain Mines ("SMM") partnership. The partnership constructed a single-stage (copper-lead circuit) flotation mill capable of handling 150 tons per day, and reportedly extracted 6,703 tons of ore. The Defense Minerals Exploration Administration ("DMEA") evaluated the property for its strategic zinc potential during this same time frame.

In 1956, the property was leased for two years to the Potash Company of America, which operated sporadically until 1968, when the 17 patented claims, which comprise the patented claim block of the present day South Mountain Project, were purchased by W.A. Bowes, Inc.

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. Following purchase of the property, W.A. Bowes remained as managing operator. The property was acquired by Thunder Mountain Resources, Inc., a wholly owned subsidiary of THMG, in September 2007 following due diligence work on the title, environmental considerations, and geology.

6.2   Historic Exploration and Development

Mineralization in the form of gold-bearing quartz veins was first discovered at South Mountain in 1868, and subsequent mining activity led to the discovery of the oxidized silver-lead veins. Early underground exploration and mine development produced the original workings of the Sonneman, Laxey, and Golconda levels and the Texas shaft. By 1875, the district was largely abandoned due to failure of the principal mining company and the lack of a market for the ore. No further exploration or development occurred in the district through the early 1900's.

The Exploration Company of California completed exploration and development of the Sonneman, Golconda, and Laxey levels in the early 1930's, 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 as part of the strategic materials effort for World War II. During this same timeframe, the Defense Minerals Exploration Administration (DMEA) evaluated the Project for its strategic zinc potential, overseeing mining and exploration of the Project both during and for some time after the War. The Texas shaft was reactivated by the South Mountain Mines Partnership in 1950 and was worked for a period of roughly 5 years.

In 1975 and 1976 the Idaho Bureau of Mines and Geology ("IBMG") conducted a geology and geochemical reconnaissance over a 450-square mile area which included the South Mountain Mining District. The purpose of the IBMG survey was to evaluate the greater region for potential mineralized zones. 583 stream sediment samples were collected and analyzed at the Idaho Bureau of Mines and Geology analytical laboratory, University of Idaho. The samples were analyzed for zinc, nickel, lead, silver, and copper by atomic absorption spectroscopy. Bennett (1976) reports that cold extractable copper ("CxCu") and cold extractable total heavy metals ("CxHM") were analyzed using Colorimetry analysis. No values were found which were exceedingly high for any element, though the study did note high values of zinc and copper concentrated south of South Mountain.

The IBMG reports that regional airmagnetic and gravity surveys were completed over the project area (Bennett, 1976). Due to the regional nature of the geophysical surveys there is nothing significant to report regarding the South Mountain project.

W.A. Bowes managed the Project from 1977 until the mid-1980's, conducting geophysical, soil and rock chip sampling and analysis programs. Bowes (1985) reports that geophysical surveys have been conducted in the vicinity of South Mountain since 1968, consisting primarily of reconnaissance VLF surveys utilizing EM-16 instruments. In 1978, Phoenix Geophysics, Inc., Denver, Colorado, contracted IP and Resistivity surveys. Twelve preliminary lines delineated two anomalous IP zones coinciding with the Laxey marble, and another marble unit to the north. The initial survey was followed up with additional surveys oriented within the anomalous zones. The EM response from these ore zones was generally weaker than expected from sulfide zones in other deposits. In 1982 a VLF survey was run, and again the EM response was poor. The VLF delineated apparent structural boundaries with east-west, northwest, and northeast trends.

After acquisition of the Project by an eastern money interest in the the mid-1970s, South Mountain Mining ("SMM") was incorporated and proceeded to conduct expansive exploration in the form of tunneling and underground and surface drilling. SMM personnel have verbalized to THMG personnel that approximately $6 million was spent at the Property by them during this period, culminating in preparation of an internal feasibility study.

SMM collected 60 channel samples in the Sonneman drift (Figure 9-1) to delineate mineralization in the DMEA and Texas zones. Orientations for these samples are either along the length of the drift, which is approximately along strike of the deposit, or across the drift. Significant results for the channel sampling program are presented in Table 6-1.

Table 6-1 Significant Intervals from SMM Channel Sampling

ID	From	To	Length	Ag (opt)	Zn %	Au (opt)	Cu %	Pb %
CH_2151	0.0	6.0	6.0	10.01	13.47	0.19	0.28	4.16
CH_2152	0.0	6.0	6.0	6.05	17.79	0.59	0.22	3.08
CH_2153	0.0	8.4	8.4	10.34	11.48	0.16	0.13	5.11
CH_2154	0.0	11.5	11.5	29.08	15.97	0.27	0.34	15.14
CH_2155	0.0	14.0	14.0	16.30	15.69	0.33	0.20	8.62
CH_2156	0.0	17.0	17.0	5.88	15.90	0.31	0.23	2.02
CH_2157	0.0	16.0	16.0	1.57	16.45	0.21	0.09	0.37
CH_2158	0.0	9.6	9.6	2.75	16.97	0.17	0.12	1.02
CH_2159	0.0	9.0	9.0	2.00	15.40	0.13	0.10	0.79
CH_2160	0.0	6.6	6.6	6.60	15.16	0.12	0.23	4.51
CH_2161	0.0	4.2	4.2	1.92	11.10	0.06	0.17	1.00
CH_2162	0.0	6.0	6.0	1.48	12.88	0.10	0.06	0.68
CH_2164	0.0	6.0	6.0	2.40	16.20	0.06	0.08	0.65
CH_2165	0.0	6.4	6.4	3.56	12.48	0.06	0.09	0.95
CH_2167	0.0	7.5	7.5	17.08	0.19	0.02	0.67	0.41
CH_2168	0.0	5.0	5.0	15.69	0.20	0.01	2.83	0.23
CH_2169	0.0	5.0	5.0	6.76	0.40	0.01	1.08	0.35
CH_2171	0.0	3.8	3.8	6.61	0.29	0.02	0.96	2.39
CH_2172	0.0	2.0	2.0	36.29	6.20	0.15	1.57	5.82
CH_2173	0.0	1.0	1.0	60.41	13.00	0.35	0.19	11.52
CH_2175	0.0	2.0	2.0	6.08	6.31	0.00	1.73	2.49
CH_2176	0.0	5.0	5.0	19.94	30.93	0.55	1.94	2.90
CH_2177	0.0	2.0	2.0	4.78	16.67	0.04	0.16	2.70
CH_2178	0.0	5.0	5.0	2.66	14.89	0.06	0.18	1.12
CH_2180	0.0	5.0	5.0	12.31	12.63	0.20	0.19	8.20
CH_3469_3481	0.0	65.0	65.0	3.90	24.56	0.26	0.34	0.84
CH_3482_3486	0.0	25.0	25.0	3.83	12.14	0.19	0.83	0.63
CH_3490_3534	0.0	55.0	55.0	6.21	9.02	0.17	0.94	0.46
CH_3554_3563	15.0	40.0	25.0	27.22	12.19	0.00	2.76	0.89
CH_3571_3573	0.0	5.0	5.0	9.47	11.57	0.04	3.12	0.38
CH_3600_3605	5.0	15.0	10.0	5.83	1.28	0.05	3.60	0.00
CH_3653	0.0	3.0	3.0	14.33	0.11	0.01	0.30	0.81
CH_3654	0.0	6.0	6.0	13.08	0.36	0.01	1.53	1.72
CH_3655	0.0	3.5	3.5	28.34	4.60	0.01	0.47	7.27
CH_3656	0.0	5.0	5.0	27.97	3.54	0.01	4.59	0.61
CH_3657	0.0	7.0	7.0	5.59	0.00	0.02	0.59	0.12
CH_3658	0.0	6.0	6.0	14.44	0.14	0.01	3.81	0.22
CH_3659	0.0	6.0	6.0	15.20	0.11	0.00	5.91	0.14
CH_3660	0.0	6.0	6.0	13.14	0.07	0.00	3.91	0.78
CH_3661	0.0	4.5	4.5	22.40	3.97	0.05	1.10	4.48
CH_3662	0.0	2.8	2.8	77.77	3.22	0.29	0.07	19.27
CH_3663	0.0	2.0	2.0	26.14	0.26	0.52	5.34	0.39
CH_3664	0.0	2.0	2.0	5.47	0.29	0.22	0.13	0.29
CH_3721_3646	85.0	100.0	15.0	5.80	0.04	0.17	2.35	0.01
3721_3656	170.0	195.0	25.0	3.79	0.04	0.00	0.50	0.03
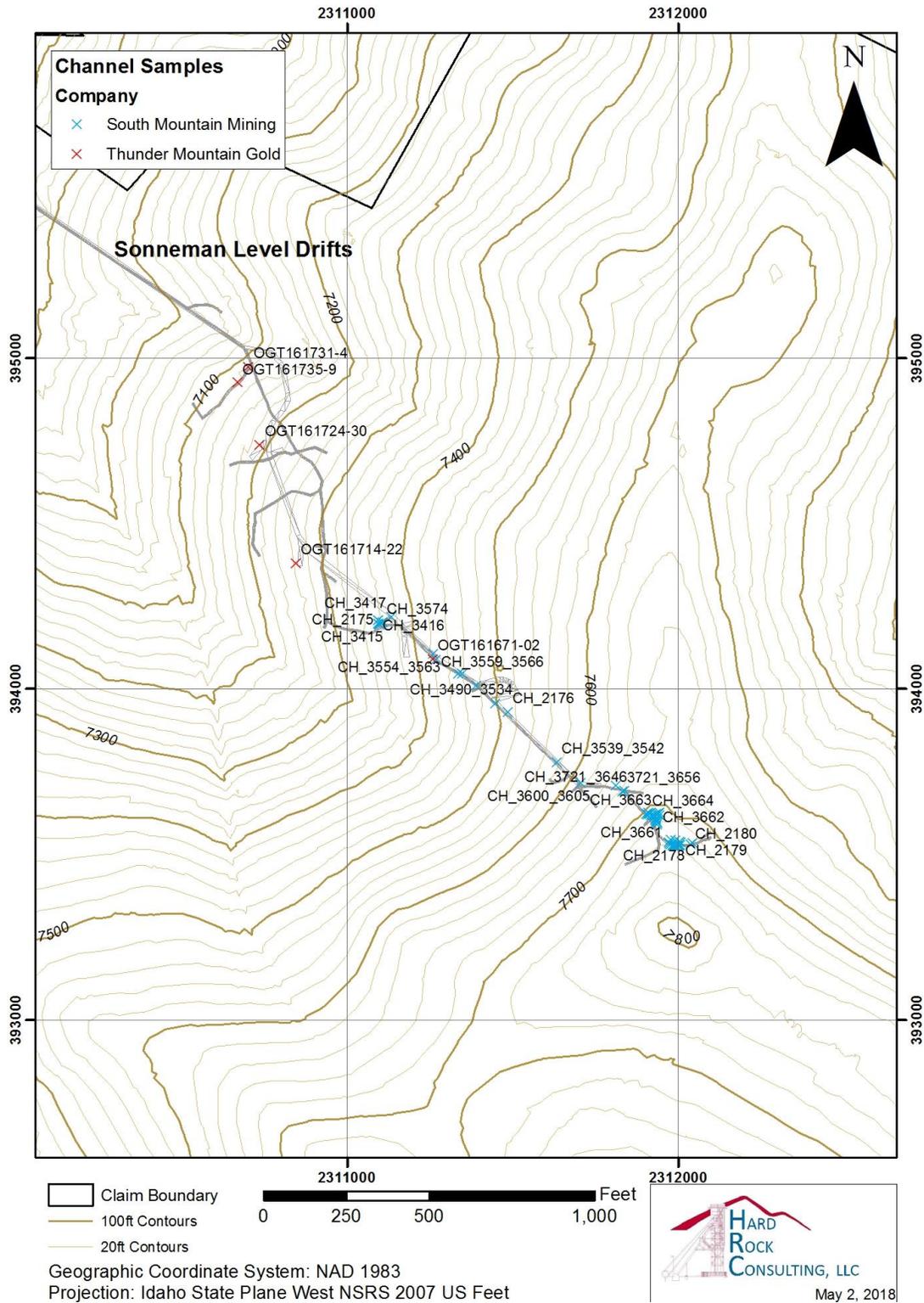
Figure 6-1 Plan View of SMM and THMG Channel Samples Along the Sonneman Drift

6.2.1   THMG Exploration and Pre-development Work

Other than drilling, exploration (and development) activities carried out by THMG since 2008 include:

- Adjoining property evaluation and acquisition
- Title work for the patented claims and private land parcels
- Surveying the claim boundaries,
- Rehabilitation of the Laxey and Sonneman drifts, most to a production level (12 ft by 12 ft),
- As-built survey of the Laxey and Sonneman drifts,
- Channel sampling of the Sonneman drift at the intersections of massive sulfide mineralization,
- Geologic mapping and geochemical sampling specific to an intrusive breccia target, and
- A ground magnetics survey as well as compiling and reprocessing public domain geophysical surveys.

The procedures, parameters, and general results of each of the exploration efforts listed above are summarized in the following paragraphs.

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 validated by Wittman (2010).

Rehabilitation and Surveying of the Laxey and Sonneman Adits and Drifts

The Sonneman portal and existing workings were rehabilitated during 2008. The portal improvements included addition of a lockable steel door system on the Laxey and Sonneman portals. Other activities during the 2008 field season included a survey of the Laxey underground workings to the point that the surveys by SMM could be confirmed. This was essential to develop drill targets to test downdip extensions of the mineralized massive sulfide zones exposed in the underground workings (Wittman, 2010).

Channel Sampling of the Sonneman Drift

THMG collected five channel samples in the Sonneman Drift (Figure 6-1) to delineate mineralization in various parts on the Sonneman level. Orientations for these samples are either from the rib along the length of the Drift, which is approximately along strike of the deposit, or from the ribs of the cross-cuts adjacent to the drift. Significant results for the channel sampling program are presented in Table 6-2.

Table 6-2 Significant THMG Channel Sample Intervals– Sonneman Drift

ID	From	To	Length	Ag (opt)	Zn %	Au (opt)	Cu %	Pb %
OGT161671-02	30.0	160.0	130.00	4.11	16.76	0.09	0.78	0.38
OGT161671-02	209.2	230.2	21.00	3.14	14.02	0.26	0.31	0.37
OGT161671-02	270.2	275.0	4.80	3.21	13.80	0.24	0.14	1.10
OGT161714-22	9.0	32.0	23.00	7.18	14.69	0.01	1.17	0.65
OGT161714-22	76.9	92.0	15.10	8.24	14.04	0.01	2.30	0.59
OGT161735-9	0.0	40.0	40.00	13.97	16.44	0.02	0.70	0.86
OGT161724-30	0.0	40.0	40.00	5.80	5.63	0.00	0.28	2.83

Geologic Mapping

Geological mapping during 2009 outlined a gold-bearing, multilithic intrusive breccia on the south side of South Mountain. Outcrops of intrusive breccia have been mapped along and area approximately 5,000 feet by 1,500 feet and cuts the mixed metasediments 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 biotite (Wittman, 2010).

Geochemical Sampling

Approximately three miles of access roads and drill sites were constructed in 2010 during exploration of the gold breccia. A campaign of road cut sampling was undertaken on the new roads as they were completed. Three sets of samples were obtained along the cut bank of the road. Channel samples were taken on 25-foot, 50-foot or 100-foot intervals, depending upon the nature of the material cut by the road with the shorter spaced intervals being taken in areas of bedrock. A total of 197 samples were collected and sent to ALS Chemex labs in Elko, Nevada. A majority of the samples contained anomalous gold values and in addition to confirming the three anomalies identified by soils sampling, the road cuts added a fourth target that yielded a 350-foot long zone that averaged 378 parts per billion gold (0.011 ounce per ton). Follow up sampling on a road immediately adjacent to this zone yielded a 100-foot sample interval that ran 5.91 parts per million gold (0.173 ounce per ton).

Rock chip samples collected by THMG 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 THMG staff. The locations of the rock chip samples collected by THMG are plotted on the map shown in Figure 6-2. The gold values of the rock chip samples collected by THMG are shown on Figure 6-3. The gold values increase in rock chip samples collected from along the contact of the intrusive breccias. Figure 6-4 shows a comparison of the rock chip samples collected by THMG and by the Kinross staff (Wittman, 2010).

A soil sample program was conducted in the area of the intrusive breccia on South Mountain by THMG 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 6-5 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 6-6. Molybdenum in soil samples is shown in Figure 6-7 (Wittman, 2010).

Also in 2010, Newmont Mining Corp. submitted two bulk samples for gold characterization and modal mineralogy. The samples comprised approximately 1.5 kilograms of -10-mesh rejects from ALS Chemex. Gold characterization was done by examination of gravity concentrates optically and by SEM/MLA. Bulk modal mineralogy was determined by semiquantitative XRD, while trace mineralogy was determined by SEM/MLA. The samples were labeled GXE-18093 (Porphyry) and GXE-18097 (Skarn). The following discussion is excerpted from Newmont (2010):

> "Gold in the porphyry sample (GXE-18093) appears to mostly occur as fine liberated grains. Five liberated grains with average diameter of 76 microns were found, with the coarsest grain having an average diameter of 91 microns. The only gold occurrence in the porphyry sample found by MLA was maldonite (Au_2Bi), which was completely encapsulated in K-feldspar. The porphyry sample comprises 45% plagioclase, 32% quartz, 10% K-feldspar, 9% amphibole, 4% chlorite, and 0.5% biotite. Trace minerals recognized optically and quantified by MLA included ilmenite (0.48%) and pyrrhotite (0.29%) indicating a probable reduced magma.
>
> The skarn sample (GXE-18097) is similar to what is seen at the Phoenix mine with 55% pyrrhotite, 14% pyrite, 11% sphalerite, 5% pyroxene, 5% calcite, and 0.5% galena. Trace minerals of note found optically and quantified by MLA include arsenopyrite (0.41%) and chalcopyrite (0.25%). No liberated gold was found optically, but MLA found 7 electrum grains with average diameter of 18 microns and 14 silver rich electrum grains with average diameter of 10 microns. SEM/EDS spot analyses of 4 electrum grains had an average of 62.7% Au and 37.3% Ag. Spot analyses of 3 silver rich electrum grains had an average of 63.2% Ag and 36.8% Au. This is also similar to Phoenix. Electrum is mostly associated with pyrite and arsenopyrite with 36.5% of electrum grain boundaries shared with pyrite, 25.2% with arsenopyrite, 17.6% with silver-rich electrum, and 20.7% of electrum grain boundaries are free (touching epoxy). For silver rich electrum, 15.4% of the grain boundaries are shared with sphalerite, 15.4% with arsenopyrite, 12.8% with electrum, 11.7% with rutile, 8.6% with pyrrhotite, 3.7% with iron oxide, 1.3% with pyrite, and 31.2% of silver rich electrum grains are free (touching epoxy)."
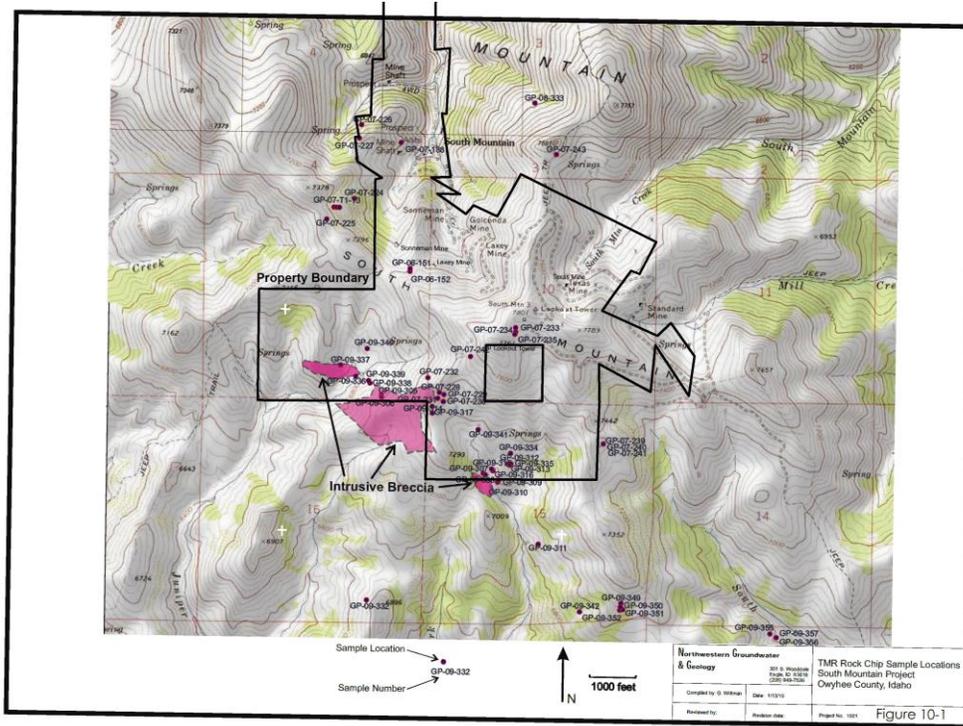
Figure 6-2 Rock Chip Sample Locations (Wittman, 2010)
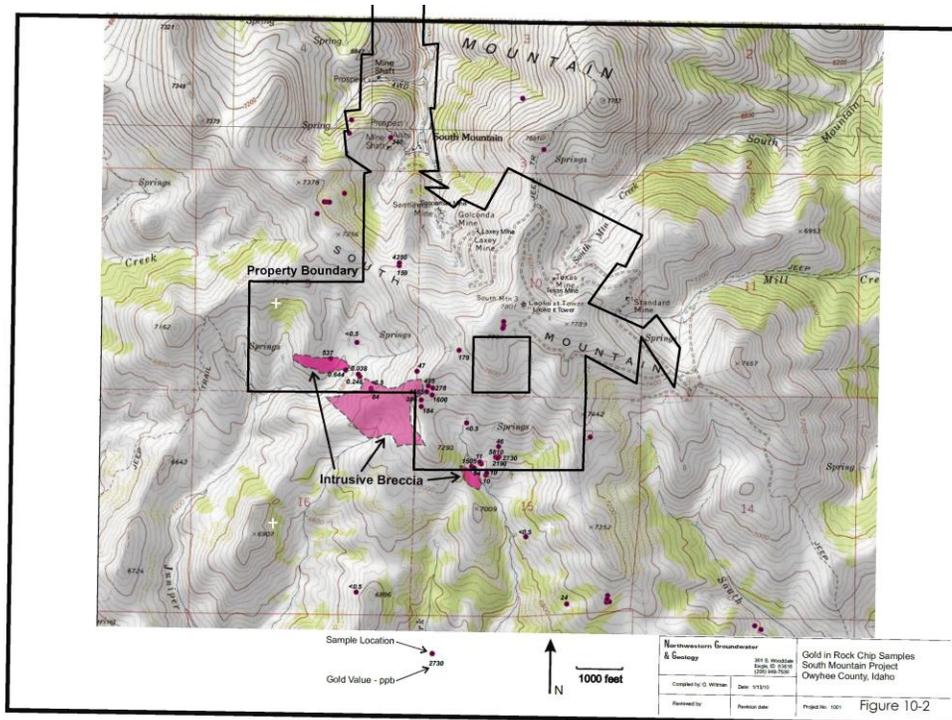
Figure 6-3 Rock Chip Sample Gold Values (Wittman, 2010)
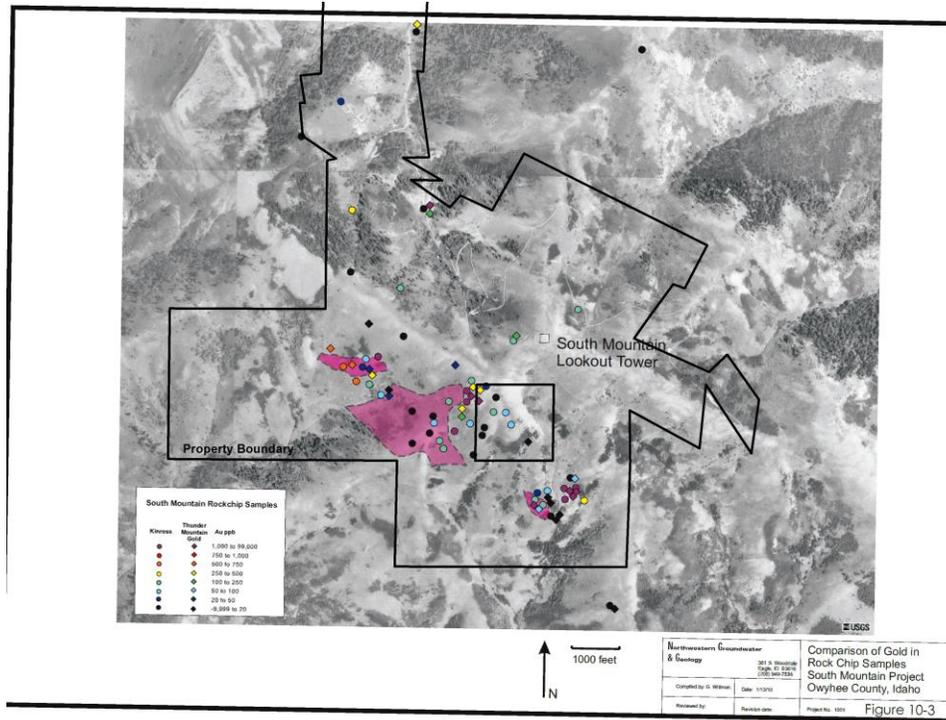
Figure 6-4 Comparison between THMG and Kinross of Gold in Rock Chip Samples (Wittman, 2010)
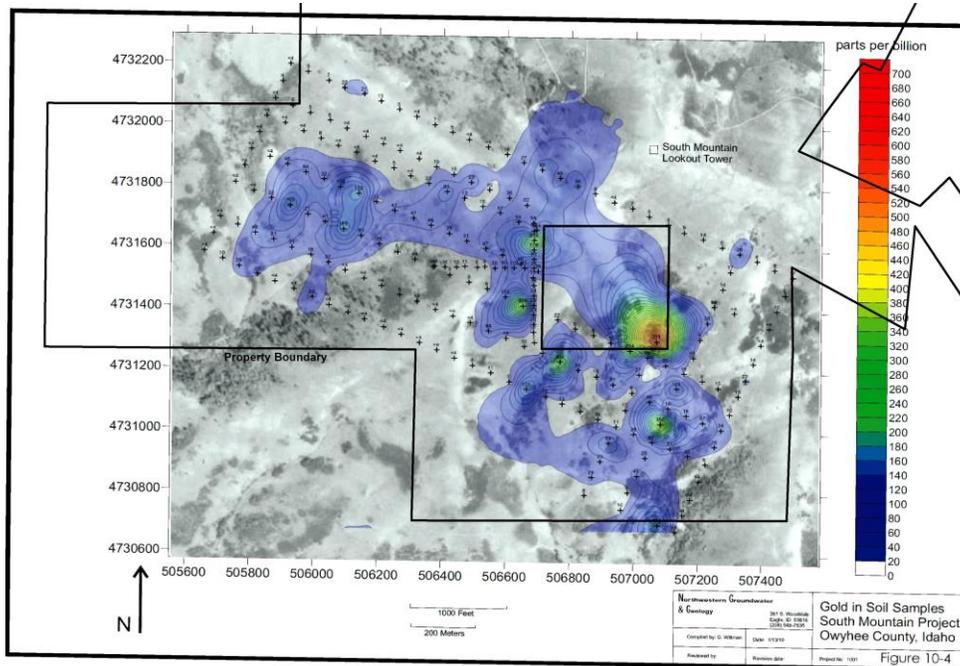
Figure 6-5 Gold Soil Sample Results (Wittman, 2010)
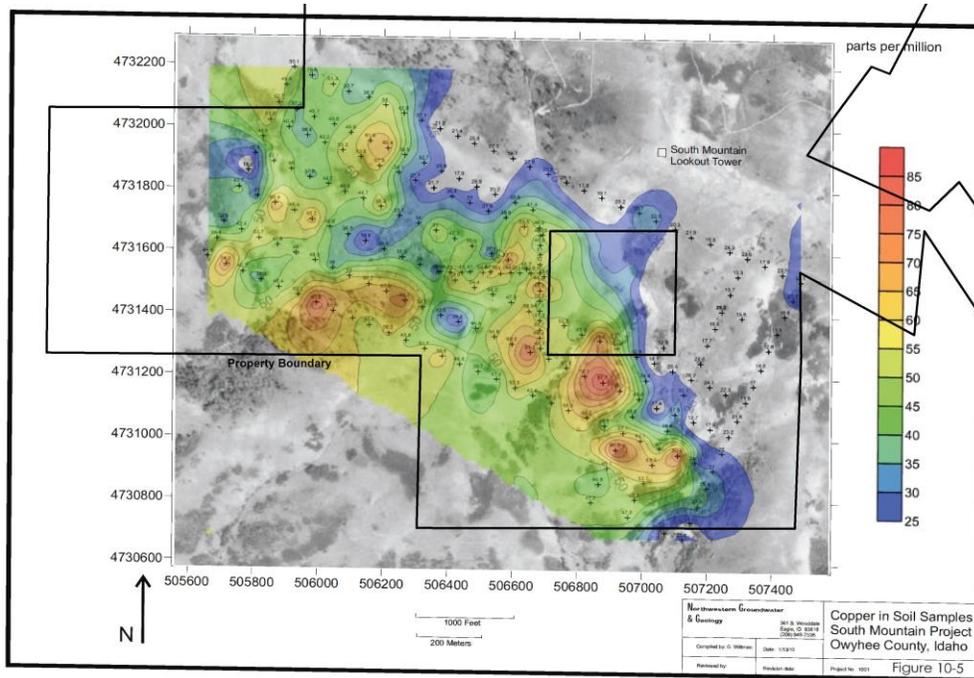
Figure 6-6 Copper Soil Sample Results (Wittman, 2010)
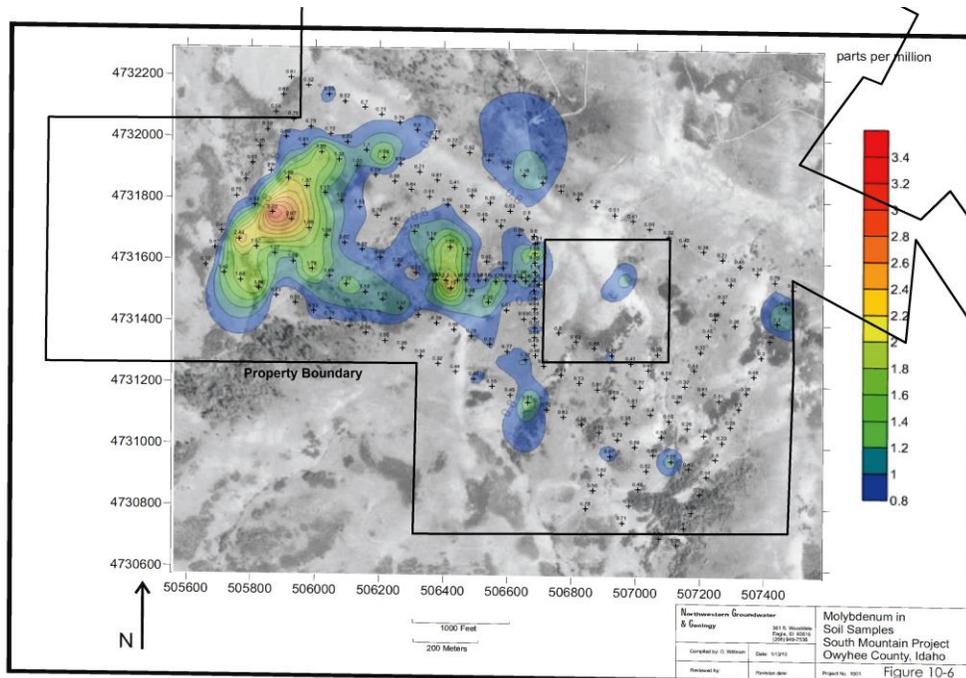
Figure 6-7 Molybdenum Soil Sample Results (Wittman, 2010)

Geophysics

In 2010, J.L. Wright Geophysics compiled several geophysical datasets:

- Airborne magnetic data ("AMAG");

- Airborne radiometric data ("ARAD"); and

- The gravity data ("GRAV").

The AMAG data originate from the USGS nation-wide magnetic grid and were re-gridded at 500m from the original one-kilometer grid spacing and low pass filtered with a nine-point Gaussian filter. The total field data were pole reduced with an USGS algorithm. ARAD data originate from the National Uranium Resource Evaluation ("NURE") data set acquired in the late 1970's with a line spacing of five kilometers. The data were gridded at 500m and low pass filtered with a nine-point Gaussian filter. Five (5) products are provided: equivalent potassium (K / %), uranium (U / ppm), thorium (TH / ppm) and two rations TH/K and U/K (Wright, 2010). GRAV data originate from the USGS nation-wide gravity grid and were re-gridded at 500m from the original one-kilometer grid spacing and low pass filtered with a nine-point Gaussian filter. The Bouguer gravity were further recursively filtered with a Gaussian filter to produce a regional, which subtracted from the original Bouguer grid yielded a residual (RES) gravity product (Wright, 2010).

The gravity data indicate the property to be located at an intersection of two large scale structural features. Density variations, responsible for the gravity anomalies, are inferred to be related to large scale basement rock changes. Two intrusions of differing composition / age also occur at the intersection, as well as the known mineralization. An arcuate shaped structure, termed the South Mountain Structural Zone (SMSZ), correlates directly with known mineralization on a district scale. The zone facets the Kqd intrusion and extends a considerable distance to the northwest and east-southeast beyond the property. The close spatial relationship between the SMSZ, intrusions and basement structures suggest some form of kinematic connection.

In July 2013, a ground magnetic survey was completed over a portion of the South Mountain property by MaGee Geophysical Services LLC. Objective was to delineate structures and lithologies proximal to known gold and base metal mineralization. A total of about 93.7 line kilometers of magnetic data were acquired on 100m and north-south lines and 200m east-west tie lines. Measurements of the total magnetic intensity were taken in the continuous mode at two-second intervals.

6.3   Historic Estimates

The mineral resource estimate described in the following paragraphs pre-dates current NI 43-101 reporting requirements and associated CIM definition standards. The historic estimate does not present mineral resources categorized according to Sections 1.2 and 1.3 of NI 43-101, and as such is considered relevant from a historical perspective only. The authors caution that a qualified person has not done sufficient work to validate the historical estimate, and BMET is not treating the historical estimate as current mineral resources or reserves. BMET does not intend to imply that the historic estimate validates or corroborates the mineral

resource estimate presented in Section 14 of this report. The mineral resource estimate presented in Section 14 of this report supersedes all previous mineral resource estimates reported for the South Mountain Project.

'Ore reserves' for the South Mountain Project are reported by Bowes (1985) an internal report prepared for W.A. Bowes, Inc. The following discussion is excerpted directly from that report, entititled "*The South Mountain Property, Owyhee County, Idaho*" and dated May 1985:

> *Ore reserves for the South Mountain mine were calculated by Tim Hall, geologist for the mine during development work from 1981 through 1982. A tonnage factor of 10 was used in calculations. This value was determined through use in previous mining operations on the property. The horizontal areas for ore zones were determined from calculations on irregular shaped block dimensions. In the case of drill indicated zones, the area of influence of the length of intercept was used in order to determine area.*

> *The tonnages represent zones projected below the Sonneman level 100 feet, above the Laxey level 100-200 feet, and between levels (a maximum of 286 feet). These ore zones could be projected safely below the Sonneman 300 feet, in that the Laxey ore zone has been stoped to this level. In the same manner, the ore zones exposed on the Laxey level could be extrapolated to the surface (600-800 feet above).*

> *A total of 469, 890 tons have been blocked out, with (weighted) average grades of 0.05 oz/T gold, 7.53 oz/T silver, 0.94% copper, 1.40% lead, and 9.77% zinc (Table 6-1).*

Table 6-3 South Mountain Reserve Estimate (Bowes, 1985)

```
        SOUTH MOUNTAIN RESERVES  4-19-85   TIM HALL GEOLOGIST
     PRICES   $/UNIT      Au        Ag        Cu       Pb       Zn
                         325.00     6.60      0.67     0.18     0.47
   SONN & BELOW
        ZONE    TONS       AU        AG        CU       PB       ZN    $/T ore

   TEXAS     △   7000     0.20      7.74      0.17     3.82    15.23   275.28
   TEXAS B        840     0.12      8.54      0.17     5.45    14.65   254.97
   SUBTEX A      2130     0.02     12.00      1.38     0.84     0.27   108.13
   SUBTEX B       550     0.17     45.04      0.68     9.67     6.29   455.56
   S-25          2850     0.01      4.60      1.85     0.00     1.10    67.78
   IMEA 3        2890     0.14      7.61      0.86     0.87    14.47   246.40
   Q 23          4710     0.05      4.16      0.79     0.45    26.81   306.95
   Q 23A         1160     0.02      1.81      0.55     0.15     5.77    80.59
   IMEA 2       31620     0.14      3.43      0.28     0.39    17.74   240.05
   DMEA 2A       7230     0.01      1.82      0.11     0.37     4.10    56.61
   DMEA 1        4930     0.01      6.13      2.47     0.45    10.23   174.59
   O 21A         2300     0.01      3.13      1.05     0.08    10.51   137.06
   O 21B         3310     0.01      3.13      1.05     0.08    10.51   137.06
   ANDERSON      1800     0.04     11.96      1.20     3.82    13.00   243.97

   WEIGHTED    73320      0.10      4.90      0.64     0.92    13.97   206.42
   ARITH.                 0.07      8.65      0.90     1.89    10.76   198.93

   SONN-LAXEY

        ZONE    TONS       AU        AG        CU       PB       ZN
   TEX {S+}     10150     0.20      7.74      0.17     3.82    15.23   275.28
   TEX {L-}     24896     0.04      8.95      1.23     0.83    10.17   185.84
   TEX A    △    1218     0.12      8.54      0.17     5.45    14.65   254.97
   SUBTEX A △    3088     0.02     12.00      1.38     0.84     0.27   108.13
   SUBTEX B △     797     0.17     45.04      0.68     9.67     6.29   455.56
   DMEA 5   △    8151     0.01      4.60      1.85     0.00     1.10    67.78
   DMEA 3        8265     0.14      7.61      0.86     0.87    14.47   246.40
   Q 23         13470     0.07      4.16      0.79     0.45    26.81   314.43
   Q 23A         3320     0.02      1.81      0.55     0.15     5.77    80.59
   DMEA 2**     45955     0.14      3.46      0.33     0.38    17.86   240.92
   DMEA 2A      10193     0.01      1.82      0.11     0.37     4.10    56.61
   DMEA 1       14013     0.01      6.13      2.47     0.45    10.23   174.59
   O 21A         2300     0.01      3.13      1.05     0.08    10.51   137.06
   O 21B         3310     0.01      3.13      1.05     0.08    10.51   137.06
   ANDERSON      3348     0.04     11.96      1.20     3.82    13.00   243.97

   WEIGHTED    152474     0.08      5.70      0.87     0.86    13.44   204.63
   ARITH.                 0.07      8.67      0.93     1.82    10.73   198.61

   LAXEY & BELOW (not to Sonneman)

   TEXAS
        a    △   6390     0.02      2.72      0.38     0.00     6.95    93.57
        b        9250     0.01      0.57      0.18     0.00     3.06    39.49
        c        4110     0.02      2.95      1.25     0.00     0.00    41.10
   DMEA 5       21155     0.01      3.98      1.30     0.10     2.76    73.89
   DMEA 4a       3741     0.01      3.59      2.03     0.50     5.26   105.39
   DMEA 4b       2682     0.02     10.95      2.14     0.96     9.59   201.05
   PLH 14        3600     0.01      0.80      0.28     0.00     3.47    44.90
   PLH 27        7366     0.02      3.70      0.57     0.06     3.70    71.93
   PLH 36        8265     0.03      3.34      0.15     0.21     4.25    72.89
   PLH 36a       2349     0.04      8.35      0.34     1.20     6.90   140.87
   PLH 32        7047     0.02      4.80      0.11     0.00     2.98    68.32
   PLH 34        1620     0.02      4.25      0.13     0.00    11.20   140.60

   WEIGHTED    77575      0.02      3.61      0.75     0.15     3.95    76.86
   ARITH.                 0.02      4.17      0.74     0.25     5.01    91.17

   LAXEY & ABOVE

        ZONE    TONS       AU        AG        CU       PB       ZN
   NW-SUB TX    14062     0.09      6.59      1.59     0.36     1.75   111.80
   TEX HW       14175     0.02     12.00      1.00     1.50    15.00   245.50
   TEX Zn        5434     0.02      6.58      0.95     0.21    17.76   230.36
   A   △         6390     0.02      2.72      0.38     0.00     6.95    93.57
   B   △         9250     0.01      0.57      0.18     0.00     3.06    39.49
   C   △         4110     0.02      2.95      1.25     0.00     0.00    41.10
   DMEA 5  △    29180     0.01      3.98      1.30     0.10     2.76    73.89
   DMEA 4A △     5160     0.01      3.59      2.03     0.50     5.26   105.39
   DMEA 4B       3700     0.02     10.95      2.14     0.96     9.59   201.05
   DMEA 3        7360     0.02      6.05      2.60     0.20    11.90   193.85
   PLH 14        3600     0.01      0.80      0.28     0.00     3.49    45.09
   DMEA 2        1700     0.02      4.57      1.93     0.20    21.90   269.10
   DMEA 1        7000     0.01      5.47      1.64     1.22    10.13   160.94
   ANDERSON     14960     0.04     11.96      1.20     3.30    13.00   242.10
   PLH 27       10160     0.02      3.70      0.57     0.06     3.70    71.93
   PLH 36       11400     0.03      3.34      0.15     0.21     4.25    72.89
   PLH 36A       3240     0.04      8.35      0.34     1.20     6.90   140.87
   PLH 32        9720     0.01      2.01      0.07     0.00     2.98    46.44
   PLH 32A       4300     0.02      4.80      0.11     0.00     4.76    85.05
   PLH 34        1620     0.02      4.25      0.13     0.00    11.20   140.60

   WEIGHTED    166521     0.02      5.59      1.02     0.62     6.78   124.53
   ARITH.                 0.02      5.26      0.99     0.50     7.82   130.55
   ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
   WT SM RES   469890     0.05      5.19      0.87     0.67     9.59   154.56
   ARTH SM R              0.05      7.53      0.94     1.40     9.77   176.03
   ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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              TABLE   4
  ORE  RESERVES- SOUTH  MTN.  MINE- APRIL 19, 1985 METAL PRICES
         CLASSIFICATION SYMBOLS:
     △  POSSIBLE       □  PROBABLE        O  PROVEN
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HRC is not aware of any other historic mineral resource estimates for the South Mountain Project with sufficient supporting information or documentation to warrant inclusion in this report.

6.4   Historic Production

Mineable quantities of precious and base metals, predominantly silver, zinc, lead, copper and gold, were discovered in the South Mountain mining district in the late 1800's. During the early years, high grade silver was mined from the oxidized portion of lead-silver replacement veins in the marble, though there are no production records for this early period, but a small smelter operated at the site.

Since the early 1900's, and primarily during World War II, approximately 8,000 feet of underground workings have been completed, the majority of which occur on two primary levels, the Sonneman Level (5,000 feet long at 6,850 feet above mean sea level (amsl), and the Laxey Level (2,000 feet long at 7,145 feet amsl). Available smelter records for the War period indicate that 53,635 tons of raw ore were direct shipped to a smelter in Tooele, Utah containing approximately 15.59 million pounds zinc, 2.56 million pounds lead, 1.49 million pounds copper, 566,440 ounces of silver and 3,118 ounces of gold.

Mining activity on the property continued during the early 1950s, and sporadically through 1968. A single-stage flotation mill was financed by the DMEA and constructed onsite in 1951, reportedly processing 6,700 tons of ore grade material. No records indicating grades and specific quantities of metal are available for the onsite mill. However, available smelter records for offsite concentrate shipments during this period indicate approximately 1,800 tons were sold containing approximately 144,426 pounds zinc, 194,550 pounds lead, 118,500 pounds copper, 33,850 ounces of silver and 41 ounces of gold. Although the available mill records show 6,700 tons were processed, the tailings from the flotation mill are estimated at approximately 17,000 tons. This would indicate that production from the mill was likely two to three times greater than recorded.

Available smelter records indicate that approximately 53,642 tons of ore have been mined to date. Historical smelter records indicate zinc values averaging 14.5%, lead 2.4%, copper 1.4%, silver at 10.6 opt, and gold at 0.058 opt (Table 6-4).

Table 6-4 Historic Production Summary Based on Available Smelter Receipts

Mine Area	Tons	Metal	Grade	Total Metal	Unit Value	Value 8.13 Prices
Laxey Ore Shoot	51,000	Gold	0.06	3,060	$ 1,300.00	$ 3,978,000.00
		Silver	10	510,000	$ 16.50	$ 8,415,000.00
		Copper	0.7%	714,000	$ 3.00	$ 2,142,000.00
		Lead	2.3%	2,346,000	$ 1.10	$ 2,580,600.00
		Zinc	15.0%	15,300,000	$ 1.40	$ 21,420,000.00
Texas Ore Shoot						
Hardwick Sub Lease 1941	857	Gold	0.02	17	$ 1,300.00	$ 22,282.00
		Silver	26.36	22,591	$ 16.50	$ 372,743.58
		Copper	4.9%	83,129	$ 3.00	$ 249,387.00
		Lead	1.3%	21,768	$ 1.10	$ 23,944.58
		Zinc	9.4%	160,773	$ 1.40	$ 225,082.48
Anderson / Texas Shaft 1950	462	Gold	0.01	5	$ 1,300.00	$ 6,006.00
		Silver	25.16	11,624	$ 16.50	$ 191,794.68
		Copper	5.2%	48,418	$ 3.00	$ 145,252.80
		Lead	N/A		$ 1.00	$ -
		Zinc	N/A		$ 1.40	$ -
Purdy sub-lease/Texas shaft 1953-54	522	Gold	0.039	20	$ 1,300.00	$ 26,465.40
		Silver	23.78	12,413	$ 16.50	$ 204,817.14
		Copper	3.1%	32,782	$ 3.00	$ 98,344.80
		Lead	4.3%	44,892	$ 1.10	$ 49,381.20
		Zinc	N/A		$ 1.10	$ -
Texas, Laxey hanging wall zone 1953	357	Gold	0.021	7	$ 1,300.00	$ 9,746.10
		Silver	18.86	6,733	$ 16.50	$ 111,094.83
		Copper	2.9%	20,492	$ 3.00	$ 61,475.40
		Lead	1.7%	12,138	$ 1.10	$ 13,351.80
		Zinc	N/A		$ 1.40	$ -
Ore shoot crosscut, Laxey Level 1951	120	Gold	0.04	5	$ 1,300.00	$ 6,240.00
		Silver	11.96	1,435	$ 16.50	$ 23,680.80
		Copper	1.2%	2,880	$ 3.00	$ 8,640.00
		Lead	3.3%	7,920	$ 1.10	$ 8,712.00
		Zinc	13.0%	31,200	$ 1.40	$ 43,680.00
250-360 Ore Shoots, Laxey 1952	324	Gold	0.01	3	$ 1,300.00	$ 4,212.00
		Silver	5.07	1,643	$ 16.50	$ 27,104.22
		Copper	2.2%	13,932	$ 3.00	$ 41,796.00
		Lead	20.0%	129,600	$ 1.10	$ 142,560.00
		Zinc	15.6%	101,088	$ 1.40	$ 141,523.20
Totals						
Total tons	53,642					
Gold	0.058			3,118		
Silver	10.6			566,439		
Copper	1.4%			1,485,188		
Lead	2.4%			2,562,318		
Zinc	14.5%			15,593,061		
					Total	$ 40,794,918.01
					Value per Ton / Current Metal Prices	$ 760.50

* Summary by Bowes based on smelter settlement sheets.

7.   GEOLOGICAL SETTING AND MINERALIZATION

A portion of the text presented in this section is modified and/or excerpted directly from the M.S. thesis papers prepared by Freeman (1982) and Beaver (1986) and an internal report on the Project by Bowes (1985). The author has reviewed this information and available supporting documentation in detail, and finds the descriptions and interpretations presented herein to be reasonable and suitable for use in this report.

7.1   Regional Geology

The South Mountain mining district is situated within a roof pendant of marble, quartzite, and schist, in an igneous complex which has been the site of intrusive and extrusive activity since Cretaceous time. These igneous rocks, and those of the nearby Owyhee Mountains, are separated from similar rocks of the Idaho batholith by the volcanic rocks of the Snake River Plain. Uplift of South Mountain and subsequent erosion has resulted in a broad range, elongated to the northwest, cored by the pre-Cretaceous metasediments and Cretaceous to Tertiary plutonic rocks. Bimodal (basaltic and rhyolitic) volcanic rocks of two distinct ages, Eocene-Oligocene and Miocene-Pliocene, are the dominant rock types exposed in the region.

Metasedimentary rocks, which are host to the skarn and replacement vein mineral deposits, are common in and on the margin of the Idaho batholith (Lund & Snee, 1985) and occur as pendants or inclusions in the Owyhee region (Pansze, 1975). The age of the metasediments at South Mountain is not presently well defined. Sorenson (1927) suggests that the metasedimentary units are Paleozoic in age, while Beaver (1986) presents a compelling argument that they are part of an allocthanous terrane accreted during the Mesozoic.

The igneous rocks of South Mountain and the Owyhee Mountains generally range in composition from granodiorite to quartz monzonite (Pansze, 1975; Bennett, 1976). However, at South Mountain compositions are more variable, ranging from quartz diorite to granitic pegmatite (Freeman, 1982). K-Ar age dates for the igneous rocks are 87±3 my for the quartz diorite of South Mountain (Armstrong, 1975), 62.1±1.2 my for the granodiorite of the Owyhee Mountains (Pansze, 1975), and 45.2±1.3 my for granodiorite from South Mountain (Armstrong, 1976). Taubeneck (1971) and Ekren et al. (1982) concur that plutonic rocks of the Owyhee Mountains and South Mountain are related to the Idaho batholith, which is also a multiple intrusive complex in which emplacement spans the Jurassic to Eocene, with the majority of the formation during the Cretaceous.

Tertiary flows and tuffs are prevalent in the South Mountain area as well as throughout southern Idaho and northern Oregon and Nevada. The oldest exposed volcanic rocks are Eocene silicic flows and tuffs, totaling 500 to 1000 m in thickness, that are probably related to Challis volcanism (Ekren et al., 1982). The Oligocene Upper Salmon Creek andesite and basalt flows (up to 1160 m thick), found northeast of the study area, are chemically distinct from overlying Miocene volcanics (Ekren et al., 1982).

Extensive sheets of Miocene-Pliocene volcanic rocks unconformably overlie the Oligocene flows and Cretaceous granodiorites (Ekren et al., 1982). This assemblage consists of 1600 m of Miocene basalt, latite, and quartz latite, and 600 to 1000 m of rhyolite tuffs ranging in age from 16 to 10 my (Ekren and others, 1982). The oldest basalt of this sequence surrounds South Mountain. Major eruptive centers for the Miocene rhyolite have been identified in the Juniper Mountain and Bruneau-Jarbridge areas (Ekren et al., 1982).

Smaller, local eruptive centers are common, with Delamar and its associated volcanic-hosted epithermal gold deposits (located 30 km north of South Mountain) as an example (Pansze, 1975). Overlying the rhyolite is 300 m of olivine basalt and interbedded sedimentary rocks correlated with the Banbury Basalts of the Snake River Plain by Ekren and others (1982).
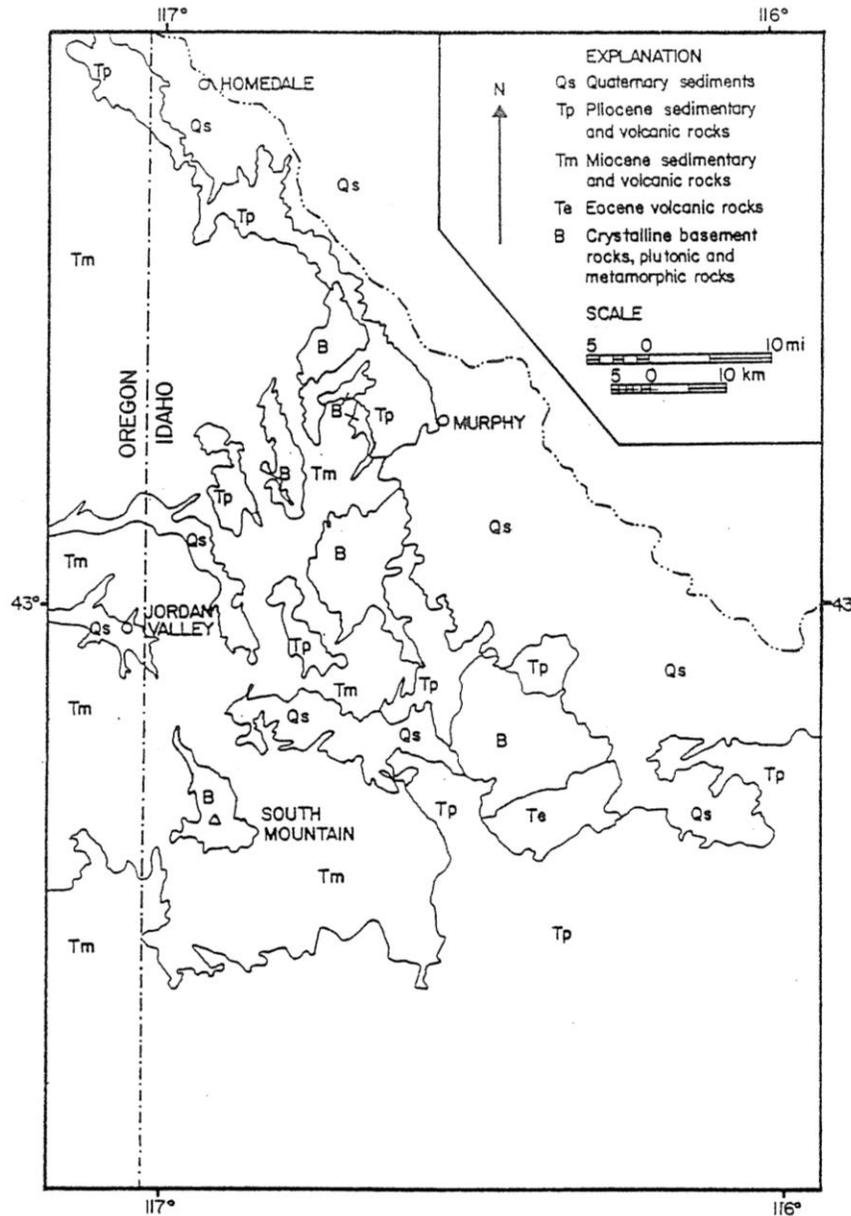
Figure 7-1 Regional Geologic Setting of the South Mountain Project (Freeman, 1982)

7.2 Local and Property Geology

7.2.1 Lithology

Rock types within the Project 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 7-2). 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 et. al, 1981, Freeman, 1982). The accumulated basalt flows range up to 1,640 feet thick.
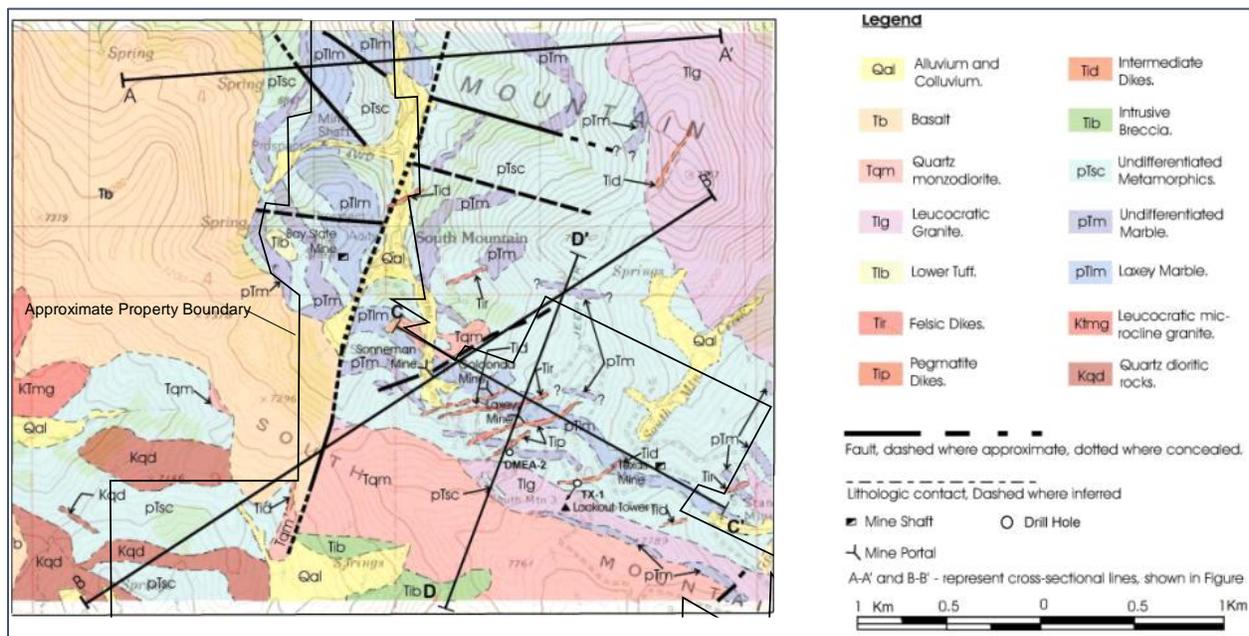
Figure 7-2 Geologic Map of the South Mountain Project Area

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 et. al, 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 hornblendite 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 et. al, 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 et. al, 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.

7.2.2   Structure

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. The generalized geologic and structural setting of the Project is presented in cross section in Figure 7-3.
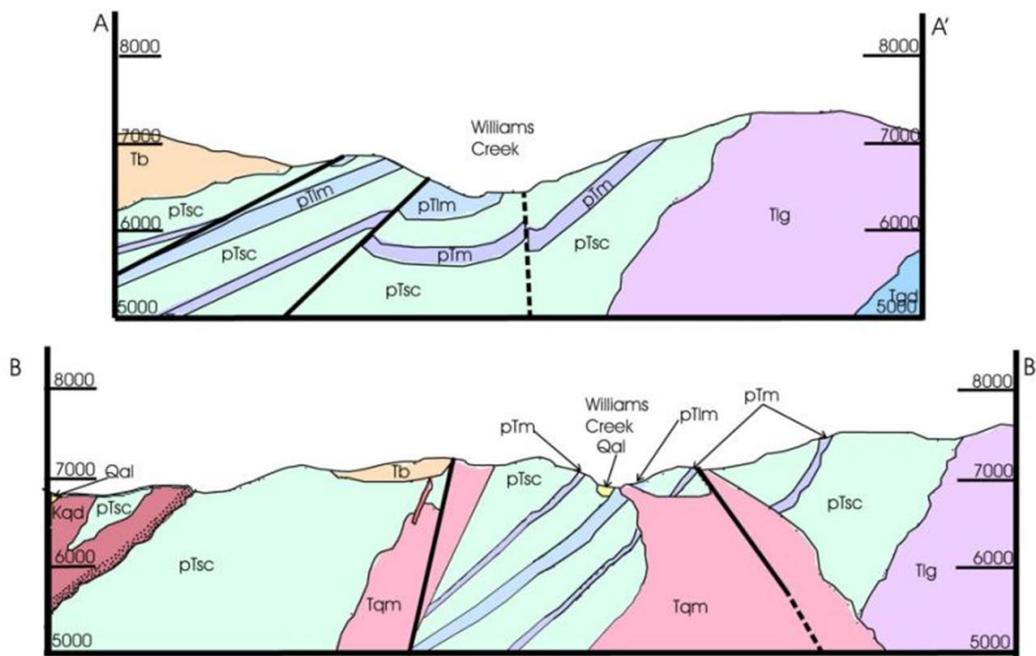
Figure 7-3 Schematic Cross Sections of the South Mountain Project Area (section lines on Figure 7-2)

7.3   Mineralization

Two discrete styles of mineralization have been worked by mines on the South Mountain Project: Pb-Ag replacement vein or fissure vein deposits, and skarn-hosted, Zn-rich, polymetallic massive sulfide bodies.

The Pb-Ag veins were the first target of mining activity within the Project area. These veins proved to be amenable to early-day mining practices as the oxidized portions consisting of argentiferous lead carbonate were easily smelted. The oxidized portions of the veins are relatively shallow, on the order of 70 to 80 ft (Bowes, 1985). The unoxidized components of these veins include the sulfides pyrrhotite, arsenopyrite, sphalerite, galena, chalcopyrite, and pyrite. The sulfide minerals occur within quartz, calcite, and chlorite gangue.

The Pb-Ag veins range in width from narrow stringers to 8 feet wide, and follow a predominate northeast trend with steep, southwesterly to vertical dips. The veins are open-space fillings along previous existing structures, and evidence can also be seen of localized replacement along adjacent bedding planes and fracture surfaces. Historically, the veins have contained silver values that are much higher than in the polymetallic skarn sulfides, largely due to the greater percentage of argentiferous galena in the vein deposits, which may be more distal representatives of the same mineralization occurring within massive sulfide bodies.

Historic production at South Mountain has largely come from the skarn hosted massive sulfide bodies, which comprise the primary mineral resource of the Project. These occurrences are localized almost entirely to the Laxey marble, and specifically, the parts of the marble which have been altered to hedenbergite-rich, Pb/Zn skarn.

Table 7-1 lists the mineral assemblages of the skarn occurrences at South Mountain. Hendenbergite (CaFe Si_2O_6) occurs as the primary constituent of the skarn bodies. It is associated with ilvaite, quartz and calcite, and locally with andraditic garnet. The sulfide assemblages occurring within the skarn bodies consist of pyrrhotite, sphalerite, chalcopyrite, arsenopyrite, galena and minor pyrite. The sulfides pyrrhotite, and marmatite (Fe rich sphalerite) appear ubiquitous throughout the ore zones, with concentrations of galena, arsenopyrite and pyrite occurring in various percentages within the different ore zones.

Table 7-1 South Mountain Skarn Mineral Assemblages (Freeman, 1982)

PARAGENESIS ASSEMBLAGE		PROGRADE TACTITE FORMATION	SULFIDE REPLACEMENT	RETROGRADE TACTITE	HYDROTHERMAL VEIN	HYDROTHERMAL ALTERATION
UNMINERALIZED TACTITE	Hedenbergite, Andradite, Ilvaite, Quartz, Calcite, Pyrrhotite, Pyrite, Magnetite	?		?		
MINERALIZED TACTITE	Pyrrhotite, Sphalerite, Chalcopyrite, Galena, Montmorillinite, Epidote, Actinolite		?			
ARGENTIFEROUS GALENA VEINS	Pyrrhotite, Arsenopyrite, Sphalerite, Chalcopyrite, Galena, Tetrahedrite, Pyrite, Quartz, Calcite				?	
ALTERED TACTITE	Actinolite, Pyrite, Calcite, Talc, Magnetite, Hematite, Clays					?
TEXTURES	Coarse Replacement, Open Space Filling, Fine Grained Replacement, Faulting/Mylonitization					

The mineralized zones in the skarn occur as pipe-like bodies which plunge 40-50 degrees southwest, and rake approximately 50 degrees within the marble bed. Figure 7-4 illustrates the structure of the mineralized shoots in cross-section. Kildale (1944) describes individual mineralized shoots within the Laxey ore body as characteristically "bunchy" and "erratic", with dimensions in plan view from 10 by 20 ft to 20 by 50 ft, localized within the skarn alteration. Earlier reports describe the mineralized occurrences within the Laxey zone as controlled by northeast trending structures. Reynolds (1953) noted some structural control but did not delineate trends. All writers of previous reports on the Project agree that other ore zones within the skarn probably imitate the structure and style of the Laxey ore zone, and also are as persistent with depth.
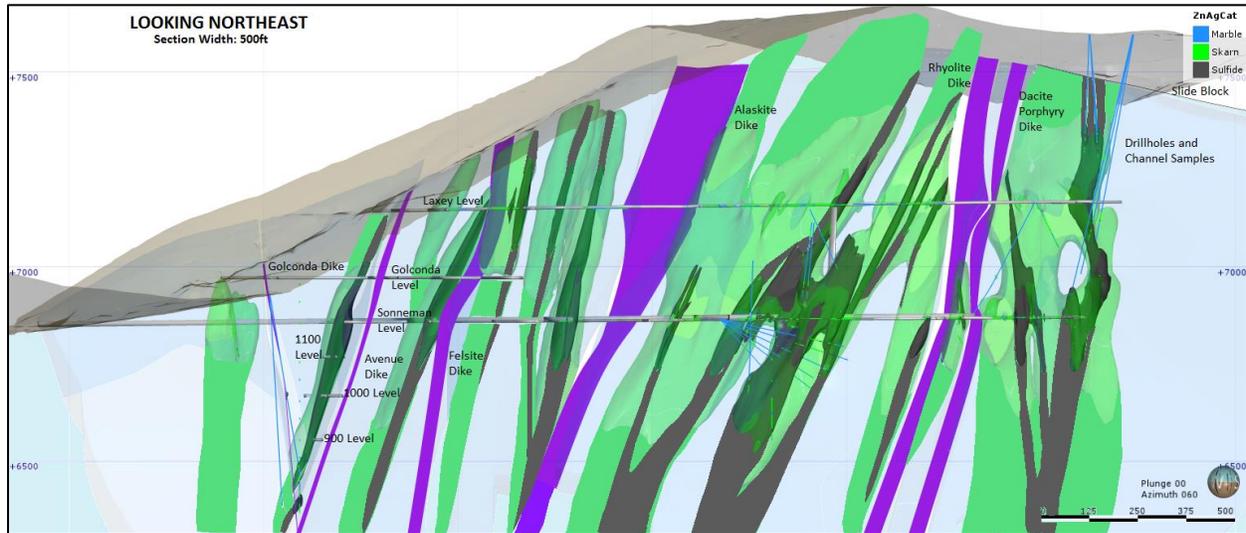
Figure 7-4 Schematic Long Section of South Mountain Skarn Deposits

Mineralization at South Mountain is thought to be the result of three distinct periods of metamorphism. 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 and included widespread volcanism, plutonism and associated metamorphism (Freeman, 1982). Recent exploration by THMG has identified altered intrusive breccias with anomalous gold and copper values, suggesting a potential third type of mineralization worthy of future exploration.

8.   DEPOSIT TYPES

The primary deposit being explored at South Mountain is the skarn-hosted massive sulfide within the Laxey marble, and specifically, the parts of the marble which have been altered to hedenbergite-rich, Pb/Zn skarn.

Skarns are coarse-grained metamorphic rocks composed of calcium-iron-magnesium-manganese-aluminum silicate minerals that form by replacement of carbonate-bearing rocks (in most cases) during contact or regional metamorphism and metasomatism. Skarn deposits are relatively high-temperature mineral deposits related to magmatic hydrothermal activity associated with granitoid plutons in orogenic tectonic settings; skarns generally form where a granitoid pluton has intruded sedimentary strata that include limestone or other carbonate-rich rocks. The processes that lead to formation of all types of skarn deposits include: (1) isochemical contact metamorphism during pluton emplacement, (2) prograde metasomatic skarn formation as the pluton cools and an ore fluid develops, and (3) retrograde alteration of earlier-formed mineral assemblages. Deposition of ore minerals accompanies stages 2 and 3.

Skarn deposits are typically zoned mineralogically with respect to pluton contacts, original lithology of host rocks, and (or) fluid pathways. Later petrogenetic stages may partly or completely obliterate earlier stages of skarn development. Skarn deposits commonly are also associated with many other types of magmatic-hydrothermal deposits in mineral districts. In fact, distinction between skarn and other deposit types is not always apparent, and in many districts, skarns form an intermediate "zone" between porphyry deposits in the center of mining districts and peripheral zones of polymetallic vein and replacement and distal disseminated deposits.

Each class of skarn deposit has a characteristic, though not necessarily unique, size, grade, tectonic setting, granitoid association, and mineralogy (Einaudi and Burt, 1982; Einaudi and others, 1981; Meinert, 1984). Not surprisingly, therefore, the various classes of skarn deposits have different geochemical signatures and oxidation/sulfidation states. Most economic skarns present as exoskarn, which forms in carbonate rock that hosts a mineralizing intrusion. These deposits consist of base- and precious-metal minerals in calcsilicate rocks. Pb/Zn skarns are composed of sphalerite and galena in calc-silicate rocks that may represent contact metasomatism by nearby granitoid intrusions or they may form hundreds of meters from intrusions inferred to be sources of metasomatizing fluids.

Skarn deposits in the western conterminous United States typically are present in mountainous areas, but can be present in a variety of settings; some are buried in fault blocks under Tertiary or Quaternary basin fill. Skarns also may be present in roof pendants in plutons, as well as at contacts with plutons. These types of skarns are in continental margin, syn- to late-orogenic tectonic settings such as those exposed in British Columbia, Peru, Japan, and the western Cordillera of the United States and Mexico.

Most Pb/Zn skarns occur in continental settings associated with either subduction or rifting. Related igneous rocks span a wide range of compositions from diorite through high-silica granite. They also span diverse geological environments from deep-seated batholiths to shallow dike-sill complexes to surface volcanic extrusions. Besides their Zn-Pb-Ag metal content, Pb/Zn skarns can be distinguished from other skarn types by their distinctive manganese- and iron-rich mineralogy, by their occurrence along structural and lithologic

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contacts, and by the absence of significant metamorphic aureoles centered on the skarn. Almost all skarn minerals in these deposits can be enriched in manganese including garnet, pyroxene, olivine, pyroxenoid, amphibole, chlorite, and serpentine. For a number of Pb/Zn skarns, the associated igneous body has not been found or recognized, perhaps because it is too far away from the skarn itself.

As aptly described by Beaver (1985) and others, Pb/Zn skarn and Pb-Ag veins in the South Mountain mining district are hosted by the Laxey marble, which is part of a roof pendant of pre-Cretaceous age metasediments. The igneous complex surrounding the roof pendant is predominantly granodiorite (K-Ar dated at 45.2 to 51.9 my) and is probably an outlier of the Idaho batholith. The Sonneman stock portion of the complex is the likely source of mineralizing fluids. There is a strong structural control upon skarn and ore zones; ore zones are subparallel to Fl and F2 fold axes. This may be a result of increased permeability in tensional fold hinges. Known skarn mineralization is bounded and formed along two prominent N to NE trending faults.

The South Mountain skarn is zoned relative to the N to NE trending faults. In pyroxene, Mg decreases and Mn increases away from the fault zones. Locally, Cu, Pb, Zn and Ag in sulfide minerals are also zoned relative to faults. This metal zonation may be due to fluid flow and evolution away from "feeder-faults" and into the Laxey marble. The skarn consists predominantly of hedenbergitic pyroxene and minor late andraditic garnet. Retrograde alteration of skarn includes manganiferous ilvaite and sub- calcic amphibole. Fluid inclusion studies indicate that skarn formed from relatively hot, complex saline brines. Homogenization temperatures in pyroxene average 3540 C and, based upon a 0.9 kb pressure determined from sphalerite geobarometry, the temperature of pyroxene skarn formation was about 430° C. Both skarn mineral compositions and fluid inclusion homogenization temperatures indicate a possible minor vertical temperature gradient, assumed to result from fluid flow patterns.

Distal Pb-Ag veins and replacement bodies mined in the late 1800's may be the vertical and lateral equivalent to skarn. Thus, numerous surface exposures of Pb-Ag veins at South Mountain could indicate the potential for significant Zn-Pb-Ag mineralization at depth.

9.   EXPLORATION

No exploration has yet been carried out at the South Mountain Project by or on behalf of BEMET.

10. DRILLING

Drillhole exploration and blasting has been conducted intermittently on the Project from the 1960's through 2014 by various operators. Figures 10-1 and 10-2 show the collar locations on a large regional scale, and a property scale respectively. Appendix A summarizes drillhole collar coordinate locations and other relevant information.
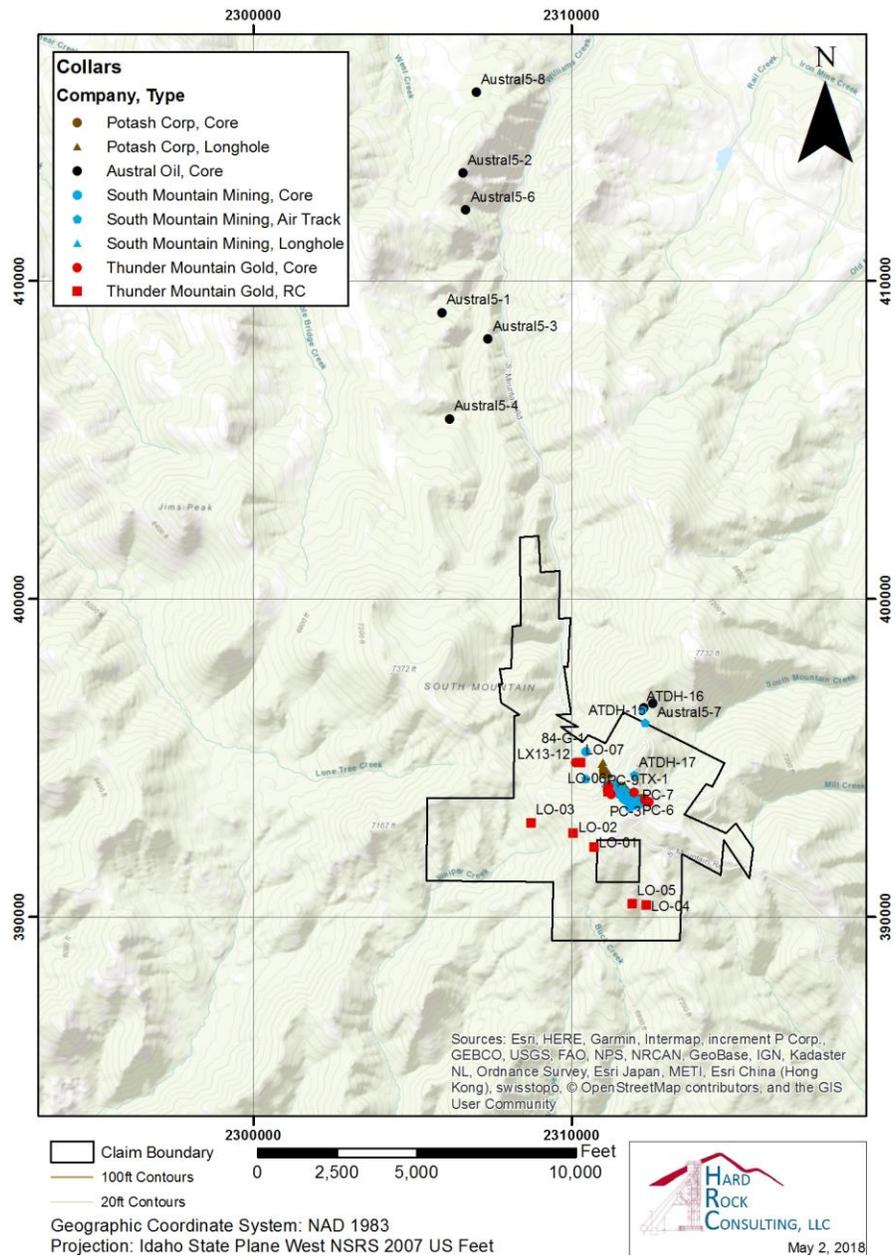
Figure 10-1 Drill Collar Locations, Regional
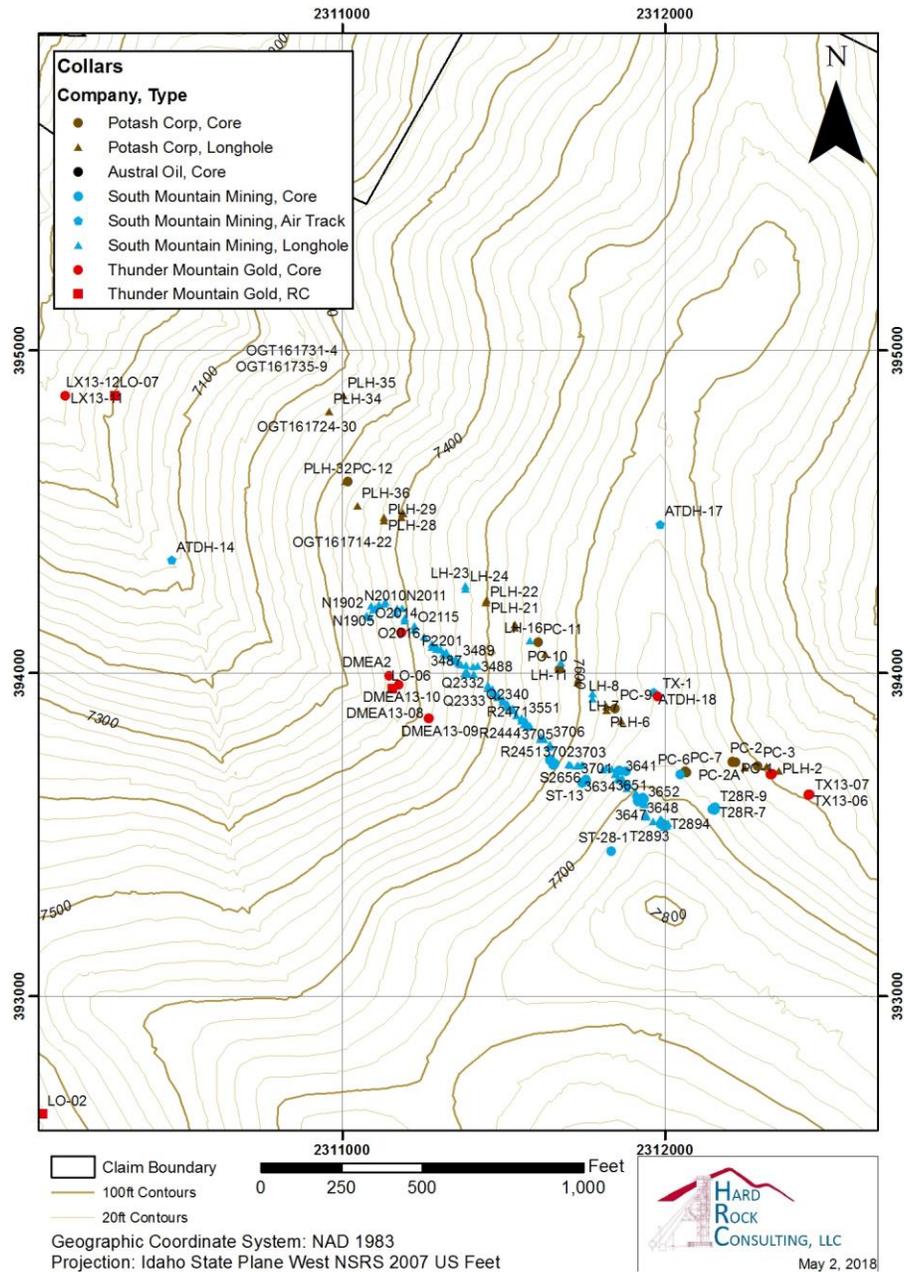
Figure 10-2 Drill Collar Locations, Local

10.1   Historic Drilling Exploration

Historic drilling carried out by previous operators of the South Mountain Project accounts for 203 of the total 230 drillholes included in the Project database. Prior to 2008, the property was drilled by three different companies. Historic drilling at the South Mountain Project is summarized in Table 10-1.

Table 10-1 Drilling by Previous Operators

Year(s)	Company	Drilling Contractor	Type	Count	Total Depth (ft)
1960's	Potash Corp	unknown	Core	10	1293
1960's	Potash Corp	unknown	Longhole	24	2078
1971	Austral Oil	Longyear	Core	8	7551
1975-1985	South Mountain Mining	South Mountain Mining	Longhole	90	3717
1975-1985	South Mountain Mining	South Mountain Mining	Longhole	6	428
1975-1985	South Mountain Mining	South Mountain Mining	Longhole	21	672
1975-1985	South Mountain Mining	South Mountain Mining	Core EX/AX	32	4222
1975-1985	South Mountain Mining	South Mountain Mining	Core BX	1	375
1975-1985	South Mountain Mining	South Mountain Mining	Air Track	5	486
1984	South Mountain Mining	South Mountain Mining	Core NC	1	328
1986	South Mountain Mining	South Mountain Mining	Core EX/AX	5	542
			Totals:	**203**	**21691**

In the 1960's, Potash Corporation drilled 10 core holes of unknown size totaling 1293 feet and 24 longholes totaling 2078 feet. All drilling was conducted across the length of the Laxey level in order to test the vertical continuity of mineralization. The drilling was oriented horizontally on either side of the drift across the thickness of the Laxey marble, and significant intercepts are considered generally representative of the true thickness of mineralization. Drilling was terminated when the hanging wall or footwall schist was encountered. Neither core nor longholes were surveyed down-the-hole. HRC knows of no other drilling, sampling, or recovery factors that might materially impact the accuracy of the drilling results. Table 10-2 summarizes significant intercepts from Potash Corporations drilling program.

Table 10-2 Significant Intercepts from Potash Corporation's Drilling Campaign

Hole ID	Type	From	To	Length	Ag (opt)	Zn %	Au (opt)	Cu %	Pb %
PC-1	Core	25.0	45.0	20.0	0.63	2.95	0.01	0.20	0.00
PC-12	Core	44.7	49.0	4.3	6.00	1.67	0.01	1.29	0.00
PC-2	Core	13.0	28.0	15.0	2.87	0.03	0.02	1.03	0.00
PC-2A	Core	110.0	160.0	50.0	2.33	0.72	0.01	0.40	0.00
PC-3	Core	4.0	14.0	10.0	1.80	8.45	0.02	0.40	0.00
PC-6	Core	24.0	34.0	10.0	4.40	0.00	0.01	0.14	0.00
PC-6	Core	92.0	134.0	42.0	1.64	0.00	0.01	0.37	0.00
PC-7	Core	119.6	147.0	27.4	1.46	2.52	0.01	0.18	0.00
PC-9	Core	0.0	24.6	24.6	3.01	0.22	0.01	0.78	0.00
PLH-1	Longhole	0.0	12.0	12.0	2.55	5.45	0.02	0.36	0.00
PLH-3	Longhole	12.0	36.0	24.0	0.65	2.33	0.02	0.15	0.00
PLH-4	Longhole	6.0	54.0	48.0	3.15	2.66	0.01	1.53	0.00
PLH-5	Longhole	0.0	12.0	12.0	2.05	2.40	0.01	0.86	0.00
PLH-14	Longhole	9.0	45.0	36.0	0.80	3.48	0.01	0.29	0.00
PLH-18	Longhole	0.0	9.0	9.0	3.20	0.00	0.00	0.03	0.00
PLH-27	Longhole	0.0	18.0	18.0	2.20	2.55	0.01	0.33	0.00
PLH-32	Longhole	9.0	90.0	81.0	1.60	2.48	0.01	0.05	0.00
PLH-34	Longhole	100.0	137.0	37.0	3.00	9.06	0.02	0.12	0.00
PLH-36	Longhole	36.0	72.0	36.0	4.76	4.08	0.02	0.23	0.72

In 1971, Austral Oil drilled 8 core holes of unknown size totaling 7551 feet north of the Project. The drillholes were oriented at various directions and inclinations and were not surveyed down-the-hole. The Austral hole intervals were logged for geology but were not assayed for metal content.

In the period from 1975 to 1986, SMM drilled a total of 161 holes. Of these holes, 117 were longholes (blastholes) totaling 4817 feet. Thirty-nine were core holes ranging in size from EX to HQ and totaling 5467 feet. Only one core hole, SML-1, was surveyed down-the-hole. The remaining 5 holes were shallow air track holes, which were not assayed, totaling 486 feet. Table 10-3 summarizes significant intercepts from the SMM drilling programs. Orientation of the drillholes relative to the mineralized zones is variable, and as such sample lengths do not necessarily reflect the true thickness of mineralization. HRC knows of no other drilling, sampling, or recovery factors that might materially impact the accuracy of the drilling results.

Table 10-3 Significant Intercepts from South Mountain Mining's Drilling Campaigns

Hole ID	Type	From	To	Length	Ag (opt)	Zn %	Au (opt)	Cu %	Pb %
84-G-1	Core	215.7	219.1	3.4	3.67	1.18	0.06	0.05	0.65
84-G-1	Core	246.0	254.0	8.0	1.04	3.38	0.04	0.03	0.17
S-25-1	Core	266.3	275.9	9.6	3.11	3.41	0.06	0.44	0.26
S-25-1	Core	293.4	303.5	10.1	5.44	6.74	0.02	2.67	0.01
S-25-5	Core	51.8	78.9	27.1	2.78	1.40	0.00	3.01	0.05
S-25-6	Core	59.7	63.6	3.9	4.04	0.40	0.00	2.29	0.00
S-25-7	Core	46.4	60.0	13.6	1.84	1.42	0.00	1.50	0.00
S-27-1	Core	50.0	52.6	2.6	4.35	0.35	0.01	1.70	0.02
S-27-2	Core	94.1	98.1	4.0	4.08	0.00	0.00	0.00	0.00
SML-1	Core	239.0	245.0	6.0	4.40	1.20	0.00	2.00	0.00
ST-1	Core	21.0	27.0	6.0	3.13	0.21	0.02	0.14	0.18
ST-2	Core	12.2	25.3	13.1	14.85	0.03	0.02	1.11	1.01
ST-9	Core	7.8	10.0	2.2	51.45	0.43	0.03	0.11	1.10
T28R-7	Core	27.1	35.2	8.1	3.56	2.90	0.15	0.20	0.56
T28R-7	Core	38.5	52.5	14.0	14.49	18.94	0.27	0.22	9.64
T28R-9	Core	27.5	38.6	11.1	2.67	2.62	0.39	0.03	0.98
T29-86-1	Core	4.0	10.6	6.6	14.38	12.90	0.14	0.28	6.36
T29-86-2	Core	4.4	12.6	8.2	5.86	4.62	0.16	0.15	2.36
T29-86-3	Core	4.4	15.6	11.2	10.09	13.79	0.15	0.28	4.34
T29-86-4	Core	4.0	20.3	16.3	2.04	8.83	0.16	0.09	1.30
T29-86-5	Core	4.0	14.7	10.7	9.92	14.63	0.16	0.23	5.21
T29-86-5	Core	65.3	72.3	7.0	10.75	2.88	0.10	0.89	1.64
3487	Longhole	0.0	16.0	16.0	3.05	10.85	0.00	0.23	0.50
3489	Longhole	0.0	24.0	24.0	4.99	26.98	0.00	0.18	0.43
3634	Longhole	0.0	20.0	20.0	3.24	0.02	0.00	0.29	0.06
3635	Longhole	4.0	16.0	12.0	2.51	1.99	0.00	1.45	0.00
3636	Longhole	0.0	30.0	30.0	2.11	0.02	0.00	0.26	0.07
3637	Longhole	0.0	8.0	8.0	9.83	0.07	0.00	4.01	0.06
3637	Longhole	20.0	40.0	20.0	8.54	0.15	0.00	1.16	0.16
3640	Longhole	0.0	12.0	12.0	17.03	0.15	0.00	7.33	0.12
3641	Longhole	0.0	12.0	12.0	3.06	0.23	0.00	1.82	0.00
3643	Longhole	0.0	24.0	24.0	5.61	0.00	0.00	0.00	0.00
3651	Longhole	16.0	40.0	24.0	2.91	0.17	0.00	0.45	0.07
3652	Longhole	20.0	44.0	24.0	2.32	0.40	0.00	0.73	0.20
LH-8	Longhole	0.0	27.0	27.0	2.24	2.80	0.01	0.91	0.00
N1902	Longhole	8.0	20.0	12.0	5.01	3.82	0.03	0.97	0.22
N1904	Longhole	0.0	8.0	8.0	2.16	2.18	0.00	0.52	0.27
N1905	Longhole	0.0	40.0	40.0	3.13	2.55	0.01	0.59	0.58
N1906	Longhole	0.0	24.0	24.0	1.94	2.17	0.01	0.54	0.05
N1908	Longhole	8.0	20.0	12.0	1.45	1.91	0.00	0.32	0.00
O2119	Longhole	0.0	20.0	20.0	2.87	8.33	0.00	0.96	0.11
O2120	Longhole	4.0	12.0	8.0	5.80	1.51	0.00	0.43	0.00
O2121	Longhole	44.0	60.0	16.0	3.62	10.70	0.00	1.15	0.06

Hard Rock Consulting, LLC

Hole ID	Type	From	To	Length	Ag (opt)	Zn %	Au (opt)	Cu %	Pb %
P2123	Longhole	8.0	32.0	24.0	1.73	16.35	0.20	0.21	0.35
P2201	Longhole	8.0	20.0	12.0	3.35	25.25	0.06	0.28	0.56
P2203	Longhole	0.0	44.0	44.0	4.33	11.63	0.09	0.28	0.43
P2204	Longhole	0.0	24.0	24.0	3.69	16.48	0.05	0.38	0.43
P2224	Longhole	0.0	52.0	52.0	2.05	13.40	0.07	0.12	0.51
P2225R	Longhole	0.0	8.0	8.0	3.10	15.85	0.09	0.16	0.17
P2226	Longhole	0.0	16.0	16.0	3.90	22.43	0.11	0.36	0.35
P2227	Longhole	0.0	60.0	60.0	4.90	12.94	0.08	0.36	0.30
Q2307	Longhole	4.0	40.0	36.0	3.16	34.92	0.08	0.24	0.54
Q2333	Longhole	28.0	40.0	12.0	1.57	5.62	0.02	0.07	0.15
Q2335A	Longhole	40.0	52.0	12.0	1.64	4.96	0.00	1.01	0.00
Q2335R	Longhole	4.0	16.0	12.0	2.12	2.26	0.04	0.47	0.12
S2655	Longhole	0.0	28.0	28.0	3.89	0.40	0.00	1.05	0.00
S2656D	Longhole	4.0	12.0	8.0	3.21	1.24	0.01	1.22	0.00
S2757	Longhole	0.0	36.0	36.0	2.08	0.02	0.00	0.59	0.00
S2757A	Longhole	0.0	12.0	12.0	5.58	0.61	0.01	1.00	0.02
S2758	Longhole	0.0	8.0	8.0	1.72	0.03	0.00	0.77	0.00
T2759	Longhole	4.0	24.0	20.0	2.36	1.15	0.00	1.13	0.00
T2760	Longhole	0.0	16.0	16.0	2.50	0.04	0.00	0.75	0.00
T2801	Longhole	12.0	28.0	16.0	6.33	0.00	0.00	0.00	0.00

84-G-1 was a core hole drilled from surface near the Laxey level adit. This core hole was oriented south-southwest and inclined 70 degrees down the dip of the Laxey marble.

SML-1 was a core hole drilled from the Laxey level near the Texas ore zone. This core hole was oriented north-northwest and inclined 50 degrees down the dip and along strike of the Laxey marble.

The S- series core holes were drilled off the Sonneman level in between the DMEA and Texas mineralized zones. Drilling was predominantly oriented along strike of the Laxey marble at various inclinations.

The ST series core holes were drilled off the Sonneman drift in the DMEA and Texas mineralized zones. The drilling was oriented horizontally on either rib of the drift across the thickness of the Laxey marble. Drilling was terminated when the hanging wall or footwall schist was encountered.

The T28 series core holes were drilled off of a raise between the Laxey and Sonneman levels in the Texas massive sulfide zone. The drilling was oriented horizontally, fanning out between 190 and 345 degrees azimuth along strike and across thickness of the Laxey marble. The approximately 125-ft long raise was developed from the Sonneman level in the footwall schist adjacent to the Laxey marble.

The T29 series core holes were drilled off the Sonneman level in the Texas mineralized zone. The drilling was inclined between -40 and -70 degrees in multiple directions along the dip of the Laxey marble.

The 3000 series longholes were drilled off the Sonneman drift in the DMEA and Texas zones. The drilling was oriented horizontally on either rib of the drift across the thickness of the Laxey marble. Drilling was terminated when the hanging wall or footwall schist was encountered.

The LH series longholes were drilled off the Laxey level in the DMEA massive sulfide zone. The drilling was oriented horizontally on either rib of the drift across the thickness of the Laxey marble. Drilling was terminated when the hanging wall or footwall schist was encountered.

The N series, O series, P series, Q series, and R series longholes were drilled off the Sonneman level in the DMEA ore zone. The drilling was oriented horizontally and in multiple directions across the thickness of the Laxey marble. Drilling was terminated when the hanging wall or footwall schist was encountered.

The S series and T series longholes were drilled off the Sonneman level in the Texas ore zone. The drilling was oriented horizontally on either rib of the drift across the thickness of the Laxey marble. Drilling was terminated when the hanging wall or footwall schist was encountered.

The ATDH series vertical air track drillholes are located northeast of the Laxey marble, except ATDH-14 which is southwest of the Laxey marble, and were drilled from surface. No significant results are discussed from these drillholes.

10.2   THMG Drilling Exploration

Since 2008, THMG has drilled 27 holes for a total of 16,600 ft. Twenty of the holes are diamond core holes, and the remaining seven are RC. Drilling carried out by THMG is summarized in Table 10-4. THMG drillhole collar locations were surveyed by THMG's Project Manager, Mike Smith, a licensed land surveyor and registered Professional Engineer. The drill collars were located as close to the coordinate as possible with the direction and angle corresponding to the survey. THMG's core drilling is largely oriented perpendicular to the mineralized zones, and as such associated significant intercepts are considered representative of the true thickness of mineralization. Orientation of the RC holes with respect to the mineralized zones is variable, and associated sample lengths do not necessarily represent the true thickness of mineralization. HRC knows of no other drilling, sampling, or recovery factors that might materially impact the accuracy of the drilling results. Table 10-5 summarizes significant intercepts encountered by the drilling.

Table 10-4 THMG Drilling Exploration

Year	Drilling Contractor	Type	Count	Total Depth (ft)
2008	REI	Core HQ	2	2084
2010	Envirotech	RC	7	5065
2013	KB	Core HQ	12	7589
2014	KB	Core NQ	6	1862
		Totals:	**27**	**16600**

Table 10-5 Significant Intercepts from THMG Drilling Campaigns

Hole ID	Type	From	To	Length	Ag (opt)	Zn %	Au (opt)	Cu %	Pb %
DMEA2	Core	657.0	669.5	12.5	1.65	12.20	0.07	0.18	0.31
DMEA2	Core	688.0	693.5	5.5	3.25	4.85	0.20	0.24	0.19
LO-06	RC	760.0	790.0	30.0	1.86	3.48	0.04	0.21	0.16
LO-07	RC	600.0	625.0	25.0	1.15	8.56	0.00	0.04	0.09
TX13-01	Core	295.0	326.0	31.0	4.69	4.02	0.01	0.58	0.15
TX13-02	Core	308.0	339.0	31.0	4.55	4.30	0.02	0.29	1.46
TX13-03	Core	288.0	300.0	12.0	9.01	14.08	0.01	1.43	0.35
TX13-03	Core	318.0	339.0	21.0	5.54	7.24	0.00	0.86	0.13
TX13-05	Core	518.0	535.0	17.0	8.06	3.54	0.00	1.81	0.20
TX13-06	Core	482.0	505.0	23.0	11.94	4.14	0.01	2.90	0.92
TX13-07	Core	506.0	516.0	10.0	3.55	0.07	0.00	0.03	0.07
DMEA13-08	Core	503.0	518.0	15.0	4.39	21.14	0.12	0.34	0.31
DMEA13-09	Core	503.0	518.0	15.0	2.67	20.14	0.22	0.27	0.35
DMEA13-10	Core	496.0	522.0	26.0	3.04	2.56	0.01	0.58	0.05
LX13-11	Core	516.0	536.0	20.0	6.56	10.91	0.01	0.11	0.27
DM2UC13-13	Core	162.0	184.0	22.0	4.72	12.31	0.07	0.48	1.56
DM2UC13-14	Core	163.5	256.5	93.0	12.75	13.79	0.08	0.45	7.07
DM2UC13-14	Core	301.0	331.0	30.0	3.17	14.46	0.14	0.29	0.67
DM2UC13-15	Core	98.0	113.0	15.0	5.01	5.56	0.01	1.42	0.11
DM2UC13-16	Core	85.0	111.0	26.0	5.39	3.89	0.01	1.81	0.34
DM2UC13-17	Core	210.0	252.0	42.0	2.98	17.86	0.13	0.18	0.47
DM2UC13-17	Core	277.0	313.5	36.5	2.45	9.07	0.03	0.85	0.22

THMG completed two core holes in 2008, TX-1 and DMEA2. TX-1 was drilled from surface, oriented south-southwest and inclined -60 degrees targeting Texas ore zone mineralization. The drillhole was surveyed down-the-hole with a single shot camera every 10ft. The drillhole did not intersect any mineralization, because the drillhole orientation followed the Laxey marble down dip. DMEA2 was drilled from surface, and oriented vertically. The drillhole was surveyed down-the-hole every 10ft using a Deviflex multishot survey tool. The drillhole intersected DMEA zone mineralization at depth.

In 2010, THMG completed seven RC drillholes with the prefix LO. The drillholes were vertically oriented and not surveyed down-the-hole. LO-01 through LO-05 targeted the intrusive breccia defined by geologic mapping and rock chip samples across a strike length of 4,440ft. These drillholes were assayed for gold only and intersected several low-grade intercepts (Table 10-6). Although these results are encouraging, more drilling is required before a mineral resource can be estimated from these drillholes.

Table 10-6 Significant Intercepts from THMG Drilling Campaign - Intrusive Breccia

Hole ID	Type	From	To	Length	Au (opt)
LO-01	RC	290.0	355.0	65.0	0.012
LO-02	RC	675.0	685.0	10.0	0.011
LO-03	RC	45.0	80.0	35.0	0.012
LO-03	RC	145.0	205.0	60.0	0.010
LO-03	RC	235.0	280.0	45.0	0.011
LO-03	RC	460.0	470.0	10.0	0.014
LO-03	RC	570.0	580.0	10.0	0.007
LO-03	RC	680.0	690.0	10.0	0.019
LO-04	RC	25.0	35.0	10.0	0.014
LO-05	RC	290.0	345.0	55.0	0.008
LO-05	RC	400.0	410.0	10.0	0.021
LO-05	RC	470.0	485.0	15.0	0.008
LO-05	RC	600.0	610.0	10.0	0.017

The LO-06 and LO-07 tested DMEA and Laxey ore zone mineralization, respectively, at depth below the Sonneman. Both drillholes intersected mineralization, with LO-06 intercepting the DMEA2 sulfide zone downdip of the DMEA2 drill hole by about 110 feet, extending the depth of known mineralization to more than 450 feet below the Sonneman level.

The 2013 drilling program consisted of 12 drillholes targeting three ore zones from surface and surveyed down-the-hole every 10ft using a Deviflex multishot survey tool. TX13-01 through TX13-03 were oriented northeast and inclined between -55 and -65 degrees. They were successful in extending mineralization 220ft above the Laxey level. TX13-04 through TX13-07 targeted Texas ore zone mineralization below the Laxey level. These drillholes were oriented southwest and inclined between -60 and -70 degrees. This drilling orientation is not preferred for intersecting mineralization across the true thickness of the deposit, however, 3 of the 4 drillholes did intersect massive sulfide mineralization associated with the Texas zone. DMEA13-08 through DMEA13-10 targeted DMEA zone mineralization between the Laxey and Sonneman levels. DMEA13-08 and DMEA13-09 were oriented northwest and inclined at -66 degrees. DMEA13-10 was oriented east and inclined at -45 degrees. All three drillholes were successful in intersecting mineralization in the DMEA zone. LX13-11 and LX13-12 were oriented northeast and inclined at -60 and -75 degrees respectively. These followed up on the results from LO-07 targeting Laxey zone mineralization at depth and were successful. TX13-01 through TX13-07 targeted the Texas zone.

The 2013 drilling also included 6 underground core drillholes with the prefix DM2UC13. They were drilled off the Sonneman level (Muck Bay 5) in order to determine the geometry of the DMEA mineralized zone as it passes through the Sonneman level to the intervals intersected at depth in DMEA2 and LO-06. The drilling was oriented 133 degrees azimuth along strike of the Laxey marble and inclined in a fan from -12 to -47 degrees in 5-degree increments. The drilling was not surveyed down-the-hole. The program was successful in defining the geometry, and confirming the grades of the DMEA massive sulfide zone.

11.   SAMPLE PREPARATION, ANALYSIS AND SECURITY

11.1   2008 - 2009 Sample Preparation and Analysis

All rock chip samples reported during the 2008 and 2009 field programs were collected by Mr. Pete Parsley, Vice President of Exploration for THMG, who kept the samples personally secured prior to shipment to the laboratory. Approximately two to seven pounds of rock chips were collected from each sample site. The samples were sealed in cloth sacks with a sample tag bearing THMG's sample designation.

Drill core collected during the 2008 ad 2009 drilling programs was transported to the THMG Garden City, Idaho office for logging and sampling. Sample intervals ranging in length from 1 to 3.7 ft were selected based on changes in lithology and/or mineralogy. The selected sample intervals were split by THMG staff using a diamond saw. One half of each core sample was retained for logging, and the other prepared for shipment to the laboratory for assay.

Sample preparation for all of the THMG rock chip and core samples was completed by ALS Chemex at their preparation facility in Elko, Nevada, and analysis was performed by ALS Chemex in Vancouver, BC. ALS is an ISO/IEC accredited laboratory and conforms with requirements of CAN-P-1579 and CAN-P-4E of the Standards Council of Canada. The samples were analyzed for gold using ALS method codes AA23 and GRA21, and for all other elements using ALS method code ME-MS41.

11.2   2010 – 2014 Sample Preparation and Analysis

Samples collected during the 2010 through 2014 field seasons include drill core and channel samples. Drill core and channel samples were collected on-site and transported to the Jordan Valley field office by THMG personnel. Core was logged and split in Jordan Valley, and samples selected for assay were placed in appropriately labeled cloth sacks in preparation for shipment to the laboratory. All samples were delivered to ALS Chemex in either Elko or Reno by THMG staff.

Sample preparation methods carried out by ALS include:

- Log received sample weight
- Crush entire sample to 70% passing -6 mm
- Fine crush to 70% passing -2 mm
- Split sample using riffle splitter
- Pulverize split to 85% < 75 microns
- Send samples to Laboratory in Vancouver, BC for final analysis

ALS employed the following analytical procedures for the 2010 – 2014 samples from the South Mountain Project:

- ME-ICP$_{61}$ (four acid digestion-33 element ICP-AES finish)-all samples.
- ME-OG$_{46}$ (four acid digestion-ICP-AES finish) – Cu,Pb, Zn >10,000 ppm.
- AG-GRA$_{21}$(fire assay-gravimetric finish)- Ag,>100 ppm.
- AU-AA$_{23}$ (fire assay-AAS finish)

11.2.1   QA/QC

THMG submitted blank samples with each set of drillhole samples, and one set of duplicate samples for a single hole with unusually high massive sulfide grades (DM2UC13-14). No standard reference samples were submitted for analysis. A total of 14 blanks were submitted.

11.2.1.1   Blank Sample Analysis

A total of 14 blanks were submitted as pulps in order to monitor the integrity of laboratory analytical procedures. A blank analysis ≥5 times the laboratory detection limit is considered a blank failure. Detection limits for gold and silver are this 0.005 ppm and 0.5 ppm, respectively. Detection limits for Cu, Pb, and Zn are 1, 2, and 2 ppm respectively. Blank analytical results indicate no failures for gold, a single failure for silver, and a single failure for zinc. Results of blank analysis for both lead and copper indicate either consistent contamination, or, more likely, a blank which isn't actually blank for lead and copper. Blank analytical results are presented in Figures 11-1 through 11-5.
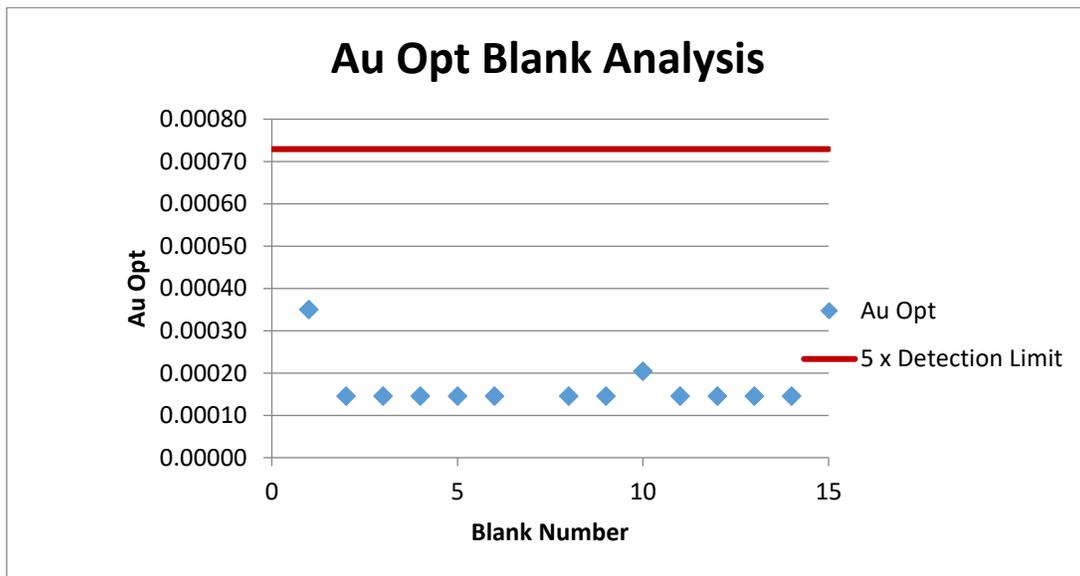
Figure 11-1 Blank Sample Analytical Results - Au

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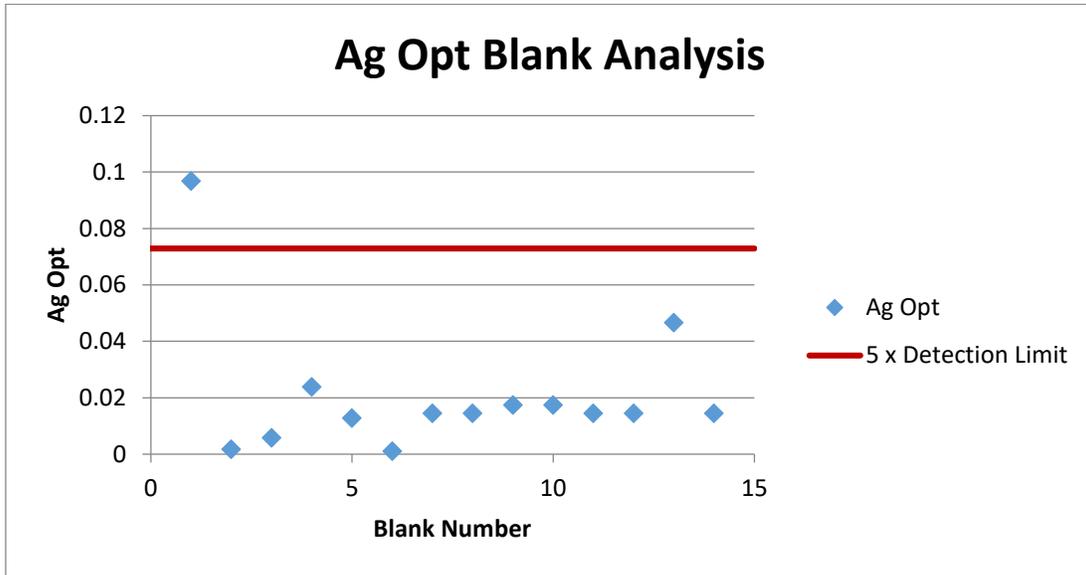
Figure 11-2 Blank Sample Analytical Results - Ag
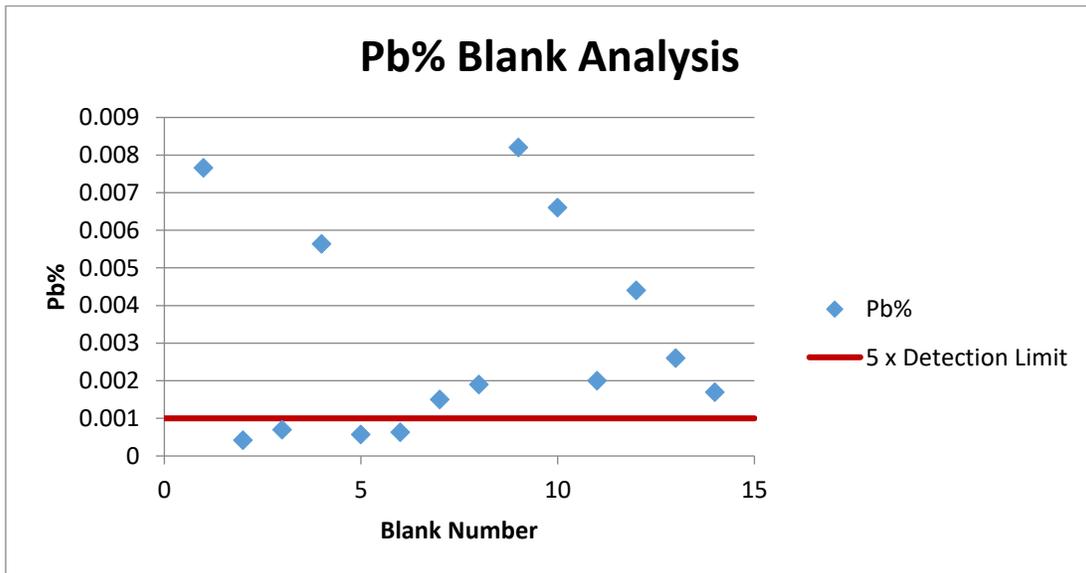
Figure 11-3 Blank Sample Analytical Results - Pb
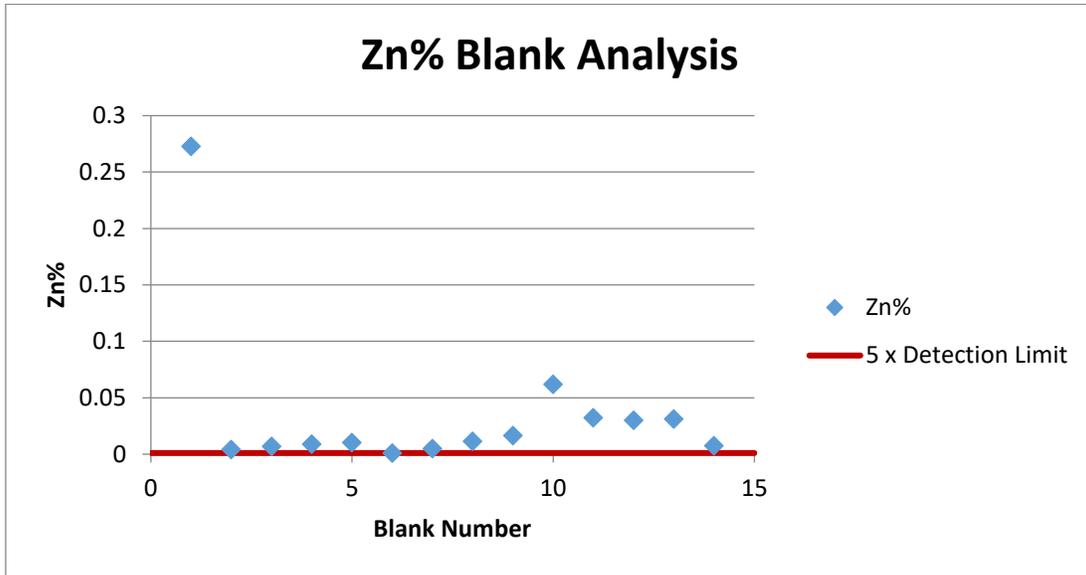
Figure 11-4 Blank Sample Analytical Results - Zn
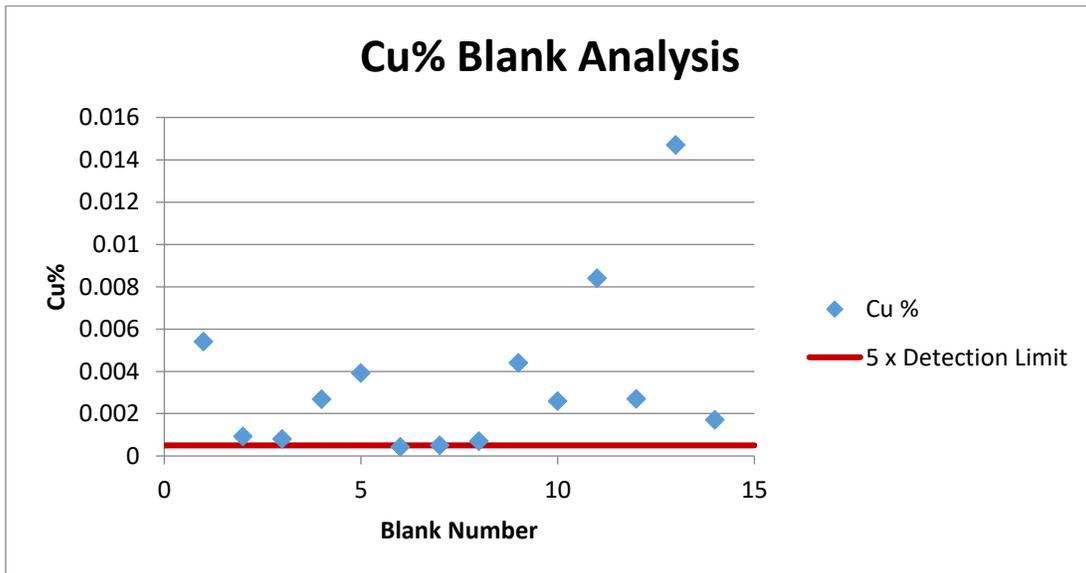
Figure 11-5 Blank Sample Analytical Results - Cu

11.2.1.2   Duplicate Sample Analysis

To date, THMG has not regularly submitted duplicate samples as part of an overall QA/QC program. The results from one exceptionally high-grade hole were questioned, and a set of duplicate assays were obtained from crushed drill core rejects of the original samples for that hole. The following two paragraphs are excerpts from an internal memo that describes this procedure:

The original ALS Analysis results for Drill hole DM2UC13-14 (ALS #RE 13229714) contained exceptionally high lead assays that ranged up to 20% lead. These results are much higher than any other lead results received in the 2013 drill core program, and were a cause for concern. It was surmised that there could have been an analytical error or a decimal point error in the original analysis. Therefore, it was decided to reanalyze the string of eleven high samples using sample material from the original crushed drill core rejects stored at ALS facilities, Reno, Nevada.

Reject sample material was collected from sample numbers #261616 to 261626 and subjected to the same sample preparation and analytical procedures as the original samples. This included initial analysis using ME-ICP61 for most elements and Au-AA23 for gold analysis. All over limit base metal results were analyzed by a higher-grade reporting procedure ME-ICP62. All over limit precious metals were analyzed by Au-Ag GRA21 procedures.

Results of the duplicate analysis are presented in Figures 11-6 through 11-10. The results show that there are no significantly higher values in the original analysis for Pb or any of the other metals of interest. It should be noted that the original assay values were retained in the master drillhole database and are those used for modeling purposes.
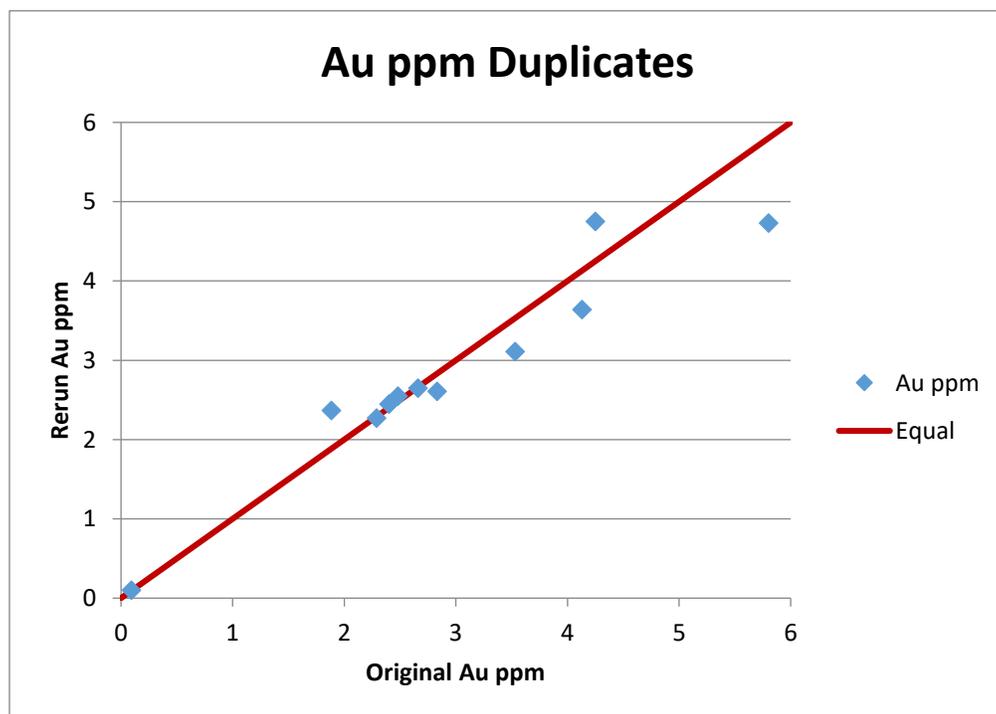
Figure 11-6 Duplicate Sample Analysis - Au
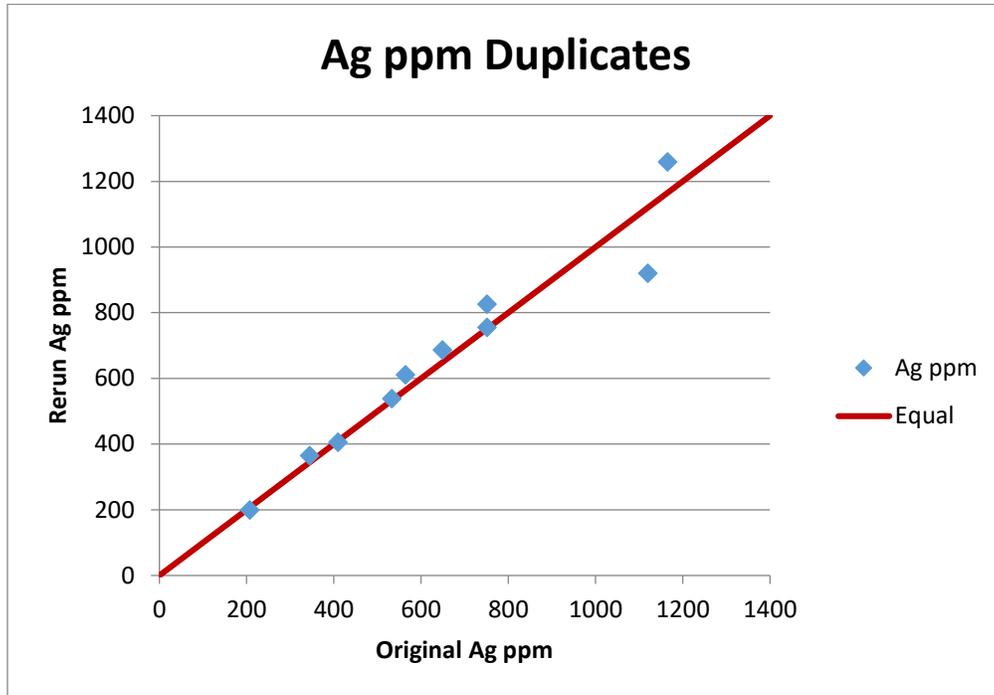
Figure 11-7 Duplicate Sample Analysis - Ag
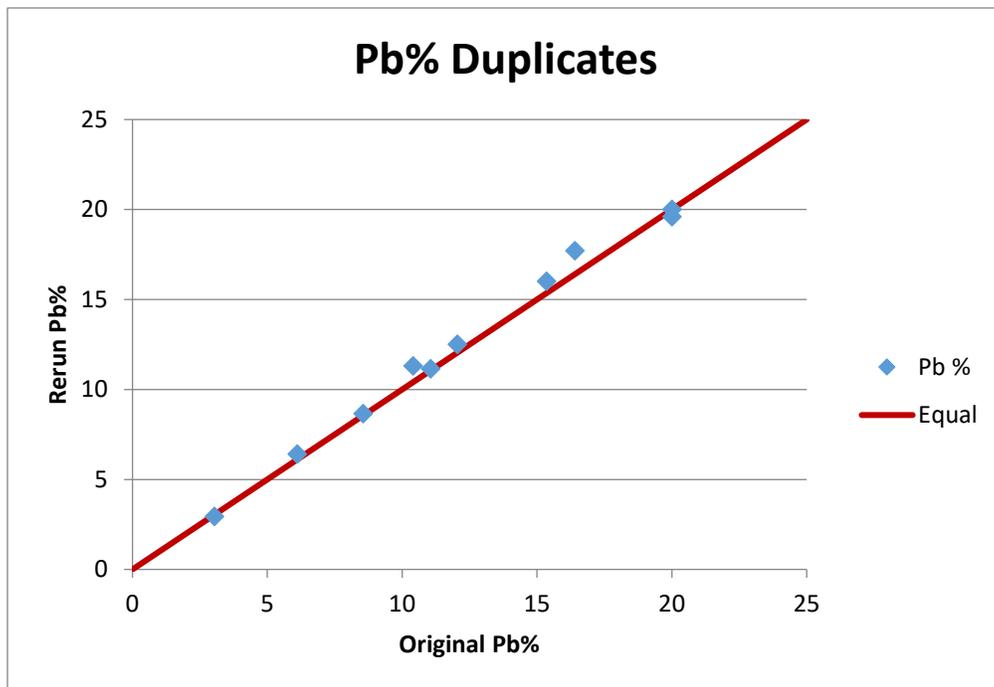
Figure 11-8 Duplicate Sample Analysis - Pb
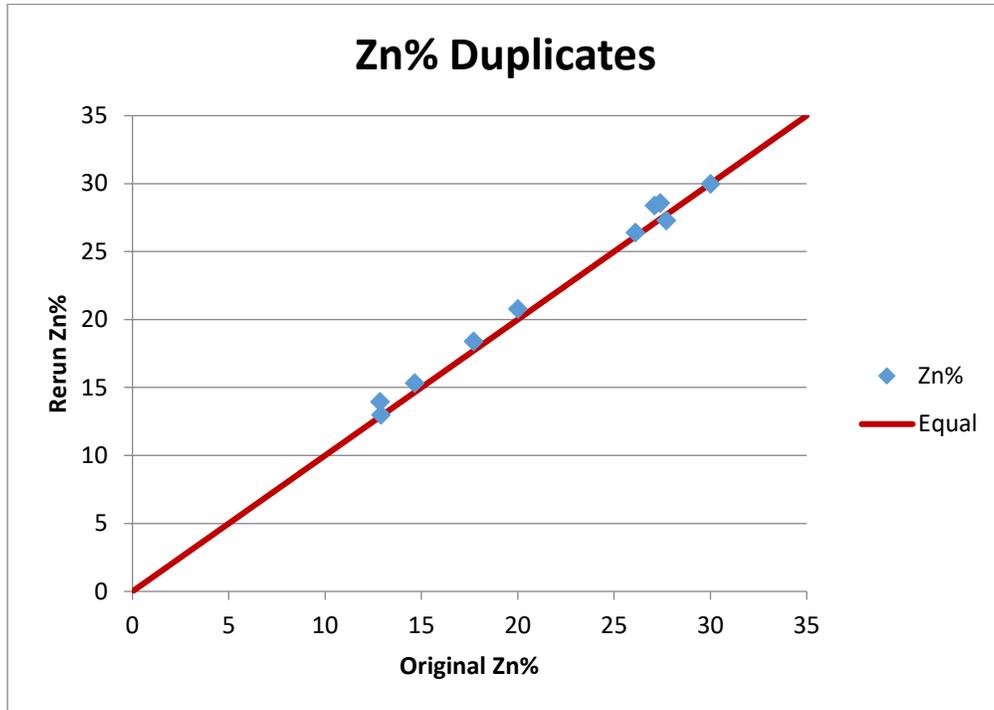
Figure 11-9 Duplicate Sample Analysis - Zn
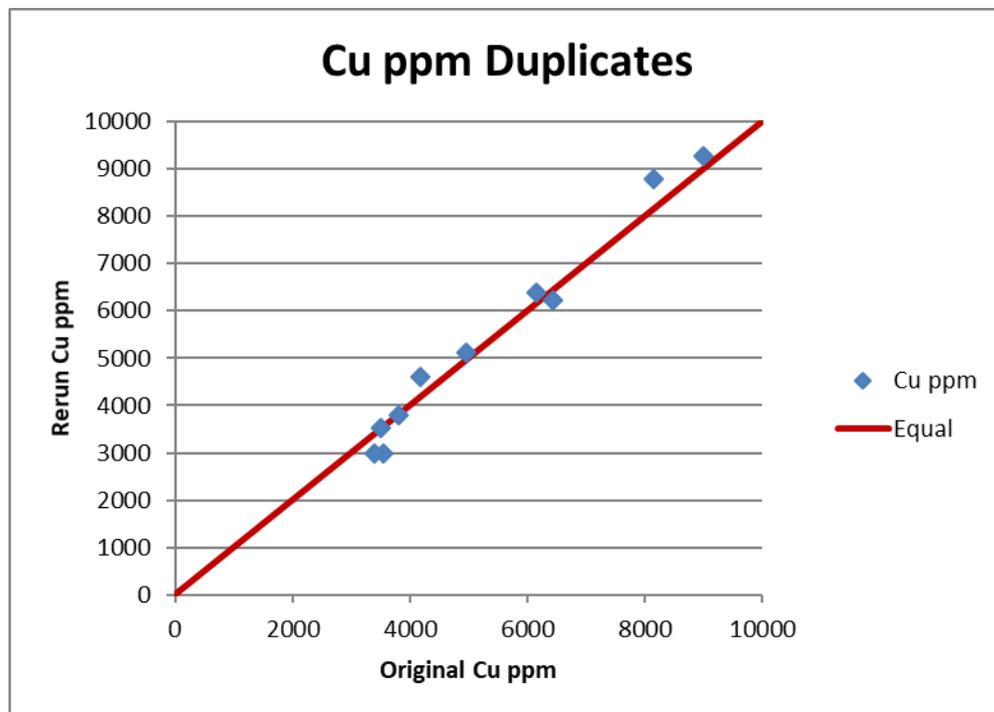
Figure 11-10 Duplicate Sample Analysis - Cu

11.3   Sample Storage and Security

Drill core, chip trays, and pulp rejects are stored in locked, Connex-style shipping containers located at the Project site. Coarse rejects are temporarily stored in a secure rental storage unit in Elko, Nevada, and are periodically hauled to the mill site for long term storage in the gated, covered storage area. Samples are continuously monitored by THMG personnel from the time of collection through delivery to the lab. THMG employs standard chain of custody procedures, including formal COC documentation, during all phases of sample transport.

11.4   Opinion on Adequacy

HRC finds the sample preparation, analytical procedures, and security measures described herein to be reasonable and adequate to ensure the validity and integrity of the data derived from THMG's sampling programs, with some room for improvement. Based on observations and conversation with THMG personnel during the QP site visit, in conjunction with the results of HRC's review and evaluation of THMG's QA/QC program, the QP makes the following recommendations:

- Formal, written procedures for data collection and handling should be developed and made available to THMG field personnel. These should include procedures and protocols for field work, geological mapping and logging, database construction, sample chain of custody, and documentation trail. These procedures should also include detailed and specific QA/QC procedures for analytical work, including acceptance/rejection criteria for batches of samples.

- A detailed review of field practices and sample collection procedures should be performed on regular basis, to ensure that the correct procedures and protocols are being followed.

- Review and evaluation of laboratory work should be an on-going process, including occasional visits to the laboratories involved.

- THMG's existing QA/QC program should be expanded to include at least standards, blanks, and duplicates. All QA/QC control samples sent for analysis should be blind, meaning that the laboratory should not be able to differentiate a check sample from the regular sample stream. The minimum control unit with regard to check sample insertion rate should be the batch of samples originally sent to the laboratory. Samples should be controlled on a batch by batch basis, and rejection criteria should be enforced. Ideally, assuming a 40-sample batch, the following control samples should be sent to the primary laboratory:
  - Two blanks (5% of the total number of samples). Of these, one coarse blank should be inserted for every 4th blank inserted (25% of the total number of blanks inserted).
  - Two pulp duplicates (5% of the total number of samples)
  - Two coarse duplicates (5% of the total number of samples)
  - Two standards appropriate to the expected grade of the batch of samples (5% of the total number of samples).

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- For drill hole samples, the control samples sent to a second (check) laboratory should be from pulp duplicates in all cases and should include one blank, two sample pulps, and one standard for every 40-sample batch.

- The purpose of the coarse duplicates is to quantify the variances introduced into the assay grade by errors at different sample preparation stages. Coarse duplicates are inserted into the primary sample stream to provide an estimate of the sum of the assay variance plus the sample preparation variance, up to the primary crushing stage. An alternative to the coarse duplicate is the field duplicate, which in the case of core samples, is a duplicate from the core box (i.e. a quarter core or the other half core). If coarse duplicates are preferred (in order to preserve drill core), the coarse duplicates should be sent for preparation and assaying by the second laboratory.

- QA/QC analysis should be conducted on an on-going basis and should include consistent acceptance/rejection tests. Each round of QA/QC analysis should be documented, and reports should include a discussion of the results and any corrective actions taken.

12.   DATA VERIFICATION

Data verification efforts carried out by HRC include:

- Discussions with THMG personnel;
- Personal investigation of the Project and field office;
- Mechanical audit of the exploration drillhole database received from THMG;
- Detailed review of additional information obtained from historical reports and internal company reports;
- Validation of the geologic information as compared to the paper logs; and
- Validation of the assay values contained in the exploration database as compared to assay certificates from records found on file in THMG's Jordan Valley, Oregon field office.

12.1   Site Investigation

HRC representatives and QP's J.J. Brown, P.G., and Randy Martin, conducted an on-site inspection of the South Mountain Project and Jordan Valley field office on April 2 through 4, 2018, accompanied by THMG CEO Eric Jones and Jim Collord, THMG Vice President and COO. While on site, HRC conducted general geologic field reconnaissance, including inspection of on-site facilities and examination of underground bedrock exposures and drill collar locations in Muck Bay 5 on the Sonneman level. HRC also examined select core intervals from historic and recent drilling, obtained a variety of duplicate samples for independent check sampling, and reviewed with THMG geology staff the conceptual geologic model, data entry and document management protocols, and drilling and sampling procedures and the associated quality assurance and quality control ("QA/QC") methods presently employed.

Field observations during the site visit generally confirm previous reports on the geology of the Project area. Bedrock lithologies, alteration types, and significant structural features are all consistent with descriptions provided in existing Project reports, and the author did not see any evidence in the field that might significantly alter or refute the current interpretation of the local geologic setting. A total of 7 specific core intervals from 3 separate drill holes were selected for visual inspection and check sampling based on a preliminary review of the drill hole logs and associated assay values. The samples were selected from low, moderate, and high-grade intervals. In all cases, the core samples accurately reflect the lithologies recorded on the logs and the degree of visible alteration and evidence of mineralization observed was generally consistent with the grade range indicated by the original assay value.

The check samples were bagged, labelled, and further prepared for shipment by HRC during the site visit. Laboratory analysis was completed by ALS in Reno, Nevada using the same sample preparation and analytical procedures as were used for the original samples. A comparison of the check sample assay results against the original assay data shows very good correlation for silver and zinc (Figures 12-1 and 12-2). Copper, lead and gold all show very good correlation at low and moderate grades, with some variation of the higher grades, and one extreme high-grade outlier for gold (Figures 12-3 through 12-5). Extreme high grades are often difficult to reproduce, and some variation is generally expected. Given the similar tenor of the high-grade sample results (all significantly high), the degree of variance displayed here is considered acceptable.
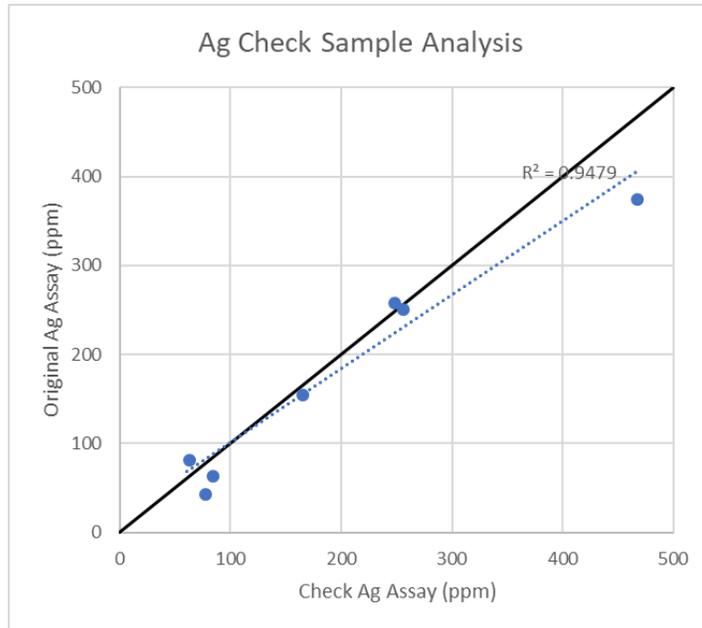
Figure 12-1 Ag Check Sample Analysis
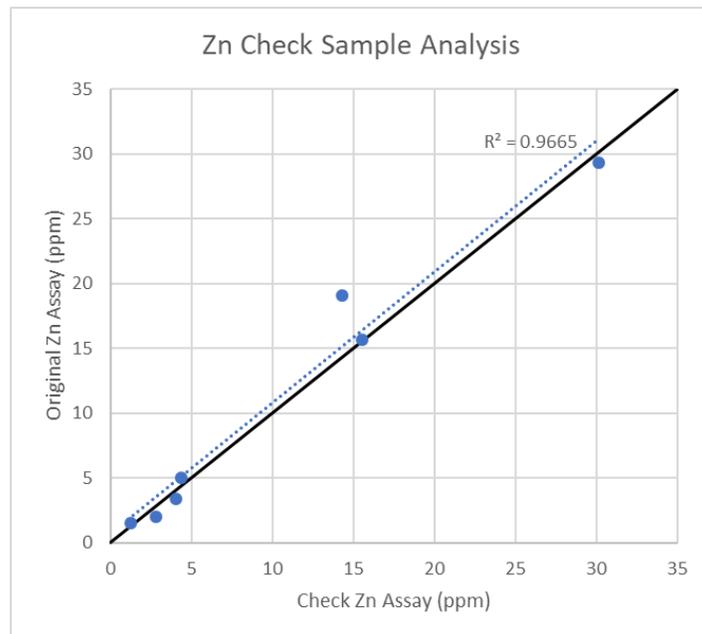
Figure 12-2 Zn Check Sample Analysis
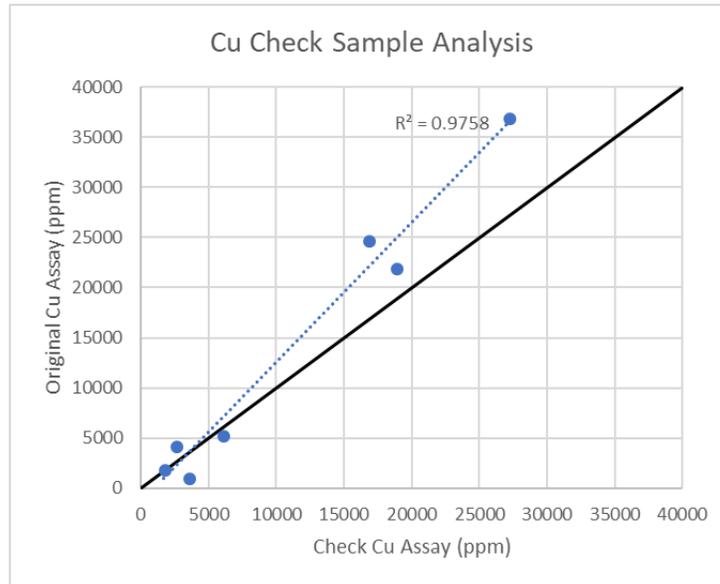
Figure 12-3 Cu Check Sample Analysis
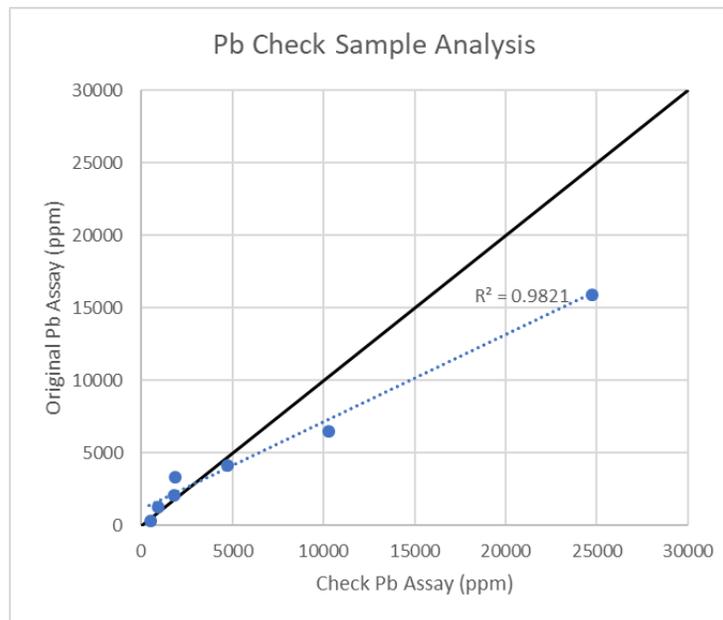
Figure 12-4 Pb Check Sample Analysis
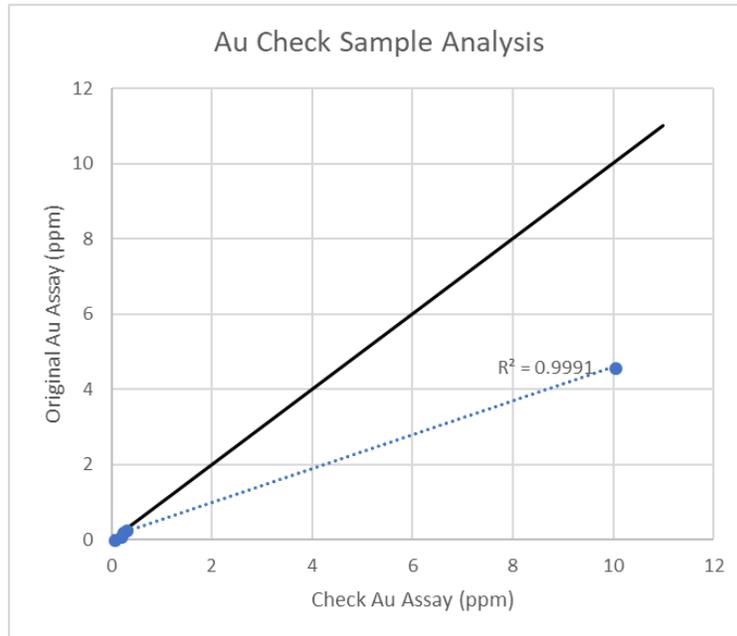
Figure 12-5 Au Check Sample Analysis

12.2   Mechanical Audit

The mineral resource estimate is based on the exploration database provided to HRC by THMG in the form of four comma separated value files (.CSV). A mechanical audit of the database was completed using MicroMODEL and Leapfrog Geo version 4.1.1 mining software. The database was checked for overlaps, gaps, total drill-hole length inconsistencies, non-numeric assay values, missing assays, missing lithology, and incorrect collar elevation (surface holes only).

Prior to performing a mechanical audit, HRC removed assay interval entries for BLANK standard results, as they are not part of the downhole interval information for any channel sample or drillhole. HRC also renamed five channel samples for which the sample ID's were too long for use by the software.

The following channels were removed from the database because they did not have any azimuth or dip information in the survey file: CH_2193, CH_3570, CH_3667, and PLH-15. These channels also had just one entry in the assay interval file with a "from" value of zero, no "to" value, and no valid assay values.

Holes with collar information but no associated assay data are listed in Table 12-1. Holes and channels with collar information but no associated lithology Information are presented in Table 12-2. Holes with gaps in assay interval are listed in Table 12-3.

Table 12-1 Holes with no Assay

Holes/Channels with no Assay Information
ATDH-14
ATDH-15
ATDH-16
ATDH-17
ATDH-18
Austral5-1
Austral5-2
Austral5-3
Austral5-4
Austral5-5
Austral5-6
Austral5-7
Austral5-8
TX-1

Table 12-2 Holes/channels with no Lithology

Holes/Channels with No Lithology Information		
3487	CH_2193	CH_3708_3720
3488	CH_3415	CH_3721_3646
3489	CH_3416	DM2UC13-18
3721_3656	CH_3417	LO-01
CH_2151	CH_3429_3468	LO-02
CH_2152	CH_3469_3481	LO-03
CH_2153	CH_3482_3486	LO-04
CH_2154	CH_3490_3534	LO-05
CH_2155	CH_3539_3542	OGT161671-02
CH_2156	CH_3554_3563	OGT161714-22
CH_2157	CH_3559_3566	OGT161724-30
CH_2158	CH_3567_3569	OGT161731-4
CH_2159	CH_3570	OGT161735-9
CH_2160	CH_3571_3573	PC-1
CH_2161	CH_3574	PLH-15
CH_2162	CH_3575_3579	PLH-2
CH_2163	CH_3600_3605	PLH-3
CH_2164	CH_3651	PLH-35
CH_2165	CH_3652	PLH-4
CH_2167	CH_3653	ST-13
CH_2168	CH_3654	T2801
CH_2169	CH_3655	T2802
CH_2170	CH_3656	T2803
CH_2171	CH_3657	T2804
CH_2172	CH_3658	T2805
CH_2173	CH_3659	T2806
CH_2175	CH_3660	T2807
CH_2176	CH_3661	T2808
CH_2177	CH_3662	T2809
CH_2178	CH_3663	T2810
CH_2179	CH_3664	
CH_2180	CH_3667	

Table 12-3 Holes with Gaps in Assay Interval

Hole	From	To		Hole	From	To

Holes with Gaps in Assay Interval File						
Hole	From	To		Hole	From	To
3721_3656	5	10		LO-06	255	300
3721_3656	15	20		LO-06	305	350
3721_3656	25	30		LO-06	355	400
3721_3656	35	40		LO-06	405	450
3721_3656	45	50		LO-06	455	500
3721_3656	55	60		LO-06	505	550
3721_3656	65	70		LO-06	555	600
3721_3656	75	80		LO-06	605	655
3721_3656	85	90		LO-06	660	700
3721_3656	95	100		LO-06	810	845
3721_3656	105	110		LO-06	850	870
3721_3656	115	120		LO-07	0	50
3721_3656	125	130		LO-07	55	95
3721_3656	135	140		LO-07	100	150
3721_3656	145	150		LO-07	155	195
3721_3656	155	160		LO-07	200	250
3721_3656	165	170		LO-07	255	295
3721_3656	175	180		LO-07	300	350
3721_3656	185	190		LO-07	355	395
LO-06	0	50		LO-07	400	450
LO-06	55	100		LO-07	455	495
LO-06	105	150		LO-07	500	525
LO-06	155	200		TX13-01	307	314
LO-06	205	250		TX13-02	328	333

12.2.1   Missing Assay Values

The raw data files contained a total of 3100 from-to intervals. There were no missing silver assays in the database. There were 719 intervals without gold assays, 1409 intervals without copper assays, 1429 intervals without lead assays, and 1413 intervals without zinc assays.

12.2.2   Collar Elevation Check

The collar coordinate elevations for surface drillholes were compared to the corresponding elevation from the surface triangulation. Only one hole that is near the Sonneman/Laxey underground workings was more than 10 feet different in elevation as compared to the digital topo model. This is hole 84-G-1. Its collar elevation is 16 feet higher than the digital topo model would predict. Although this hole contains some high-

grade intercepts, it is approximately 1000 feet from the area in which any resource tonnage will be calculated. Therefore, the collar elevation was left "as is" for this study. No other significant errors were identified in the collar survey file.

12.2.3   Certificates

HRC received original assay certificates from ALS Chemex in pdf format for all samples included in the current drill-hole database. A thorough check was made comparing assays in the database against those listed on the assay certificates. Values for all five primary metals (Au, Ag, Cu, Pb, and Zn) were compared.

After inspecting 5% sample intervals, only a single problem was found. For drillhole DM2UC13-18, the master spreadsheet for assay values had assigned the same sample number (261685) to all four assay intervals for the hole. This was causing intervals two through four in this hole to be assigned the same values as interval one. Jerritt Collord was notified, the master spreadsheet was fixed, and a new assay interval CSV file was issued.

The database was reloaded, and DM2UC13-18 was rechecked and found to contain no errors. Because this one problem was discovered, HRC opted to inspect another 5% of the sample intervals. Zero errors were found inspecting this second group of intervals.

12.3   Adequacy of Data

Based on the results of HRC's site investigation and data validation efforts, HRC considers THMG's drilling and sampling data, as contained in the current Project database, to be reasonably accurate and suitable for use in estimating mineral resources.

The database audit work completed to date indicates that occasional inconsistencies and/or erroneous entries are likely inherent or inevitable in the data entry process. The QP recommends that THMG establish a routine, internal mechanical audit procedure to check for overlaps, gaps, total drill hole length inconsistencies, non-numeric assay values, and negative numbers. The internal mechanical audit should be carried out after any significant update to the database, and the results of each audit, including any corrective actions taken, should be documented and stored for future use in database validation.

13. MINERAL PROCESSING AND METALLURGICAL TESTING

Mineralization at the South Mountain Project is polymetallic, consisting of gold, silver, lead, and zinc. Mineralogical examination of samples from the deposit indicated that the mineralized zones contain significant sulfide content, with the DMEA zone containing approximately 80% sulfides (mostly pyrrhotite, sphalerite, and pyrite). Analyses of sphalerite in the DMEA zone indicate that this mineral contains approximately 12% Fe. These high iron-bearing zinc sulfide minerals are often referred to as marmatite. The pyrrhotite was identified as the monoclinic variety and is therefore magnetic.

Two metallurgical test programs have been conducted in the past, one undertaken by Dawson Metallurgical Laboratories 1987 and one undertaken by FLSmidth's Dawson Metallurgical Laboratories in 2014. The majority of the samples have been from the DMEA zone, which represents the majority of the resource. Additional bulk samples have been tested along with one sample from the Laxey Sulfide zone.

13.1 1987 Preliminary Selective Lead-Zinc Flotation Testing

In 1987, Dawson Metallurgical Laboratories, Inc. performed cursory flotation testing to provide data for net smelter evaluation. This work focused on producing a precious metal bearing lead concentrate and a separate zinc concentrate. Approximately 60% of the gold, 78% of the silver and 91 percent of the lead was recovered into a lead cleaner concentrate assaying over 100 ppm Au, 4000 ppm Ag and 54% Pb. Subsequent zinc flotation recovered 86% of the zinc into a 3rd cleaner concentrate that assayed 53% Zn.

Although six different samples were received for the 1987 test work only the larger 300-pound bulk sample was used in the flotation tests. The bulk sample was thoroughly mixed, and 75 pounds was carefully split out and stage crushed to a 20-mesh using a rolls crusher. The other five individual samples were stored as received for possible future testwork. A sample of the minus 20 mesh was split out and submitted for Head assays, the results if the head assay compared to the back calculated head grade from the test work are presents in Table 13-1 below.

Table 13-1 1987 Bulk Sample Head Assay Results

	Au opt	Ag opt	Cu %	Pb %	Zn %	Fe %
Assayed Head	0.190	6.10	0.50	2.30	16.35	27.90
	0.190	6.39	0.57	2.49	16.90	N/A

The bulk sample responded well to selective flotation. A high degree of selectivity was obtained using sodium sulfite and cyanide to depress pyrite, pyrrhotite and sphalerite during the lead flotation. The testing results are summarized below in Table 13-2.

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Table 13-2 1987 Bulk Flotation Results

Product	Weight %	Assay					Distribution %				
		Au opt	Ag opt	Cu %	Pb %	Zn %	Au	Ag	Cu	Pb	Zn
Pb Cl Conc	4.21	2.930	118.50	7.87	53.60	4.20	61.1	77.8	57.4	91.4	1.1
Zn Cl Conc	27.22	0.080	1.00	0.25	0.10	52.80	10.8	4.2	11.7	1.1	85.7
Zn Scav Tails	26.97	0.010	0.20	0.04	0.05	0.30	1.3	0.8	1.9	0.6	0.5

Some trends that observed during the flotation testing by were noted by Dawson Metallurgical Laboratories are presented below.

- Sphalerite is not naturally activated in the mineralized material and may be easily depressed during lead flotation with sodium sulfite and cyanide.

- Pyrite and pyrrhotite are easily depressed during lead flotation with depressants described above.

- Pyrrhotite is activated to some extent by copper sulfate during zinc flotation. This may explain the high iron assays in the final zinc cleaner concentrate.

- Generally silver follows copper concentrate during flotation.

While most of the gold reports to the lead concentrate, significant amounts of gold report to the zinc tailings along with pyrrhotite and pyrite.

13.2   2014 Gravity and Flotation Concentration Test Results

In May of 2014, FLSmidth's Dawson Metallurgical Laboratories completed gravity and flotation concentrate testing on a bulk composite that they prepared from 12 individual samples from the DMEA zone, this composite sample was identified as "DMEA" and included some rib samples from PLH34 taken from the rib on the Laxey drift. Another sample of approximately 150 kilograms of minus 5 cm material identified as "Bulk Composite" was received from Phillips Enterprises. This composite was prepared for test work in a similar manner to the DMEA composite. These samples did not include samples from all of the massive sulfide zones, including Texas and Laxey, identified at South Mountain.

The test work was directed into two areas as described below:

- Production of a precious metal bearing bulk concentrate containing gold, silver, lead and copper for possible feed to a hydrometallurgical facility. Sulfide flotation with and without prior gravity concentration was evaluated. Tests were performed to evaluate co-recovery of zinc into the bulk gravity or bulk flotation concentrate, in addition to recovering zinc in a separate flotation concentrate. Removal of pyrrhotite by magnetic separation was evaluated in these tests.

- Production of a selective lead concentrate containing precious metals by flotation, followed by recovery of zinc into a separate flotation concentrate. These tests were similar to those performed in the 1987 test program.

Head assay results of the composite samples are summarized below in Table 13-3.

Table 13-3 2014 Bulk Sample Head Assay Results

Composite	Assay Basis	Head Assay							
		g/ton			Weight %				
		Au	Ag	As	Pb	Cu	Zn	Fe	S=
Bulk	Direct	0.80	43	3515	0.30	0.09	7.57	21.6	17.4
	Back-Calc	0.42	51	3471	0.35	0.09	8.02	21.2	14.9
DMEA	Direct	6.48	252	12600	1.65	0.30	9.69	39.3	28.7
	Back-Calc	6.78	250	13218	1.67	0.33	10.29	39.3	30.6

13.2.1   Grind Work Index Test Results

As part of the 2014 test work Phillips Enterprises in Golden, Colorado completed Bond ball mill and rod mill work index tests on the bulk composite. The results of the test work are summarized below:

- Bond Ball Mill Work Index @ 106 μm: 10.2 Kwhr/st   11.2 Kwhr/mt
- Bond Rod Mill Work Index @ 1180 μm: 8.4 Kwhr/st   9.3 Kwhr/mt

13.2.2   Gravity Test on DMEA Composite

A six kilogram sample of DMEA composite was subjected to gravity concentration after screening the crushed ore at 100 and 325 Tyler mesh (150 and 45 μm). The purpose of this test was to determine if gravity concentration alone could recover the sulfides at a coarse grind size of 100% passing 35 Tyler mesh (425 μm). Results, summarized below, indicate that 92% of the sulfides were recovered. In this test the plus 100 mesh table concentrate, and tails were screened at 48 and 65 Tyler mesh and assayed separately.

Table 13-4 Summary of Gravity Separation Test on DMEA Composite

Tyler Screen Fraction	Table Product	Distribution, %								
		Wgt	Au	Ag	Pb	Cu	Zn	As	Fe	S=
35/48	Con	23.3	20.9	20.0	20.7	20.9	25.0	26.7	26.5	27.7
48/65	Con	15.6	14.4	14.3	16.3	14.3	16.0	18.0	17.0	15.8
65/100	Con	9.7	15.0	9.6	10.5	9.2	10.0	10.1	9.9	9.9
100/325	Con	32.9	33.6	37.8	38.7	35.6	34.3	32.4	34.0	35.2
-325	Con	3.2	8.0	6.2	4.7	5.3	4.3	5.5	2.7	3.4
Overall	Con	84.7	92.0	88.0	90.9	85.3	89.6	92.6	90.2	92.0
Overall	Tails	15.3	8.0	12.0	9.1	14.7	10.4	7.4	9.8	8.0

Results indicate that the plus 100 mesh material was not sufficiently liberated to produce a high-grade concentrate. A well-formed galena band is evident in the 100/325 and -325 mesh table tests but is absent in the +100 mesh table test.

Due to these rather inconclusive results the remainder of the test program was focused on selective flotation of precious metals into a lead concentrate followed by subsequent flotation of zinc into a sphalerite concentrate.

13.2.3   Selective Lead-Zinc Flotation of DMEA Composite

Approximately 75% of the gold and 70% of the silver were recovered into lead cleaner concentrates at a primary grind of P80 = 81 μm. These concentrates assayed 116 g/t Au, over 4000 g/t Ag, 35% Pb and 5% Cu. Pyrite and pyrrhotite accounted for almost 50% of the weight of these high grade precious metal concentrates (zinc contents were typically 3% Zn, indicating good selectivity against sphalerite). Sodium metabisulfite ($Na_2S_2O_5$) was used in these tests to minimize pyrite and pyrrhotite flotation. Subsequent sphalerite flotation using copper sulfate activator and PAX recovered approximately 96% of the zinc in the ore, except in test 9 where the zinc recovery decreased to 83%. This decreased recovery was probably due to the use of zinc cyanide complex in the primary grind. This depressant was used to minimize pyrite/pyrrhotite flotation into the lead concentrate. Results are summarized in the following tables.

Table 13-5 Summary of Lead Flotation Results

Test No.	Grind P80 μm	Depressant		Flot. Product	Wt%	Assay, g/t or wt%				Distribution, %			
		Type	lb/ton			Au	Ag	Pb	Cu	Au	Ag	Pb	Cu
6	81	MBS	0.10	Cl. Con.	4.35	116.44	4023	34	5.43	74.9	70	86.6	69.6
7	81	MBS	0.10	Cl. Con.	4.48	106.8	4147	34.7	5.2	71.8	71.3	88.1	65.6
8	97	MBS	0.10	Cl. Con.	3.47	112.7	4344	37	5.25	64.1	61.3	75	54.9
9	97	Zn(CN)2	0.01	Cl. Con.	3.88	116.43	4182	37.2	2.82	60.9	68.9	86.7	37.8
6	81	MBS	2.00	Ro. Con	7.5	69.36	2590	20.91	3.43	77	77.8	91.9	75.9
7	81	MBS	2.00	Ro. Con	7.36	66.53	2710	21.92	3.39	73.5	76.5	91.5	70.3
8	97	None	0.00	Ro. Con	6.23	64.31	2684	22.06	3.19	65.5	67.9	80.2	59.8
9	97	Zn(CN)2	0.10	Ro. Con	6.46	73.78	2735	23.09	2.47	64.2	75	89.6	55.2

Table 13-6 Zinc Rougher/Scavenger Flotation Results

Test No.	pH	Dosage, lb/ton		Wt%	Assay, wt%			Distribution, %		
		CuSO4-5H2O	SIPX		Zn	Fe	As	Zn	Fe	As
6	11.5	0.30	0.100	76.2	14.5	45.5	1.62	96	87.1	91.6
8	7-12	0.35	0.075	72.3	12.6	43.6	1.56	96.6	80.6	93.1
9	12	0.50	0.075	33.2	19.9	30.9	0.15	82.5	30.0	5.0

13.2.4   FL Smidth's Conclusions and Recommendations

Initial test work on the DMEA composite indicates that approximately 75% Au, 70% Ag and 87% Pb may be recovered into a selective precious metals-bearing lead cleaner concentrate assaying 116 gm/ton Au, 4000 gm/ton Ag, 34% Pb and 5.4% Cu. Subsequent zinc flotation recovered 96% Zn into rougher concentrates assaying 15% Zn. Detailed cleaner testing was not performed on the zinc rougher concentrates. The test work

has indicated that selective flotation results for the DMEA composite are very similar to those obtained in the 1987 test work.

Elevated levels of arsenic were noted in both concentrates (approximately 0.6% As in the lead concentrate and 1.6% As in the zinc rougher/scavenger concentrate). These elevated arsenic levels may be reduced by more aggressive depression of arsenopyrite during flotation, however, the silver-bearing mineral tennantite, $(Cu,Fe)_{12}As_4S_{13}$ contains significant arsenic that will report with the silver. The additional metallurgical testing, including characterizing and marketing of the concentrates from South Mountain, will address the potential arsenic, cadmium, and iron levels in the different concentrates produced.

Gravity concentration work to date has been somewhat inconclusive with relatively low metal recoveries into low grade concentrates. FL Smidth concluded that the selective flotation flow sheet would be much simpler to operate, and any further testing should be focused in this area. Additional selective flotation testing should be directed toward optimizing the zinc flotation circuit with emphasis on pyrrhotite and pyrite rejection. Sphalerite reagent optimization is required, and some concentrate cleaning work is recommended. The removal of pyrrhotite from the final zinc concentrate by low intensity magnetic separation may be warranted. HRC agrees with these conclusions and recommendations. In addition, the copper in the lead concentrate may not be a payable item as some smelters will pay for as much as 40% of contained copper while others considered copper deleterious. In future metallurgical work, BMET plans to explore the possibility of creating a copper concentrate, as was suggested by a major smelting firm.

14.   MINERAL RESOURCE ESTIMATE

Randal K. Martin, a Resource Geologist with HRC, is responsible for the mineral resource estimate presented herein. Mr. Martin is a Qualified Person as defined by NI 43-101 and is independent of BMET, the vendor, and the property. HRC estimated the mineral resource for the Project based on drillhole and channel sampling data constrained by geologic boundaries with an Ordinary Kriging ("OK") algorithm. MicroModel® 9.0 ("MicroModel") software was used to complete the resource estimate. The metals of interest at the Project are zinc, silver, gold, copper, and lead. All units are Imperial, and all costs are reported in US Dollars unless otherwise specified.

The mineral resource estimate reported here was prepared in a manner consistent with the Committee of Mineral Reserves International Reporting Standards ("CRIRSCO"), of which both the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") and Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the "JORC Code") are members. The mineral resources are classified as Measured, Indicated and Inferred in accordance with "CIM Definition Standards for Mineral Resources and Mineral Reserves", prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council on May 10, 2014. Classification of the resources reflects the relative confidence of the grade estimates.

14.1   Methodology

The geologic model for the Project was constructed using drillhole and channel sample lithology within the database, in conjunction with an underground geologic map (Figure 14-1), drillhole cross sections, and interpretations by THMG staff. Leapfrog Geo® software version 4.2.3 was used to create the model.

The overall geologic model for the Project is constrained within 500 ft for drillholes and channel samples within the area of mineralization, and includes five discrete geological units:

- An overburden boundary with a minimum depth of 5ft below the topographic surface;
- Six west-southwest trending post mineralization dikes steeply dipping north-northwest. These dikes separate the model into seven structural domains;
- The Laxey marble is the host rock for mineralization. The unit strikes northwest and dips 55 degrees to the south west. The Laxey marble extends to the overburden contact, except in the southeast portion where it is terminated by a slide block;
- Footwall schist; and
- Hanging wall schist.

Figure 14-2 shows a plan view of the geologic model without the overburden surface and Figure 14-3 shows a northwest to southeast long section of the geologic model.
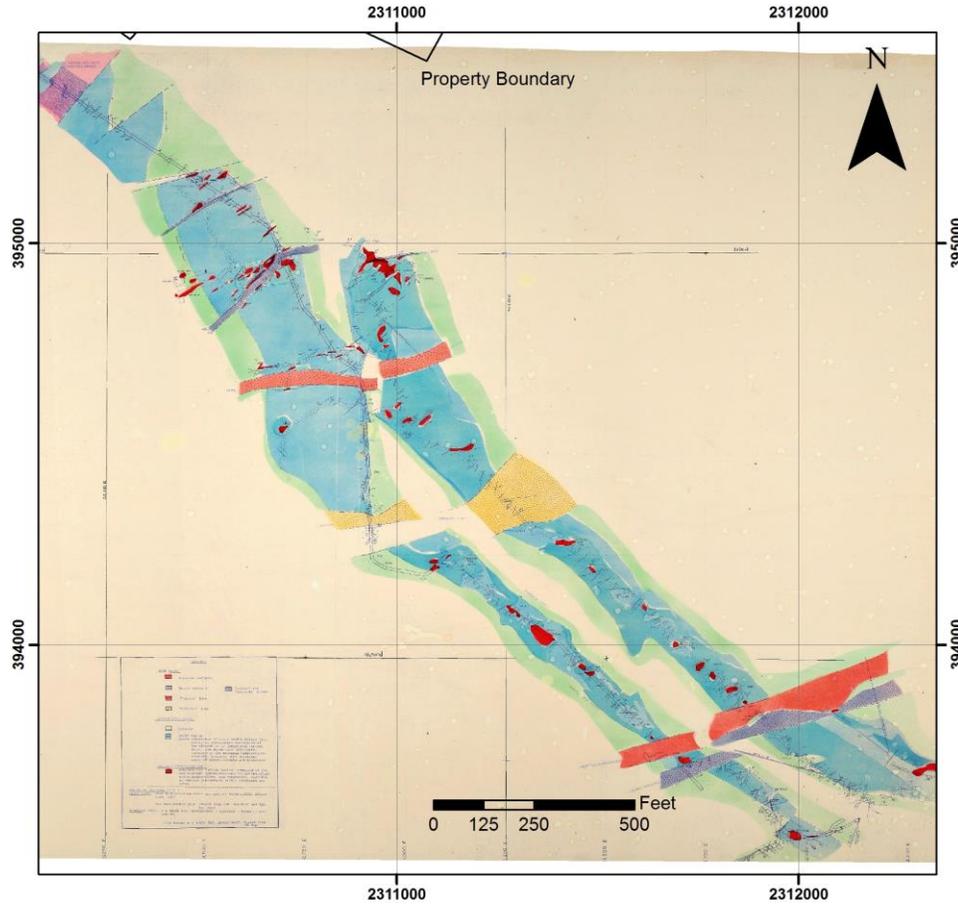
Figure 14-1 Underground Geologic Map used to Inform the Geologic Model
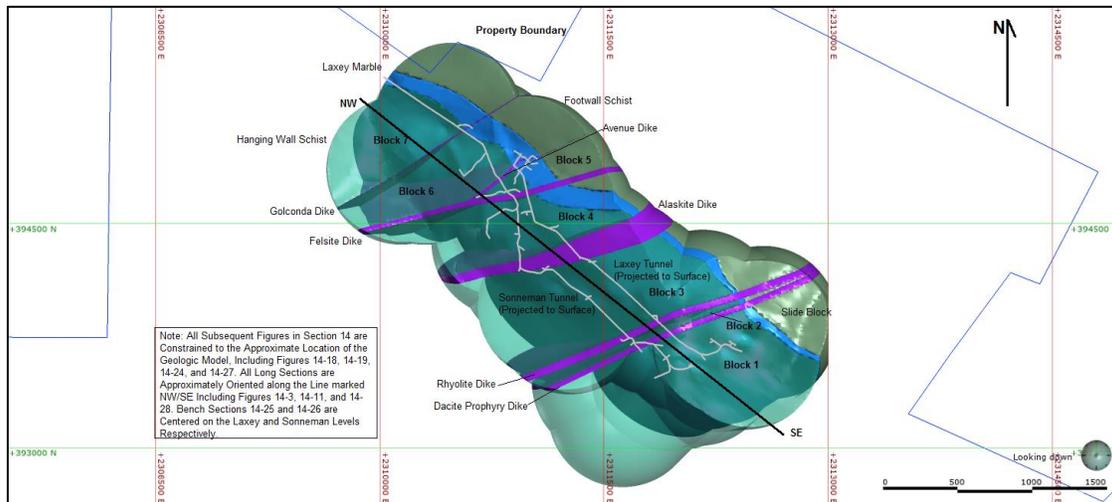
Figure 14-2 Plan View of the Geologic Model without the Overburden Surface.
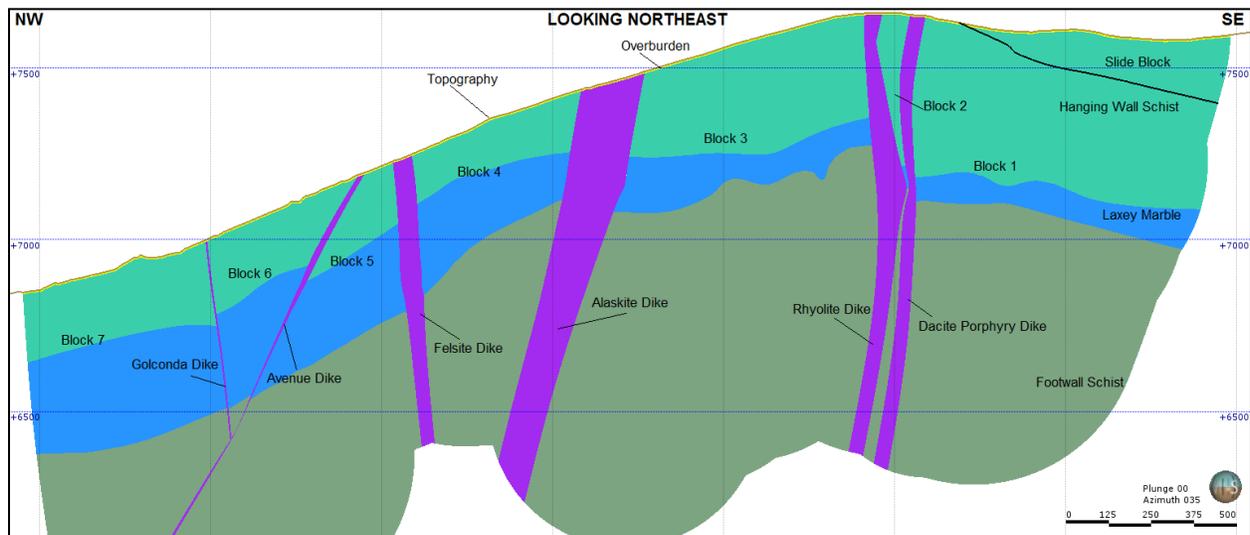
Figure 14-3 Long Section View of the Geologic Model

14.2   Estimation Domains

A statistical examination of silver (Figure 14-4) and zinc (Figure 14-5) grades within the geologic model confirms ore zones are confined to the Laxey marble domains. However, the Laxey marble alone is not sufficient for grade estimation. Lithologic logs show high grade mineralization within the Laxey marble is within massive sulfide intrusions. Some low grade mineralization is confined within skarn intrusions and the marble is waste (Figures 14-6, and 14-7). Since lithologic logs were incomplete for all samples, a zinc silver equivalent ("ZnAgEq") was created to more accurately define the massive sulfide and skarn domains. Cut-offs for ZnAgEq were adjusted until mean ZnAgEq grades (Figure 14-8) were similar to the mean grades seen in the lithologies (Figures 14-9). ZnAgEq grades greater than 4.0% were classified as massive sulfides, grades between 4.0% and 0.01% were classified as skarn, and grades below 0.01% were classified as marble. The ZnAgEq categories were used to model the massive sulfide and skarn domains within each Laxey marble domain. Polylines were used connect massive sulfide and skarn domains between the Laxey and Sonneman levels where appropriate. Skarns were extended 300ft above the Laxey level, and 300ft below the Sonneman level. Massive sulfides were extended 150ft above the Laxey level, and 150ft below the Sonneman level. The resulting statistics for ZnAgEq when back marked to the estimation domains (Figure 14-10) are similar to those seen in Figure 14-8.

In total, twenty estimation domains were created for the Project. A long section view of the modeled estimation domains is presented in Figure 14-11. These estimation domains represent the maximum extent at which HRC is confident in estimating mineral resources with the current data available. In reality, there is geologic and anecdotal evidence to suggest that the skarn and massive sulfide mineralization continues to the surface and down dip. The deposit remains open along the strike of the Laxey marble and down dip as shown if Figure 7-4. The current model also suggests that thickness and width of the skarn and associated massive sulfide mineralization along strike increase with depth.
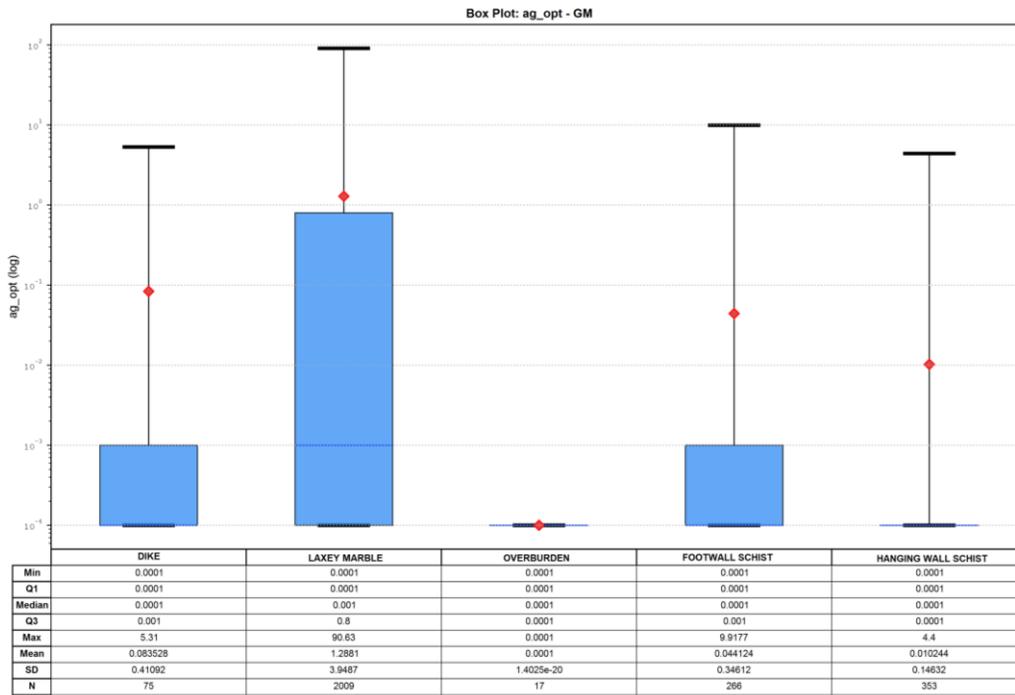
Figure 14-4 Box Plots of Sample Silver Grades and Statistics by Modeled Geologic Unit
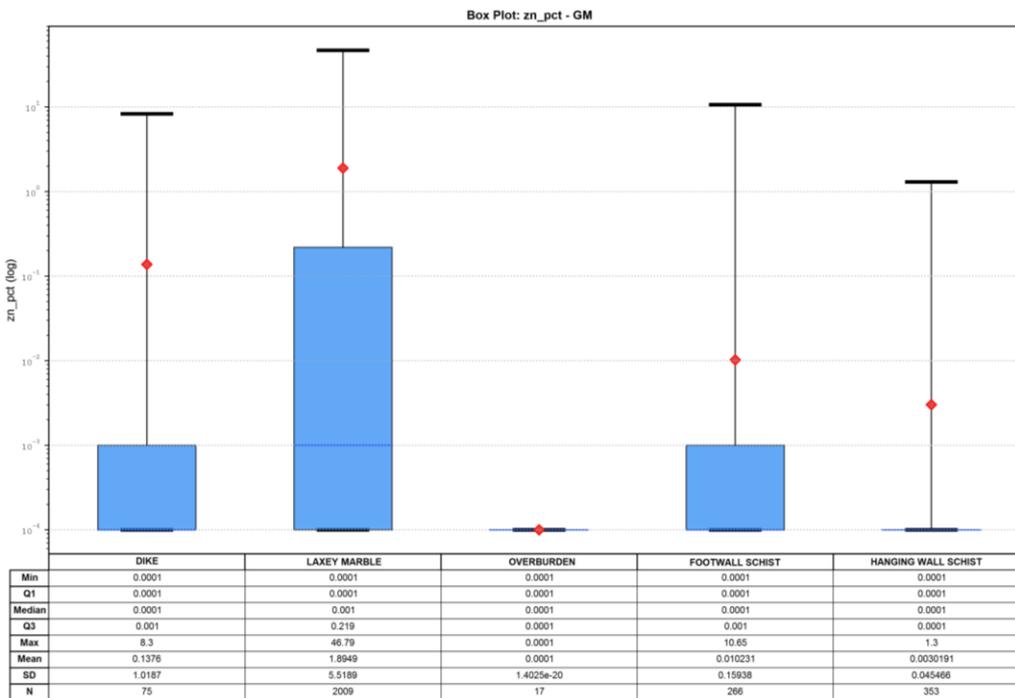
Figure 14-5 Box Plots of Sample Zinc Grades and Statistics by Modeled Geologic Unit

Box Plot: ag_opt - GroupLith

	Marble	Skarn	Sulfides
Min	0.0001	0.0001	0.0001
Q1	0.0001	0.0001	1.57
Median	0.0001	0.0001	3.4129
Q3	0.0001	0.18	6.7674
Max	25.8	90.63	65.884
Mean	0.11606	0.5554	5.4097
SD	0.85468	2.0203	6.606
N	579	937	298
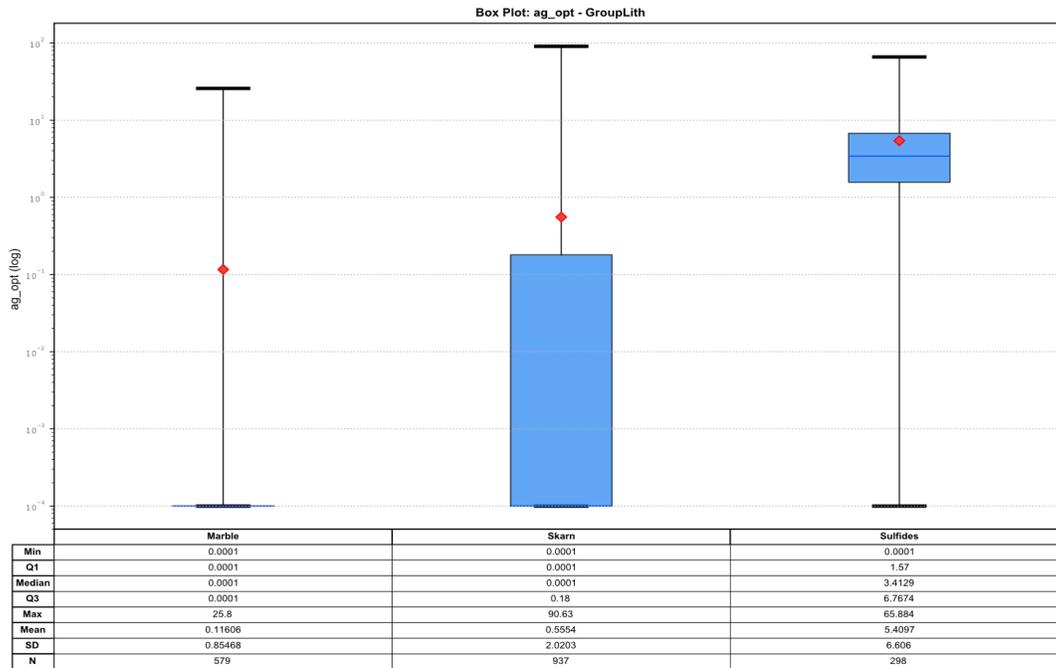
Figure 14-6 Box Plots of Sample Silver Grades and Statistics by Grouped Logged Lithologies

Box Plot: zn_pct - GroupLith

	Marble	Skarn	Sulfides
Min	0.0001	0.0001	0.0001
Q1	0.0001	0.0001	2.2
Median	0.0001	0.0001	8.99
Q3	0.0001	0.001	17.93
Max	14	38.43	46.79
Mean	0.075414	0.53547	11.383
SD	0.61731	2.2446	10.439
N	579	937	298
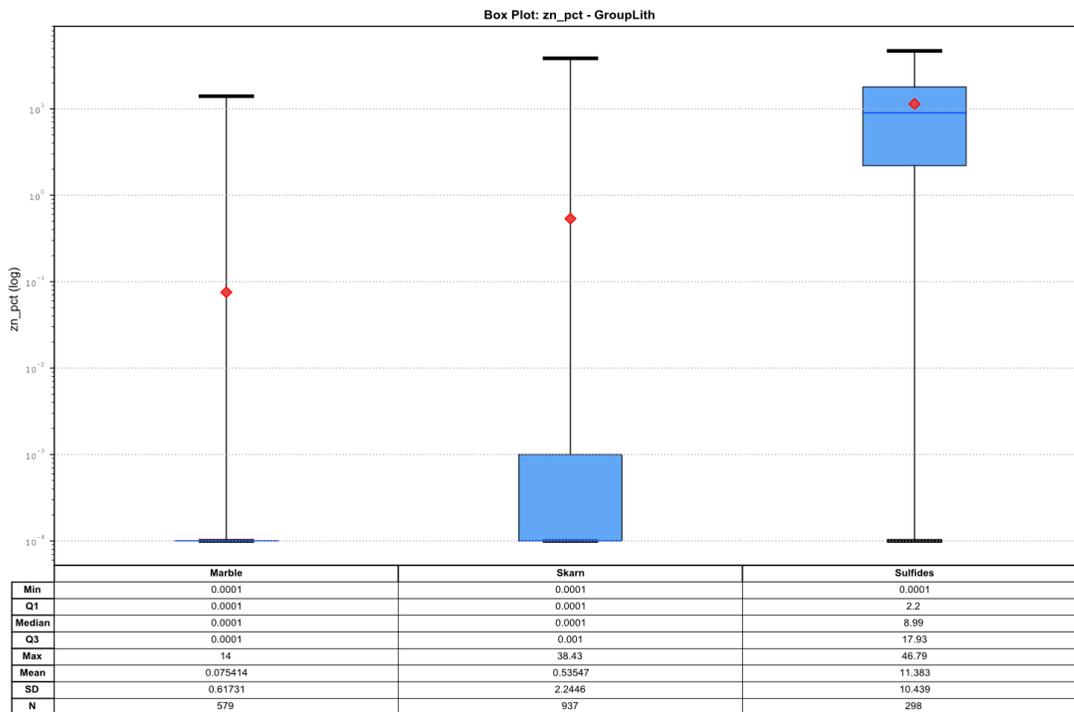
Figure 14-7 Box Plots of Sample Zinc Grades and Statistics by Grouped Logged Lithologies
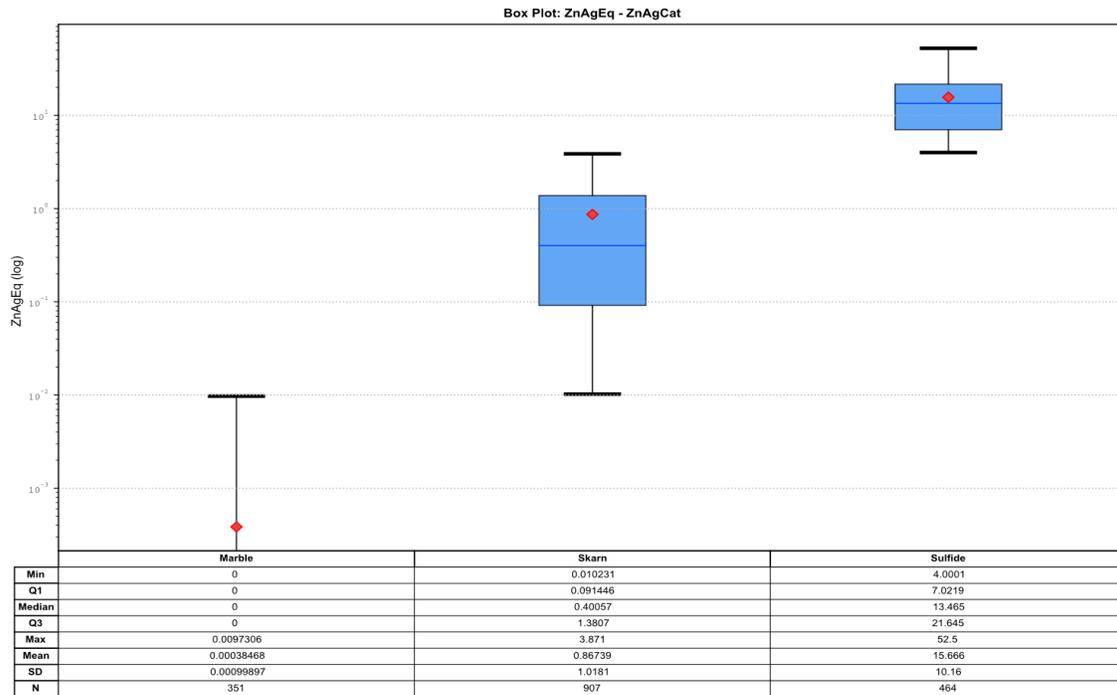
Figure 14-8 Box Plots of Sample ZnAgEq Grades and Statistics by ZnAgEq Categorization
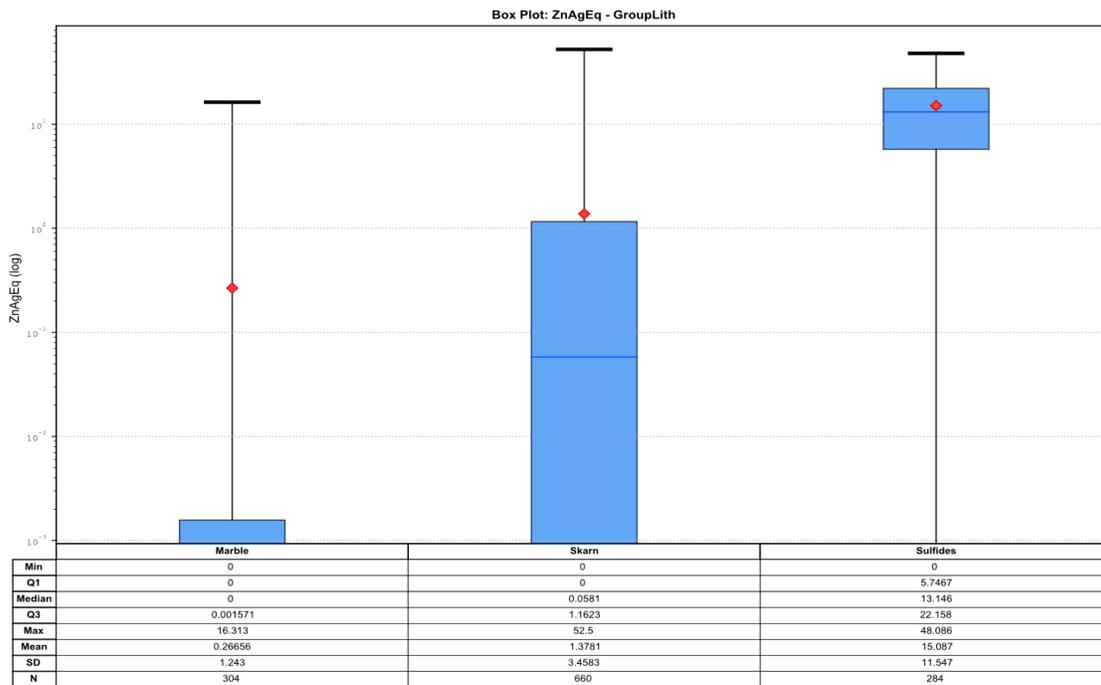
Figure 14-9 Box Plots of Sample ZnAgEq Grades and Statistics by Grouped Logged Lithologies

	ZnAgCat: Marble	ZnAgCat: Skarn	ZnAgCat: Sulfide
Min	0	0	0.16761
Q1	0	0.1571	7.4315
Median	0	0.68683	13.955
Q3	0.001571	1.8568	22.448
Max	18.786	52.5	49.557
Mean	0.090436	1.3737	16.119
SD	0.79993	2.4735	10.293
N	245	803	430
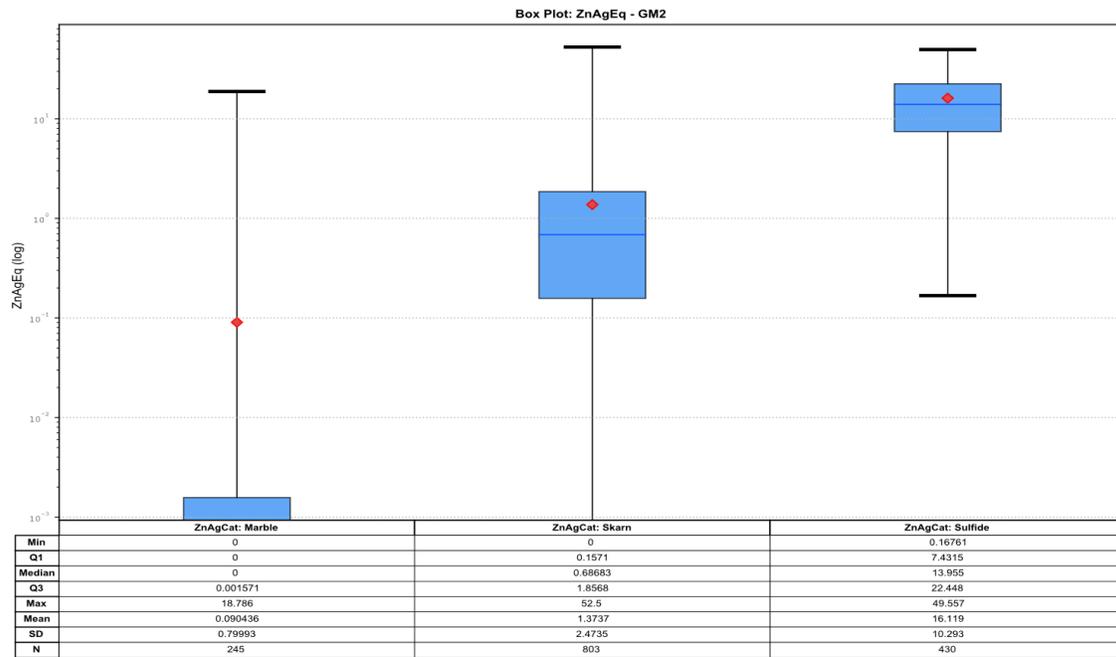
Figure 14-10 Box Plots of Sample ZnAgEq Grades and Statistics by Modeled Estimation Domains
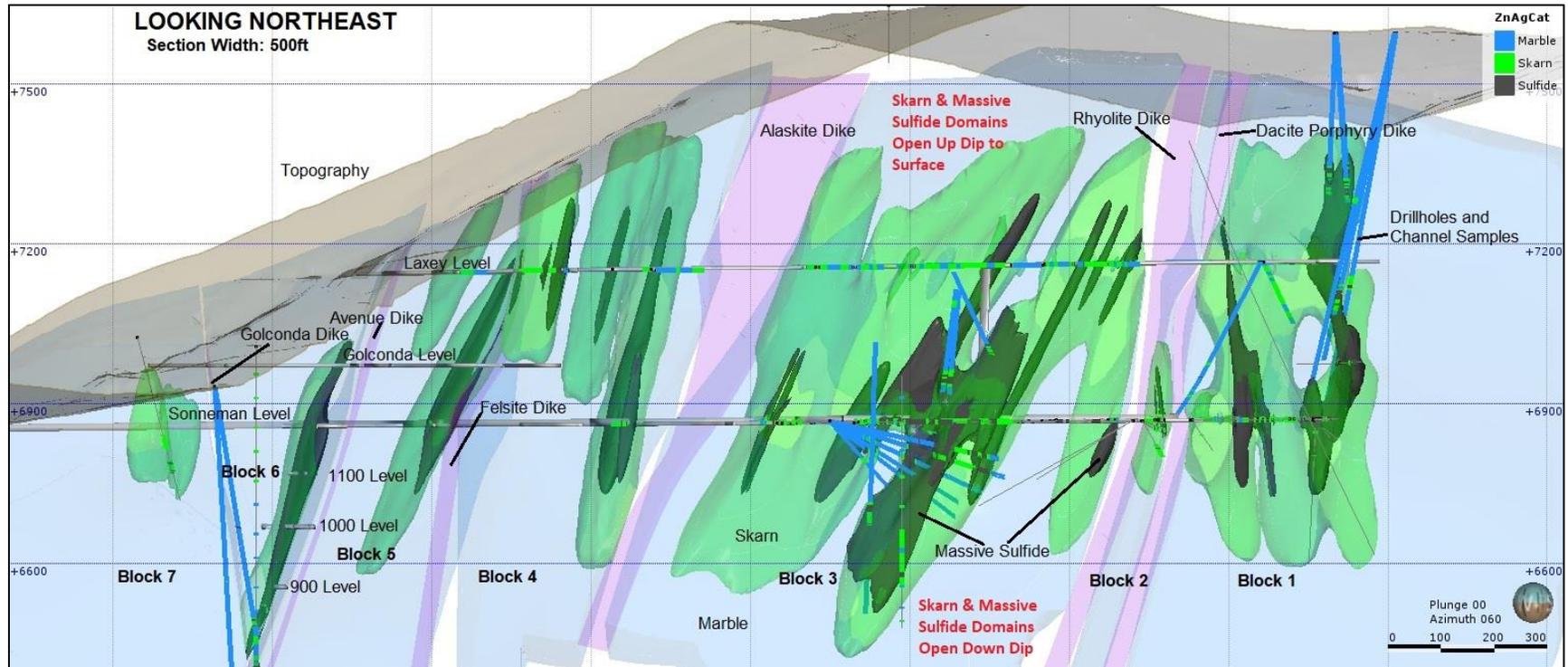
Note: The deposit remains open along strike and down dip in the Laxey marble as shown in Figure 7-4.

Figure 14-11 Long Section View of Modeled Estimation Domains.

14.3   Block Model Setup

A block model was created in MicroModel (Table 14-1). The block model was oriented along strike of the Laxey marble and completely encompasses the geologic model and estimation domains. A block size of 10 ft x 10 ft x 20 ft was selected to accurately convert the wireframe solid volumes to blocks and maintain a reasonable mining unit size. Table 14-2 summarizes how the 20 estimation domains were coded into the block model. Note there was no appreciable sulfide material in Block 7, and as such, there is no domain code 73.

Table 14-1 Block Model Parameters

Axis	Origin (Lower Left Corner)	Block Size (ft)	Number of Blocks	Boundary Size (ft)
X	2312100	10	240	2400
Y	392100	10	390	3900
Z	6000	20	92	1840
Rotation: 305 Degrees Around Z axis				

Table 14-2 Block Model Domain Codes

Model Domain Code	Lithology
11	Block 1 Marble
21	Block 2 Marble
31	Block 3 Marble
41	Block 4 Marble
51	Block 5 Marble
61	Block 6 Marble
71	Block 7 Marble
12	Block 1 Skarn
22	Block 2 Skarn
32	Block 3 Skarn
42	Block 4 Skarn
52	Block 5 Skarn
62	Block 6 Skarn
72	Block 7 Skarn
13	Block 1 Sulfide
23	Block 2 Sulfide
33	Block 3 Sulfide
43	Block 4 Sulfide
53	Block 5 Sulfide
63	Block 6 Sulfide

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14.4   Modifications to Database Prior to Mineral Resource Estimation

Missing intervals, un-assayed intervals, and zero values were replaced with 0.0001 for all metals of interest.

14.5   Compositing and Capping

Drillhole and channel sample data were composited to 10ft intervals by estimation domain. Samples smaller than 5ft were distributed equally. The composites were then used for grade capping analysis and variography for each domain.

Grade capping is the practice of replacing any statistical outliers with a maximum value from the assumed sampled distribution. This is done statistically to better understand the true mean of the sample population. The estimation of highly skewed grade distribution can be sensitive to the presence of even a few extreme values. HRC utilized a log scale Cumulative Frequency Plot ("CFP") of the composited assay data for each element to identify the presence of statistical outliers (Figure 14-12) in each estimation domain. Table 14-3 summarizes cap values used for each metal, in each domain. The final dataset for grade estimation in the block model consists of composites capped as presented in Table 14-3. Table 14-4 shows the descriptive statistics for capped composite values for all estimation domains. Tables 14-5 through 14-9 present descriptive statistics of the capped composite data by for each metal of interest by estimation domain.

Table 14-3 Capping Values by Domain and Metal

Capping Values by Domain and Metal									
Domain	AuCap	Au	AgCap	Ag	CuCap	Cu	PbCap	Pb	ZnCap	Zn
Code	opt	Max	opt	Max	pct	Max	pct	Max	pct	Max
11	0.025	0.098	1.27	2.425	none	1.200	none	0.002	none	1.787
12	0.06	0.290	6	77.770	none	3.130	0.94	19.270	4.57	12.480
13	0.6	1.000	36.29	60.410	none	7.330	none	15.140	none	19.620
21	none	0.000	none	0.000	none	0.000	none	0.000	none	0.000
22	none	0.007	3.1	4.220	2.41	4.920	0.09	0.131	2.31	3.925
23	none	0.049	none	6.110	none	3.600	none	0.080	none	3.170
31	0.014	0.170	0.11	1.640	0.09	0.160	1.51	0.370	0.05	17.850
32	none	0.190	6.08	62.710	1.9	2.400	0.65	2.490	8	13.750
33	none	0.650	none	30.187	4.56	23.000	3	15.360	31	44.430
41	none	0.019	1.39	2.549	0.14	0.561	none	0.104	0.78	1.330
42	none	0.017	1.88	2.800	0.18	0.350	0.04	0.343	1.8	2.767
43	none	0.040	7.51	9.300	1.33	2.350	none	1.460	none	17.770
51	none	0.008	0.05	2.040	0.006	0.080	none	0.905	0.13	1.568
52	none	0.025	0.72	2.900	none	0.031	none	0.008	none	1.900
53	none	0.020	5.24	15.700	none	1.420	none	6.280	none	19.340
61	none	0.000	none	0.001	none	0.000	none	0.009	none	0.003
62	none	0.002	none	2.280	none	0.076	none	0.110	none	3.583
63	none	0.036	11.26	25.320	none	0.912	0.69	2.095	none	26.160
71	none	0.000	none	0.294	none	0.000	none	0.000	none	0.000
72	none	0.036	1.08	2.508	none	0.062	none	0.636	none	3.168
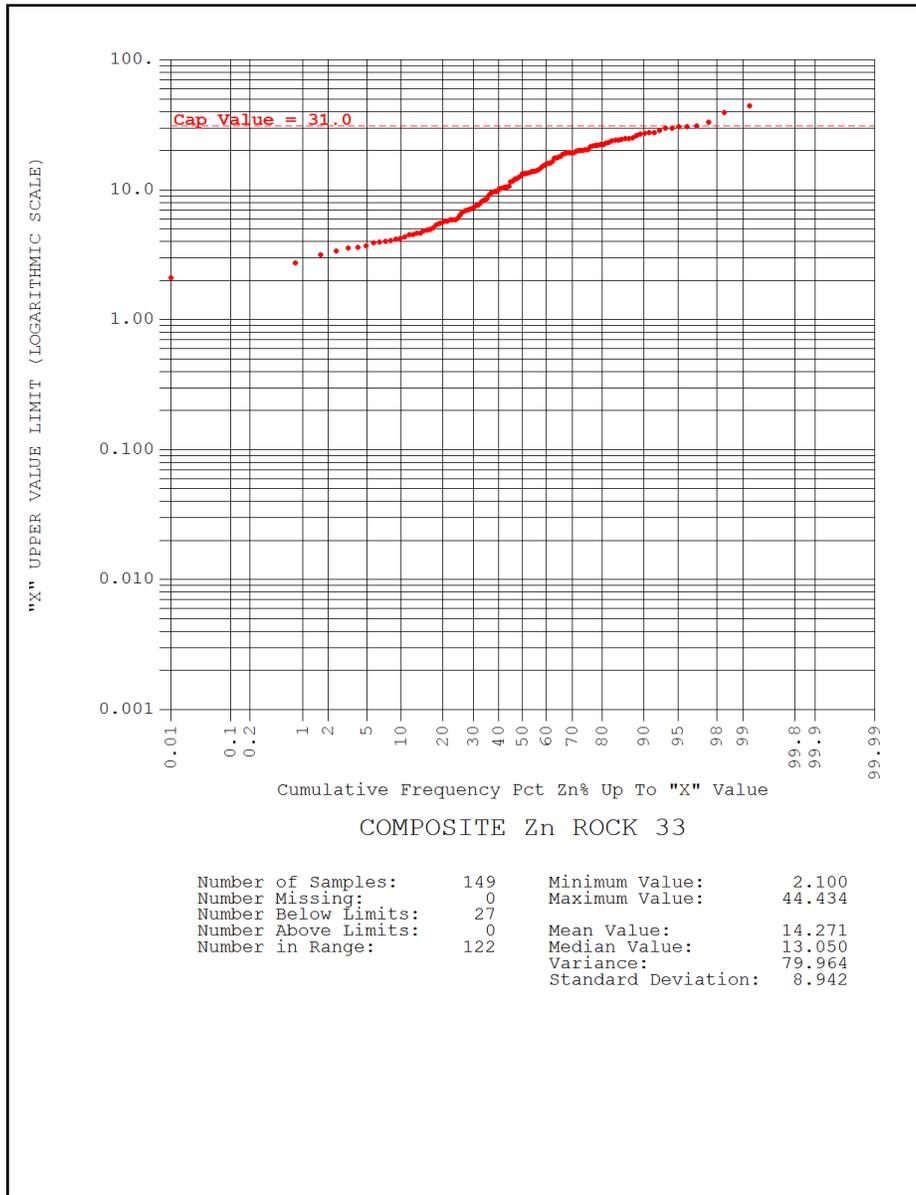
Figure 14-12 Log Cumulative Frequency Plot of Composite Data in Domain 33, Block 3 Massive Sulfide.

Table 14-4 Descriptive Statistics for Capped Composites by All Estimation Domains

Metal	Count	Min	Max	Mean	Std Dev	C.V.
Zn	1360	0.000	31.000	2.120	5.340	2.520
Ag	1360	0.000	36.290	1.476	3.600	2.440
Au	1360	0.000	0.650	0.018	0.060	3.370
Pb	1360	0.000	15.140	0.224	1.070	4.770
Cu	1360	0.000	7.333	0.255	0.650	2.550

Table 14-5 Descriptive Statistics for Capped Zinc Composites by Estimation Domains

Zn Capped Composites						
Domain	Count	Min	Max	Mean	Std Dev	C.V.
11	80	0.000	1.787	0.071	0.280	3.930
21	4	0.000	0.000	0.000	0.000	0.000
31	265	0.000	0.050	0.001	0.010	5.720
41	29	0.001	0.780	0.144	0.280	1.910
51	18	0.001	0.130	0.019	0.040	2.190
61	38	0.000	0.003	0.000	0.000	1.830
71	6	0.000	0.000	0.000	0.000	0.000
All Marble	440	0.000	1.787	0.024	0.140	6.050
12	240	0.000	4.570	0.301	0.720	2.400
22	58	0.000	2.310	0.246	0.550	2.230
32	287	0.000	8.000	0.601	1.260	2.090
42	42	0.001	1.800	0.470	0.590	1.260
52	11	0.001	1.900	0.840	0.710	0.850
62	6	0.560	3.583	1.994	1.350	0.680
72	8	0.000	3.168	0.728	1.060	1.460
All Skarn	652	0.000	8.000	0.469	1.010	2.150
13	91	0.000	19.622	6.548	6.580	1.000
23	5	0.000	3.170	1.485	1.190	0.800
33	149	0.000	31.000	11.525	9.370	0.810
43	10	2.100	17.766	8.116	5.050	0.620
53	8	6.100	19.343	10.628	4.660	0.440
63	5	9.010	26.160	16.061	7.040	0.440
All Sulfide	268	0.000	31.000	9.578	8.530	0.890

Table 14-6 Descriptive Statistics for Capped Silver Composites by Estimation Domains

Ag Capped Composites						
Domain	Count	Min	Max	Mean	Std Dev	C.V.
11	80	0.000	1.270	0.112	0.300	2.720
21	4	0.000	0.000	0.000	0.000	0.000
31	265	0.000	0.110	0.002	0.010	6.600
41	29	0.001	1.390	0.248	0.400	1.610
51	18	0.000	0.050	0.012	0.020	1.590
61	38	0.000	0.001	0.000	0.000	1.430
71	6	0.000	0.294	0.049	0.120	2.440
All Marble	440	0.000	1.390	0.039	0.180	4.590
12	240	0.000	6.000	1.024	1.350	1.320
22	58	0.000	3.100	0.525	1.010	1.930
32	287	0.000	6.080	0.589	0.960	1.620
42	42	0.001	1.880	0.393	0.490	1.240
52	11	0.001	0.720	0.266	0.300	1.140
62	6	0.324	2.281	1.132	0.800	0.710
72	8	0.000	1.080	0.501	0.500	1.000
All Skarn	652	0.000	6.080	0.730	1.110	1.530
13	91	0.000	36.290	8.280	8.280	1.000
23	5	0.000	6.110	4.317	2.480	0.580
33	149	0.000	30.187	4.073	4.830	1.190
43	10	1.400	7.510	5.389	2.350	0.440
53	8	0.600	5.240	3.455	2.000	0.580
63	5	8.911	11.260	10.215	1.100	0.110
All Sulfide	268	0.000	36.290	5.651	6.380	1.130

Table 14-7 Descriptive Statistics for Capped Gold Composites by Estimation Domains

Au Capped Composites						
Domain	**Count**	**Min**	**Max**	**Mean**	**Std Dev**	**C.V.**
11	80	0.000	0.025	0.002	0.010	2.650
21	4	0.000	0.000	0.000	0.000	0.000
31	265	0.000	0.014	0.001	0.000	3.200
41	29	0.001	0.019	0.004	0.000	0.980
51	18	0.000	0.008	0.002	0.000	0.930
61	38	0.000	0.000	0.000	0.000	0.160
71	6	0.000	0.000	0.000	0.000	0.000
All Marble	440	0.000	0.025	0.001	0.000	2.890
12	240	0.000	0.060	0.004	0.010	2.530
22	58	0.000	0.007	0.000	0.000	2.460
32	287	0.000	0.190	0.008	0.030	3.450
42	42	0.000	0.017	0.004	0.000	1.220
52	11	0.001	0.025	0.006	0.010	1.140
62	6	0.001	0.002	0.002	0.000	0.230
72	8	0.000	0.036	0.014	0.020	1.140
All Skarn	652	0.000	0.190	0.005	0.020	3.480
13	91	0.000	0.600	0.107	0.150	1.370
23	5	0.000	0.049	0.015	0.020	1.400
33	149	0.000	0.650	0.072	0.100	1.440
43	10	0.005	0.040	0.016	0.010	0.790
53	8	0.001	0.020	0.009	0.010	0.860
63	5	0.007	0.036	0.017	0.010	0.640
All Sulfide	268	0.000	0.650	0.078	0.120	1.520

Table 14-8 Descriptive Statistics for Capped Lead Composites by Estimation Domains

Pb Capped Composites						
Domain	Count	Min	Max	Mean	Std Dev	C.V.
11	80	0.000	0.002	0.000	0.000	0.960
21	4	0.000	0.000	0.000	0.000	0.000
31	265	0.000	0.250	0.002	0.020	9.300
41	29	0.001	0.104	0.005	0.020	4.200
51	18	0.000	0.905	0.052	0.210	4.130
61	38	0.000	0.001	0.000	0.000	1.180
71	6	0.000	0.000	0.000	0.000	0.000
All Marble	440	0.000	0.905	0.004	0.050	11.860
12	240	0.000	0.940	0.029	0.100	3.570
22	58	0.000	0.090	0.004	0.020	4.180
32	287	0.000	0.650	0.030	0.080	2.850
42	42	0.001	0.040	0.005	0.010	2.050
52	11	0.001	0.008	0.002	0.000	1.140
62	6	0.013	0.110	0.057	0.040	0.680
72	8	0.000	0.636	0.159	0.220	1.390
All Skarn	652	0.000	0.940	0.027	0.090	3.310
13	91	0.000	15.140	2.107	3.360	1.590
23	5	0.000	0.080	0.017	0.040	2.130
33	149	0.000	3.000	0.472	0.700	1.480
43	10	0.001	1.460	0.464	0.510	1.100
53	8	0.001	6.280	2.026	2.770	1.370
63	5	0.273	0.690	0.481	0.190	0.400
All Sulfide	268	0.000	15.140	1.065	2.220	2.080

Table 14-9 Descriptive Statistics for Capped Copper Composites by Estimation Domains

Cu Capped Composites						
Domain	Count	Min	Max	Mean	Std Dev	C.V.
11	80	0.000	1.200	0.076	0.250	3.280
21	4	0.000	0.000	0.000	0.000	0.000
31	265	0.000	0.090	0.004	0.010	3.330
41	29	0.001	0.140	0.039	0.040	1.020
51	18	0.000	0.006	0.002	0.000	0.920
61	38	0.000	0.000	0.000	0.000	0.200
71	6	0.000	0.000	0.000	0.000	0.000
All Marble	440	0.000	1.200	0.019	0.110	5.880
12	240	0.000	3.130	0.268	0.490	1.830
22	58	0.000	2.410	0.464	0.830	1.790
32	287	0.000	1.900	0.150	0.320	2.120
42	42	0.001	0.180	0.042	0.040	1.040
52	11	0.001	0.031	0.011	0.010	1.080
62	6	0.020	0.076	0.036	0.020	0.590
72	8	0.000	0.062	0.018	0.020	1.230
All Skarn	652	0.000	3.130	0.209	0.450	2.160
13	91	0.000	7.333	0.921	1.490	1.610
23	5	0.000	3.595	1.831	1.320	0.720
33	149	0.000	4.560	0.654	0.910	1.400
43	10	0.013	1.330	0.644	0.530	0.820
53	8	0.017	1.420	0.280	0.470	1.660
63	5	0.155	0.912	0.590	0.320	0.540
All Sulfide	268	0.000	7.333	0.754	1.140	1.510

14.6   Variography

A variography analysis was completed to establish spatial variability of the estimated elements for the Project. Variography establishes the appropriate contribution that any specific composite should have when estimating a block volume value within a model. This is performed by comparing the orientation and distance used in the estimation to the variability of other samples of similar relative direction and distance.

Variography was analyzed using MicroMODEL. The continuity is established by analyzing variograms oriented along strike, downdip, normal to the mineralization, and for plunge angles of 0, 15, 30, 45, 60, and 75 within the plane of mineralization. Since a majority of the composite data is within either Block 1 or Block 3, the source of composites for the variogram calculations was limited to these two zones. Furthermore,

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variogram pairings were not allowed to cross zone boundaries. The continuity of mineralization appears to be isotropic for all five elements (Ag, Zn, Au, Pb, Cu). Therefore, a single spherical variogram model was fitted to the global variogram for each element within each lithology zone. Figure 14-13 presents the results from the modeled zinc in the sulfide domain. Figure 14-14 presents the results from the modeled zinc in the skarn domain. Table 14-10 summarizes the variogram parameters used for the estimation. Variogram nugget and sill in this table have been normalized so that the nugget plus sill value equal 1.
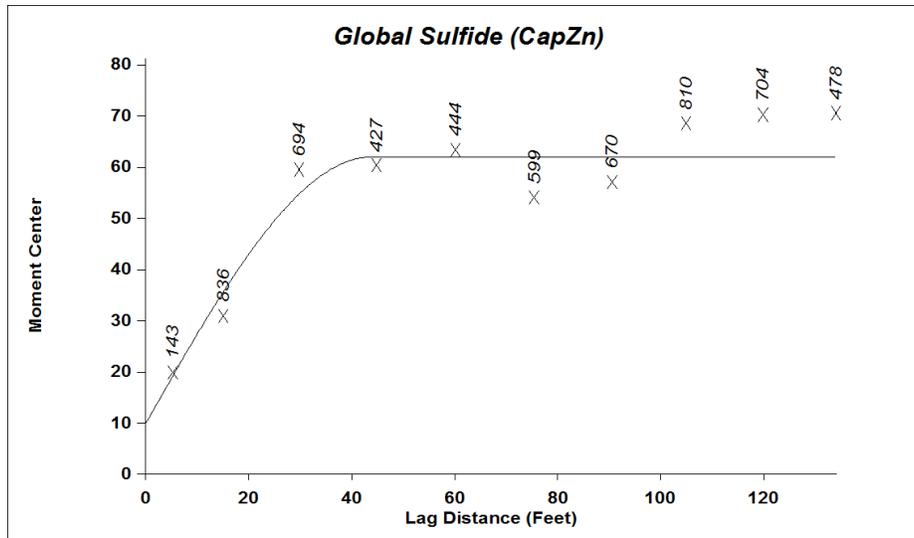
Figure 14-13 Variogram for Zinc Composites within Sulfides
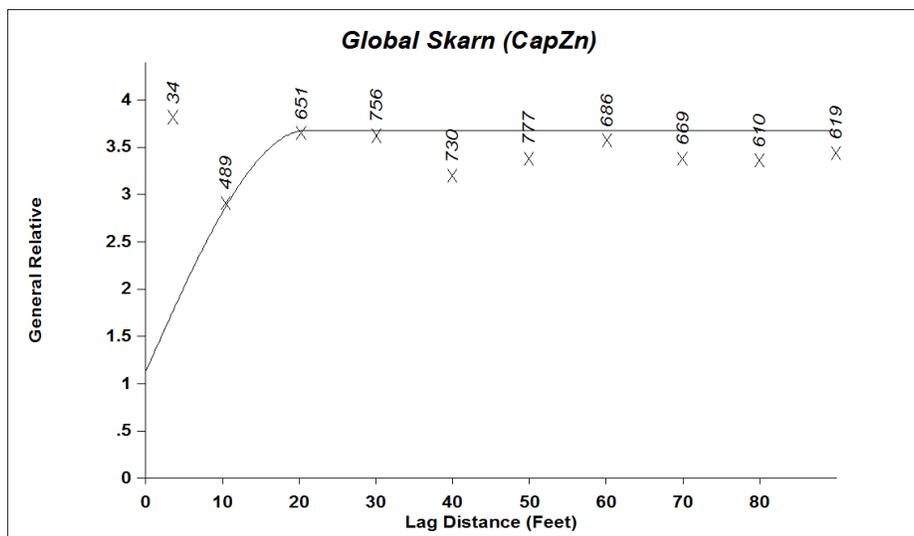
Figure 14-14 Variogram for Zinc Composites within Skarns

Table 14-10 Variogram Parameters for All Estimation Domains

Metal	Lithology	Direction	Nugget	Sill	Range(ft)	Variogram Type
ZnCap	Sulfide	Omni	0.16	0.84	44	Normal
ZnCap	Skarn	Omni	0.31	0.69	21	General Relative
ZnCap	Marble	Omni	0.02	0.98	25	General Relative
AgCap	Sulfide	Omni	0.26	0.74	35	General Relative
AgCap	Skarn	Omni	0.11	0.89	20	Normal
AgCap	Marble	Omni	0.15	0.85	25	General Relative
AuCap	Sulfide	Omni	0.11	0.89	35	Pairwise Relative
AuCap	Skarn	Omni	0.30	0.70	25	Pairwise Relative
AuCap	Marble	Omni	0.35	0.65	90	Pairwise Relative
PbCap	Sulfide	Omni	0.22	0.78	60	General Relative
PbCap	Skarn	Omni	0.29	0.71	15	General Relative
PbCap	Marble	Omni	0.13	0.88	50	Pairwise Relative
CuCap	Sulfide	Omni	0.18	0.82	30	Pairwise Relative
CuCap	Skarn	Omni	0.30	0.70	60	General Relative
CuCap	Marble	Omni	0.33	0.67	44	Pairwise Relative

14.7   Boundary Analysis

Contact plots for combined marble, skarn, and sulfide domains were used determine whether to treat the estimation domains as hard or soft boundaries. Figures 14-15 through 14-17 show the contact plots silver composites by marble, skarn, and sulfide domains respectively. The sharp transition in average grades justify estimating these domains as hard boundaries.

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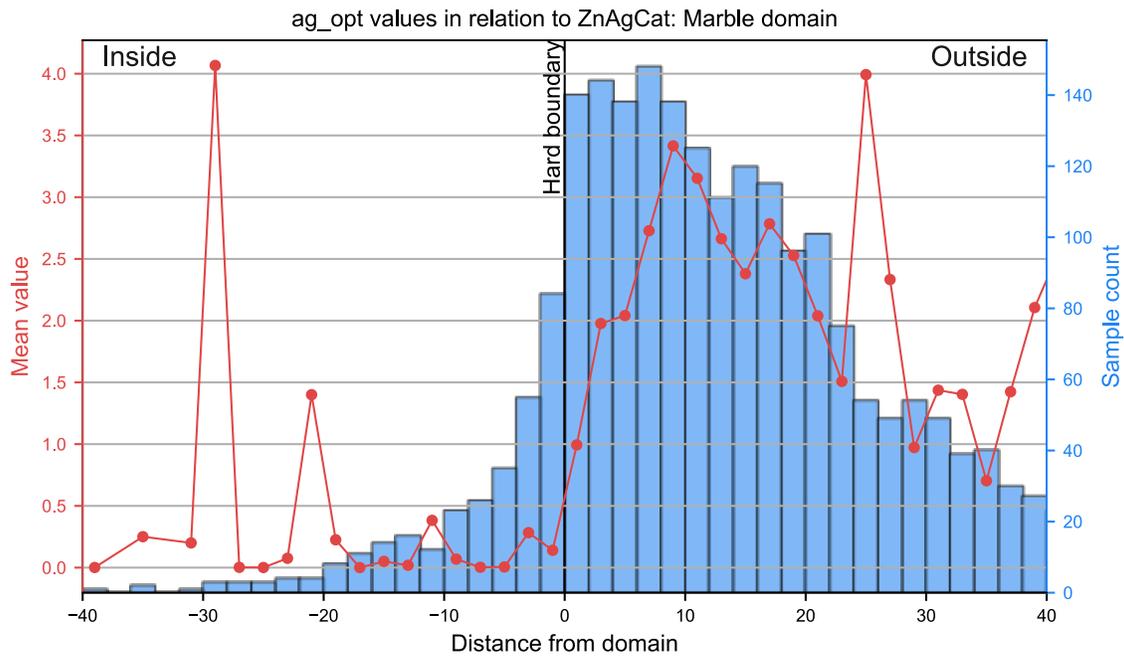
Figure 14-15 Contact Plot Showing Composite Silver Grades Across the Marble Estimation Domains
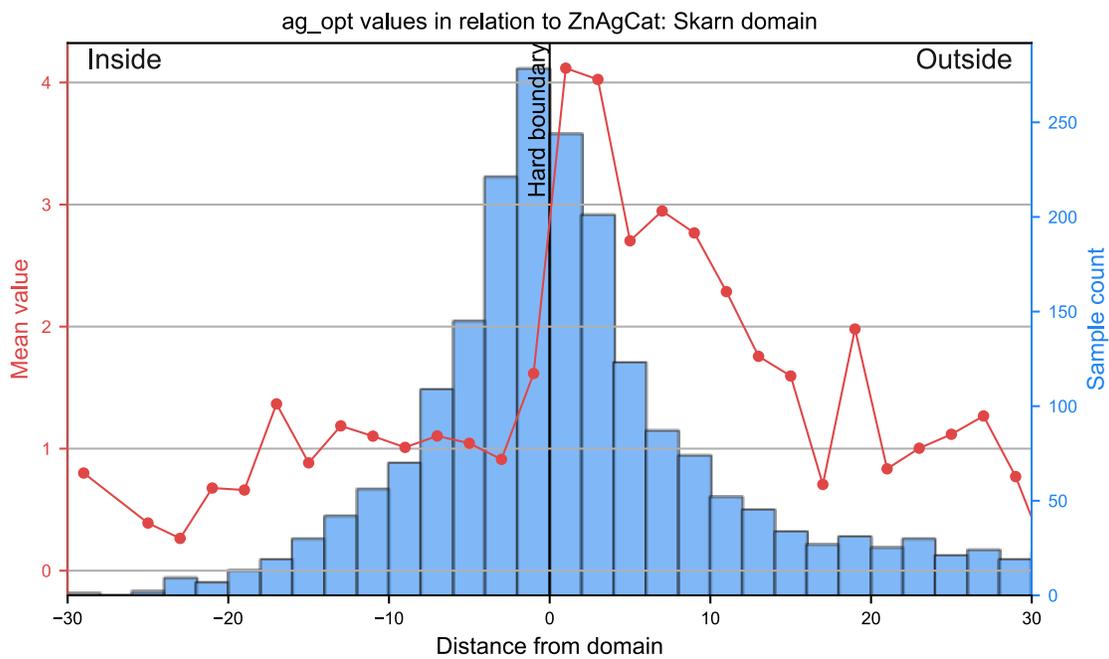
Figure 14-16 Contact Plot Showing Composite Silver Grades Across the Skarn Estimation Domains
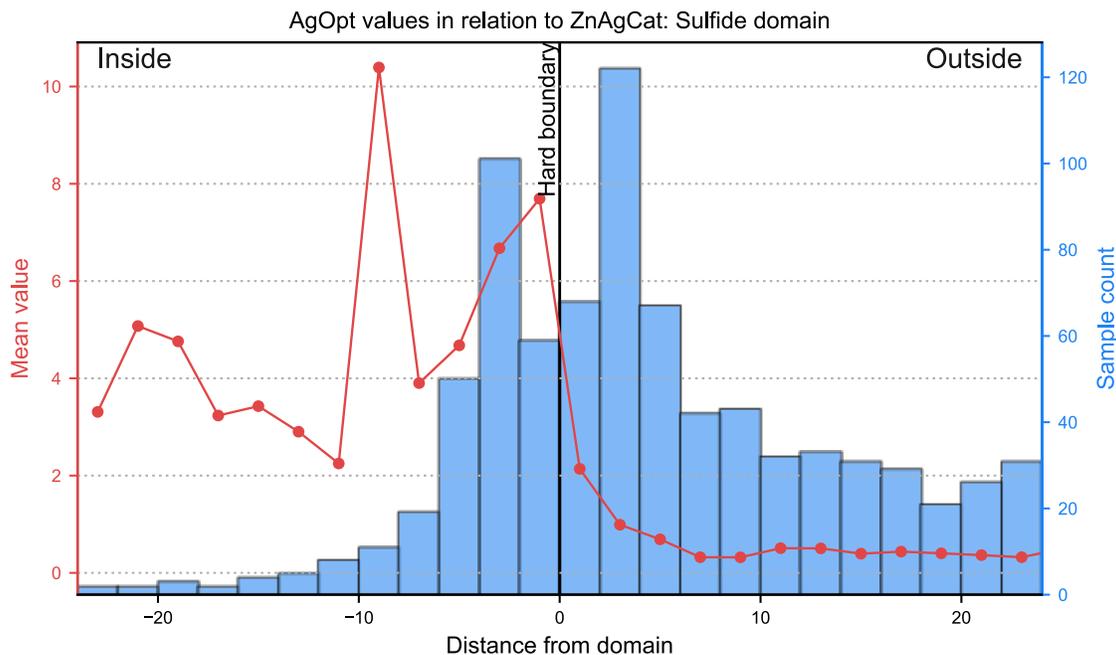
Figure 14-17 Contact Plot Showing Composite Silver Grades Across the Sulfide Estimation Domains

14.8　Estimation Methodology

The zinc, silver, gold, lead, and copper grades were estimated from 10-foot down-hole rock-unit composites using OK. Composites were coded according to the estimation domain. The search volumes were established based on practitioner's experience with similar style deposits. The estimation was completed in 1 pass with the maximum search distance set to 200 feet and using an anisotropic ratio of 5:1:1 (200ftx 40ft x 40ft). The same search volume was used to select samples for the mineral resource estimation for all domains. The MicroMODEL search method was set to a maximum of 1 informing composite from each of six search sectors, for a maximum of 6 composites used to estimate the block. Estimation parameters are provided in Table 14-11. 3D views of the search ellipse are shown in Figures 14-18 and 14-19 below. The first view is looking roughly northeast. The second is a view along strike looking roughly northwest.

Table 14-11 Summary of Estimation Parameters

Search Ellipse				Number of Composites		
Rotation	Search Distance (ft)			Max/Drillhole	Min	Max
Rot1 = 213; Rot2 = 55; Rot3 = 30	200	40	40	N/A	1	6
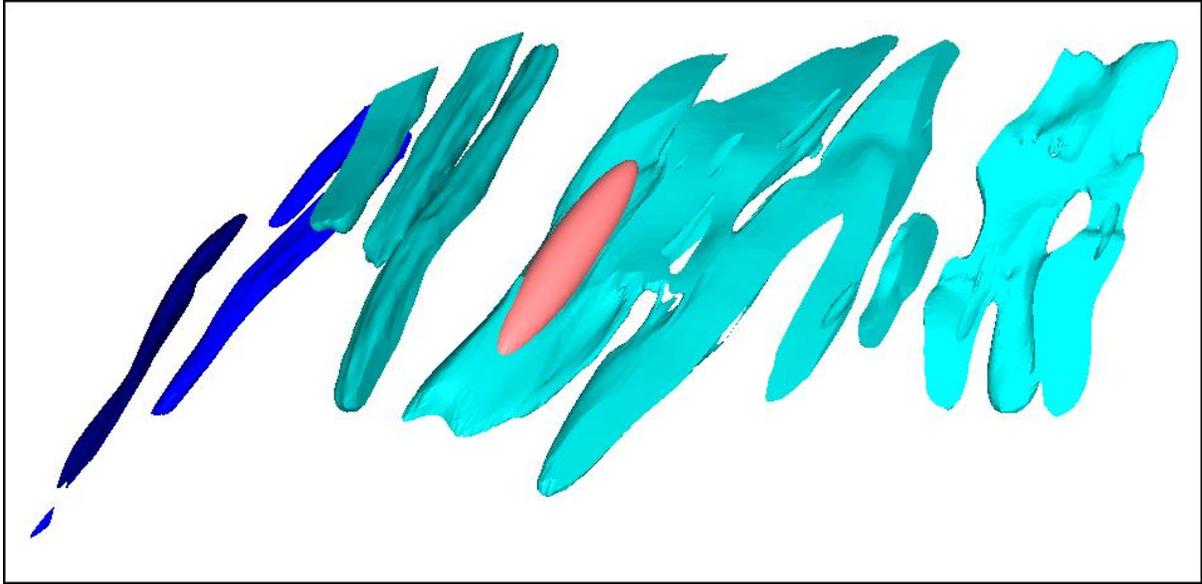
Figure 14-18 Northeast View of the Search Ellipse Overlaid on Modeled Skarns
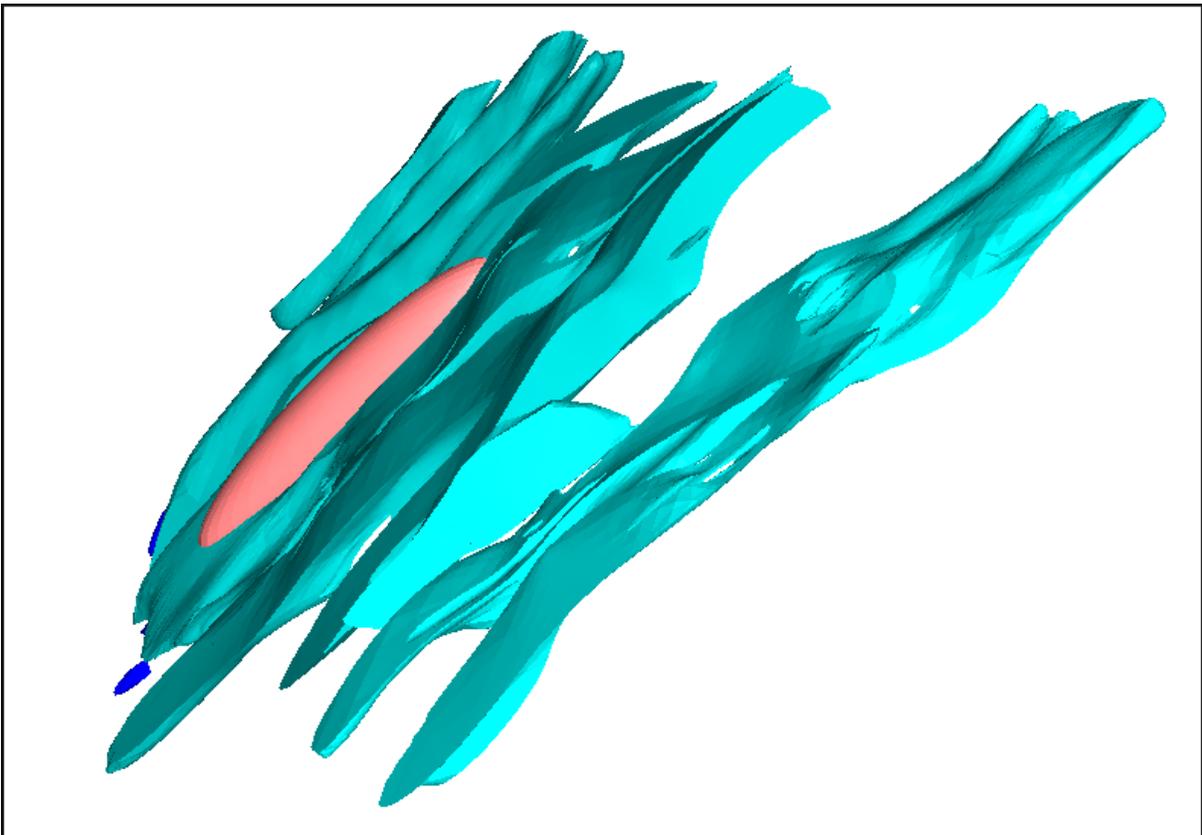
Figure 14-19 Northwest View of the Search Ellipse Overlaid on Modeled Skarns

14.9   Validation

Overall, HRC utilized several methods to validate the results of the estimation method. The combined evidence from these validation methods verifies the OK estimation model results.

14.9.1   Comparison with Inverse Distance and Nearest Neighbor Models

Inverse Distance to the 2.5 power ("ID") and Nearest Neighbor ("NN") models were run to serve as comparison with the estimated results from the OK method. Descriptive statistics for the OK method along with those for the ID, NN, and drill hole composites for the domains are shown in Table 14-12.

Table 14-12 Model Comparison Descriptive Statistics for All Estimated Domains

Zinc %						
Estimate	Count	Minimum	Maximum	Mean	Std. Dev.	CV
Capped Composites	1360	0.000	31.00	2.120	5.34	2.52
Ordinary Krige	40943	0.000	26.95	0.856	2.71	3.17
Inverse Distance 2.5	40943	0.000	28.56	0.865	2.82	3.26
Nearest Neighbor	40943	0.000	31.00	0.863	2.99	3.46
Silver opt						
Estimate	Count	Minimum	Maximum	Mean	Std. Dev.	CV
Capped Composites	1360	0.000	36.29	1.476	3.60	2.44
Ordinary Krige	40943	0.000	36.29	0.611	1.54	2.52
Inverse Distance 2.5	40943	0.000	36.29	0.602	1.55	2.57
Nearest Neighbor	40943	0.000	36.29	0.599	1.71	2.85
Gold opt						
Estimate	Count	Minimum	Maximum	Mean	Std. Dev.	CV
Capped Composites	1360	0.000	0.65	0.018	0.06	3.37
Ordinary Krige	40943	0.000	0.52	0.006	0.02	3.23
Inverse Distance 2.5	40943	0.000	0.51	0.006	0.02	3.38
Nearest Neighbor	40943	0.000	0.65	0.006	0.02	3.85
Lead %						
Estimate	Count	Minimum	Maximum	Mean	Std. Dev.	CV
Capped Composites	1360	0.000	15.14	0.224	1.07	4.77
Ordinary Krige	40943	0.000	11.52	0.074	0.47	6.30
Inverse Distance 2.5	40943	0.000	11.52	0.071	0.46	6.47
Nearest Neighbor	40943	0.000	15.14	0.070	0.51	7.28
Copper %						
Estimate	Count	Minimum	Maximum	Mean	Std. Dev.	CV
Capped Composites	1360	0.000	7.33	0.255	0.65	2.55
Ordinary Krige	40943	0.000	4.85	0.107	0.26	2.44
Inverse Distance 2.5	40943	0.000	4.83	0.107	0.27	2.53
Nearest Neighbor	40943	0.000	5.91	0.105	0.32	3.01

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The overall reduction of the maximum and standard deviation within the OK and ID models represent an appropriate amount of smoothing to account for the point to block volume variance relationship while maintaining similar means. This is confirmed in Figure 14-20, which compares the Zinc Cumulative Frequency Plots of each of the models and drillhole composites for all sulfide domains.
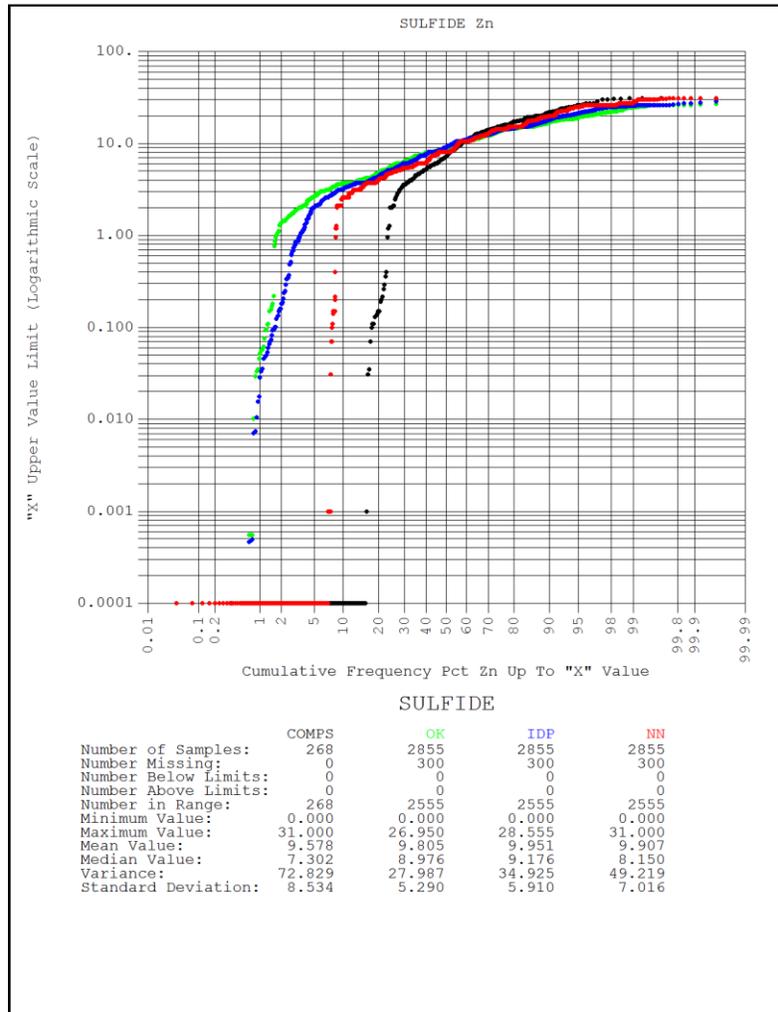
Figure 14-20 Comparative Cumulative Frequency Plot of Zinc Values for All Estimated Sulfide Domains

14.9.2   Swath Plots

Swath plots were generated to compare average estimated gold grade from the OK method to the two validation model methods (ID and NN). The results from the OK model, plus those for the validation ID model method are compared using the swath plot to the results from the NN model.

Three swath plots were generated for each element and each lithology type (N-S, E-W, Elevation in Marble, Skarn, and Sulfide). Swath plots for zinc in the sulfide domains are presented as an example of the results: Figure 14-21 shows average zinc grade looking at 215 degrees azimuth, perpendicular to the strike (model South to North); Figure 14-22 shows average zinc grade in the strike direction at 305 degrees (model West to East); Figure 14-23 shows average zinc grade from top to bottom.
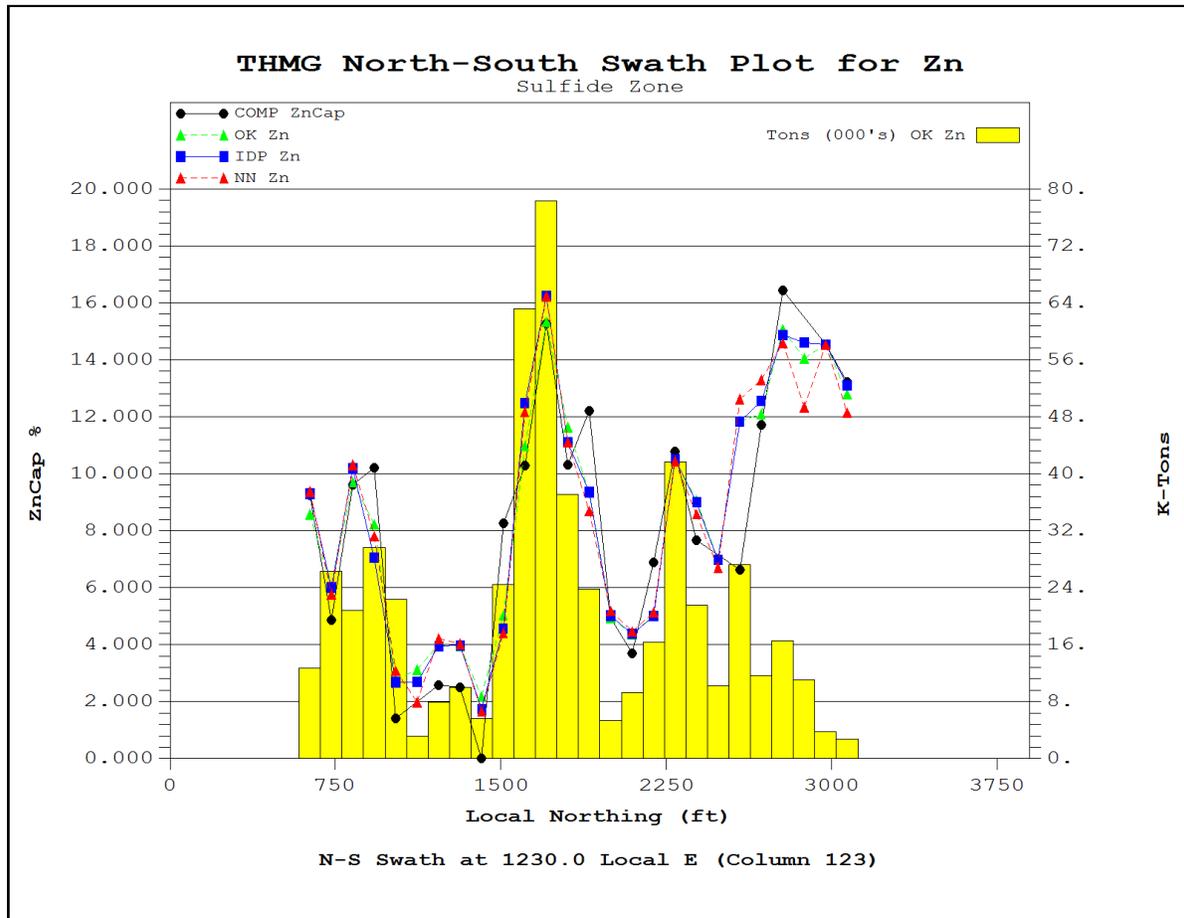
Figure 14-21 North/South Zinc Swath Plot (Sulfide)
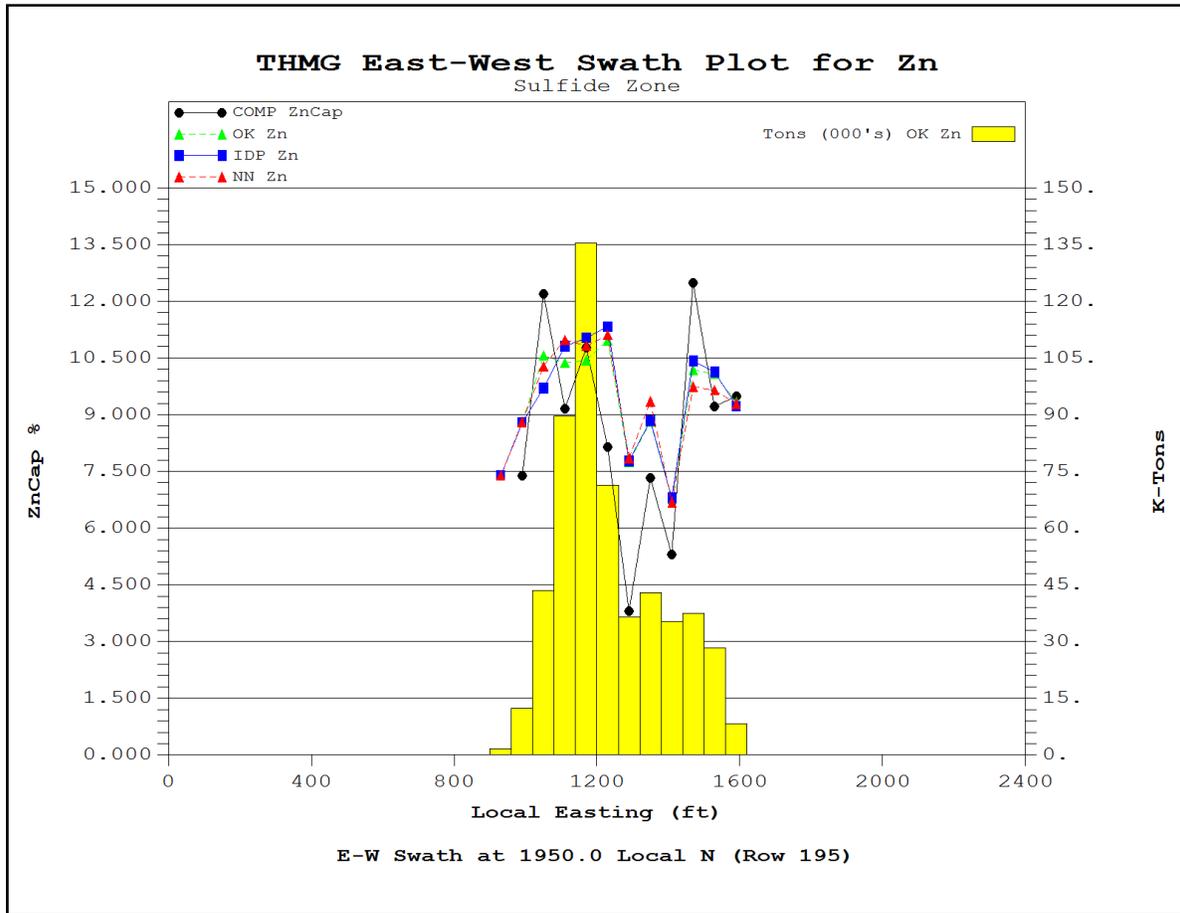
Figure 14-22 East/West Zinc Swath Plot (Sulfide)
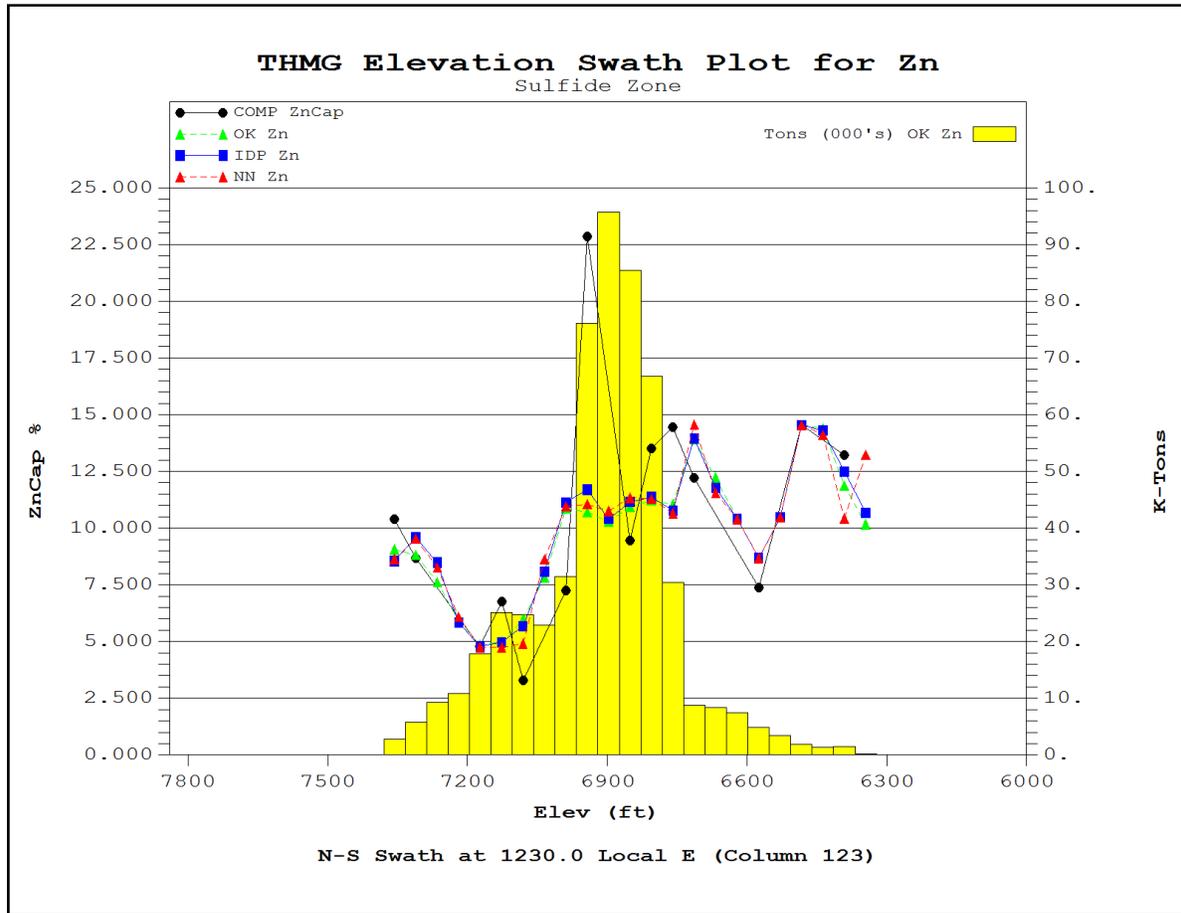
Figure 14-23 Elevation Zinc Swath Plot (Sulfide)

On a local scale, the nearest neighbor model does not provide a reliable estimate of grade, but on a much larger scale, it represents an unbiased estimation of the grade distribution based on the total data set. Therefore, if the OK model is unbiased, the grade trends may show local fluctuations on a swath plot, but the overall trend should be similar to the distribution of grade from the nearest neighbor.

Overall, there is good correlation between the grade models, although deviations occur near the edges of the deposit and in areas where the density of drilling is lesser, and material is classified as Inferred resource.

14.9.3 Visual Inspection

Bench plans, cross-sections, and long sections comparing modeled grades to the 10-foot composites were evaluated. An oblique view, oriented northeast, displaying estimated silver grades greater than 1.0 opt is shown in Figure 14-24. Figures 14-25 and 14-26 show estimated grades for the Laxey and Sonneman Levels respectively. The figures show good agreement between modeled grades and the composite grades. In addition, the modeled blocks display continuity of grades along strike and down dip.
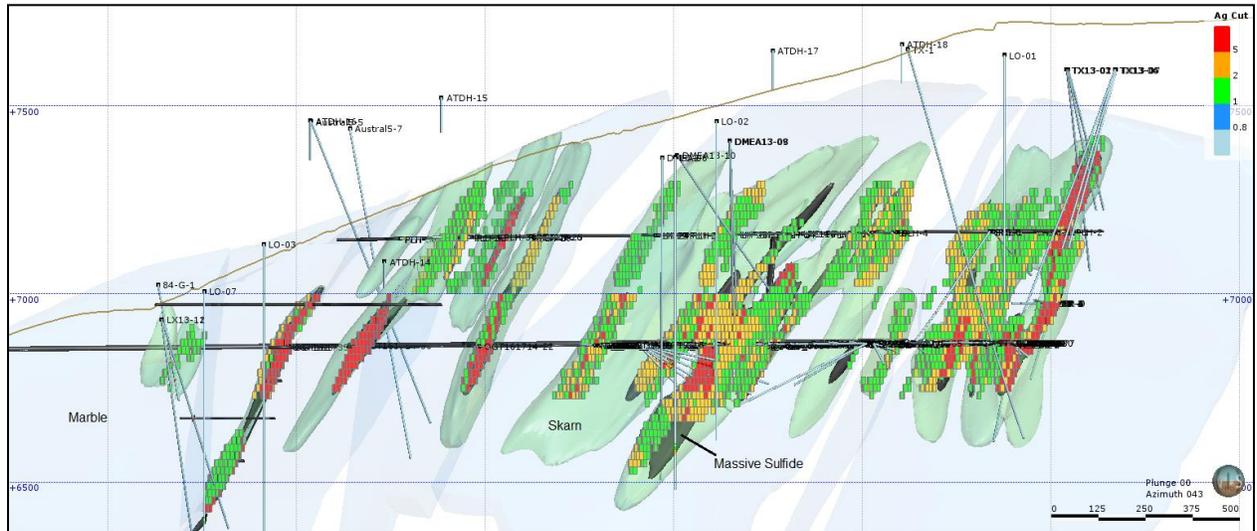
Figure 14-24 Oblique View, Oriented Northeast, Displaying Estimated Silver Grades Greater than 1.0 opt

Figure 14-25 Estimated Silver Grades on the Laxey Level
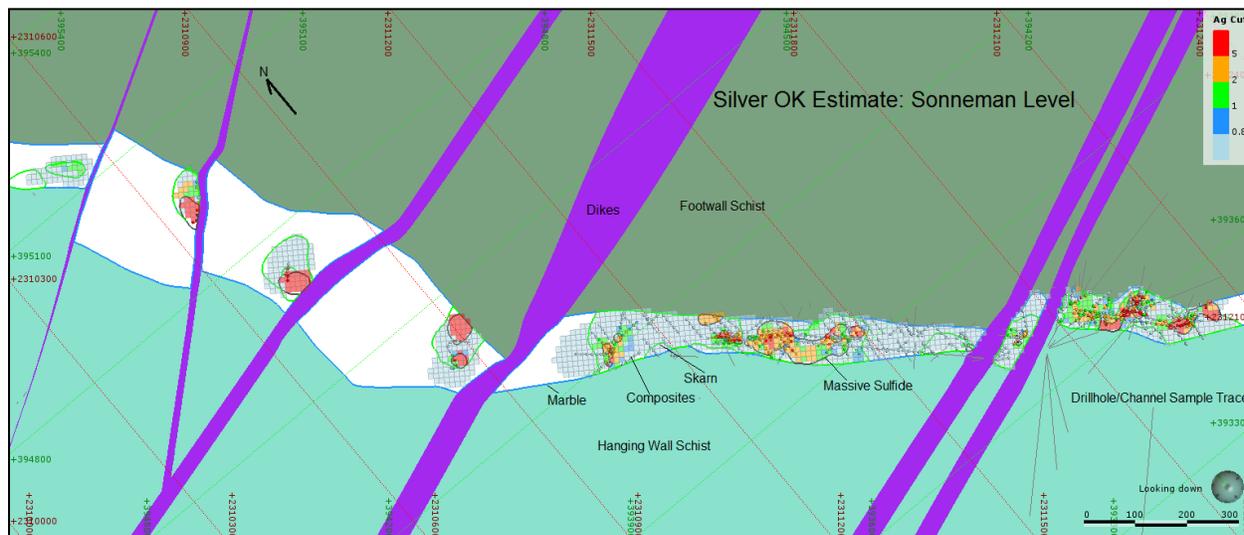
Figure 14-26 Estimated Silver Grades on the Sonneman Level

14.10 Density

The following discussion of the density specific to the Project is largely modified from, and in some cases, is excerpted directly from an interoffice memo from Ed Fields and Asa Beckwith entitled "South Mountain Tonnage Factor 10-14" (THMG 2014). Table 14-13 summarizes the densities applied to the block model estimation domains based on the results from this study.

A total of seventy (70) samples were collected from the 2014 surface and underground drill core. The samples were located in the three main mineralized zones; Texas, DMEA2 and Laxey in order to have a mine-wide representation and were collected from intersections above the Laxey Level, between the Laxey and Sonneman Level, and below the Sonneman Level.

The samples were collected by THMG Geologist and Technical Advisor Ed Fields, P.G., from various rock types initially identified in the detailed core logging and care was taken to select the best representative sample of the specific rock type at the preselected interval. A total of six rock types were determined to be of interest based on the total amount of mining anticipated in any individual lithology unit. These included massive sulfide; semi massive sulfide; Laxey marble (main ore zone host rock); upper marble (other marble layers); skarn hedenbergite (Alteration surrounding mineralized zones); and schist (wall rock waste). No samples were taken of either the Tertiary dike material or larger intrusive because none were encountered in the drilling. The samples were approximately 4 to 6 inches in length and were intact massive samples that were not fractured or broken in order to obtain a good specific gravity analytical result. The samples consisted of both half split and unsplit core depending on whether it was from a mineralized zone that had previously been sampled for regular elemental analysis. The samples weighed between ½ to 1 kg at the ALS laboratory prior to specific gravity analysis.

An important point regarding some of the rock types is the variation in sulfide mineral content that affects the specific gravity measurements.   The massive sulfide as defined can contain 50 to 100% sulfides including

sphalerite, pyrrhotite, chalcopyrite, pyrite and galena with the remainder of the material usually being calcite, ilvaite and or minor hedenbergite. The semi-massive sulfide contains 10-50% sulfides with the same matrix material. The skarn hedenbergite can have a variable amount of hedenbergite with the remainder as calcite, and or a minor amount (>5%) of sulfides. This variation is reflected in the wide range of maximum and minimum specific gravity and tonnage factors for these rock types. The Laxey marble and upper marble units and the schist units have a narrower range of values due to their lack of variation in mineral content.

The results of the sampling were combined into a single spreadsheet, and the Tonnage Factor per cubic foot was calculated for each sample.

The massive sulfide material has the lowest tonnage factor (8.26 ft3/ton) average as might be expected due to the predominance (+50%) of sulfide material in the samples.

The Laxey marble had a tonnage factor of 11.75 ft3/ton with a low spread of minimum (11.129) and maximum (12.049) values. The Laxey marble is slightly denser than the upper marble due to recrystallization of the calcite. However, this is not considered to be a significant variation.

The skarn hedenbergite had a tonnage factor of 10.44 ft3/ton with a fairly high spread of minimum (9.596) and maximum (12.004) values. This is due to the variable composition of the skarn which can have wide variation of calcite and hedenbergite with a minor component of disseminated sulfides.

Table 14-13 Densities and Tonnage Factors Applied the Block Model Estimation Domains

	Domains	ton/ft³	ft³/ton
Marble	11,21,31,41,51,61,71	0.085	11.75
Skarn	12,22,32,42,52,62,72	0.096	10.44
Sulfide	13,23,33,43,53,63	0.121	8.26

14.11   Mineral Resource Classification

Estimated blocks were classified as either Measured, Indicated, or Inferred, in accordance with CIM definition standards adopted by CIM Counsel on May 10, 2014, based on the minimum distance from the composites within the Laxey and Sonneman levels to the block, the estimation domain, and the geologic/geospatial support for the domain. The mineral resource classification was completed using polylines oriented vertically and along strike of the deposit. Using distance from composites on the Laxey and Sonneman levels 3D solids were extruded trough the block model from the polylines to code the blocks. Additional criteria based on modeled geology were then used to code the blocks into Measured and Indicated resources. Measured mineral resources are those blocks within the DMEA massive sulfide domain, and within 40ft of the Sonneman level. Indicated mineral resources are those blocks within the DMEA massive sulfide and within 80 ft of the Sonneman level, and 40 ft of the Laxey level. Additional indicated resources are within 40 ft of the Laxey and Sonneman levels within the Texas massive sulfide. Inferred mineral resources are all remaining estimated blocks. Figure 14-27 shows the resource classification polyline overlain on the modeled estimation domains.
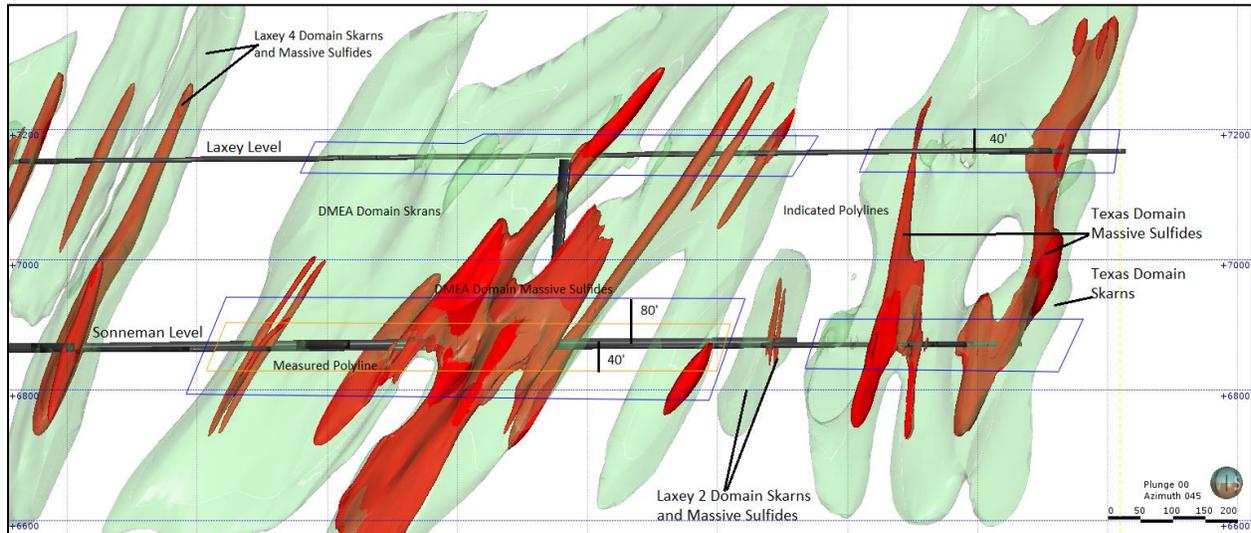
Figure 14-27 View of Measured and Indicated Polylines over Modeled Estimation Domains

14.12   Removal of Mined Out Volumes

The extent and dimensions of historically mined out material at South Mountain is not currently well understood. HRC used the best information available to remove mined out material from the mineral resource. Mined out stopes were determined from a long section (Figure 14-28). The long section was georeferenced to the underground developments and vertically oriented. Polylines were then traced around the mined-out stopes on the long sections. 3D wireframe solids were extruded from the polylines, through the block model to code the blocks with mined out stopes. 3D solids of the underground developments were also coded into the block model and removed from the mineral resource.
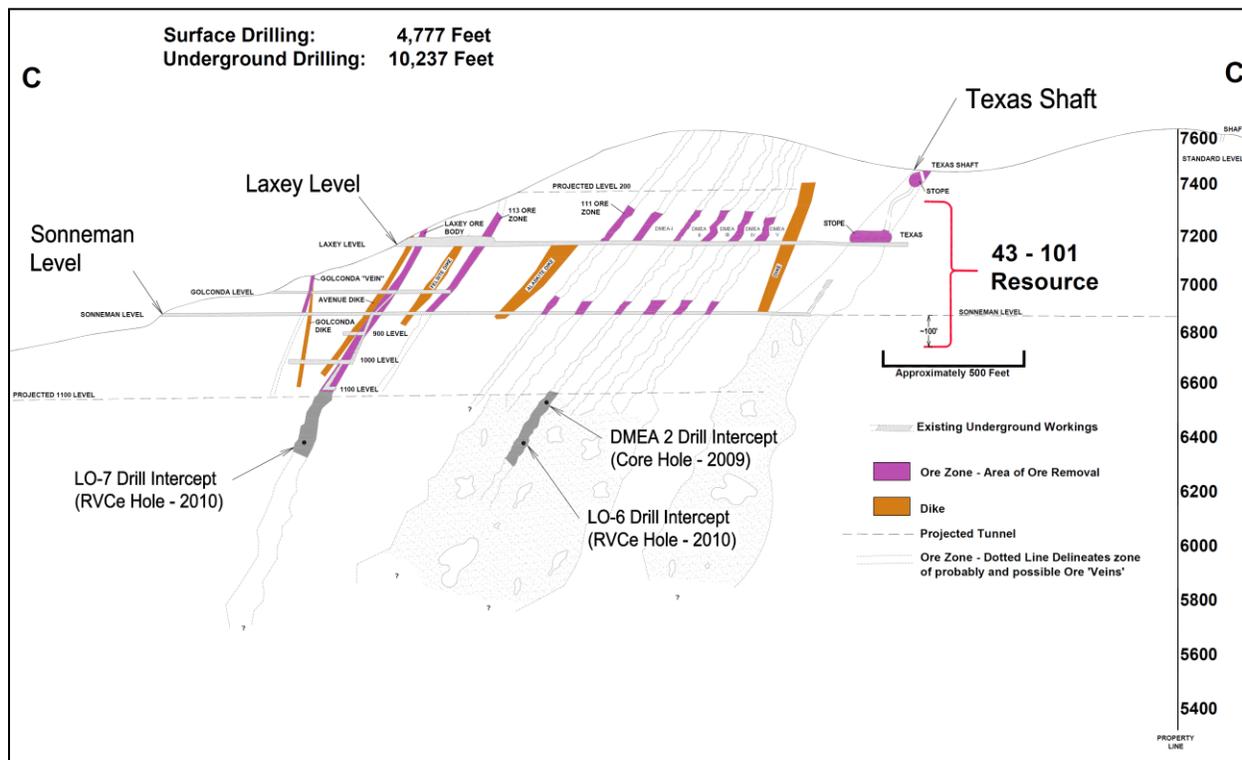
Figure 14-28 Long Section Used to Classify Mined Out Material within the Block Model

14.13   Mineral Resource Statement

Mr. Randall K. Martin, a Resource Geologist with HRC, is responsible for the South Mountain Project mineral resource estimate with an effective date of April 1, 2019. Mr. Martin is a Qualified Person as defined by NI 43-101 and is independent of BMET, the vendor, and the property. Mineral resources are not mineral reserves and do not have demonstrated economic viability such as diluting materials and allowances for losses that may occur when material is mined or extracted; or modifying factors including but not restricted to mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors. HRC knows of no existing environmental, permitting, legal, title, taxation, socio-economic, or other relevant factors that might materially affect the mineral resource estimate. Inferred mineral resources are that part of the mineral resource for which quantity and grade or quality are estimated on the basis of limited geologic evidence and sampling, which is sufficient to imply but not verify grade or quality continuity. Inferred mineral resources may not be converted to mineral reserves. It is reasonably expected, though not guaranteed, that the majority of Inferred mineral resources could be upgraded to Indicated mineral resources with continued exploration. The mineral resource is reported at an underground mining cutoff of 6.04% Zinc Equivalent Grade ("ZnEq") within coherent wireframe models.

Based on the thorough understanding of the geology at the South Mountain Project, in conjunction realistically assumed and justifiable technical and economic conditions, the QP considers the mineral resource to demonstrate reasonable prospects for eventual economic extraction. The cutoff is based on the following assumptions (presented in Table 14-14): three-year average metal prices for each metal of interest

(Table 14-15); assumed mining cost of $70/ton, process costs of $25/ton, general and administrative $7.50/ton, refining costs of $25.00/ton, metallurgical recovery of 96%, and a selling Zinc selling price of $1.10/lbs. The zinc equivalent calculation is presented below and does not take into account smelter charges and smelter payables.

ZnEq = (Au grade * 43.71) + (Ag grade * 0.55) + (Pb grade * 0.77) + (Cu grade * 1.35) + (Zn grade)

Table 14-14 Cut-off Grade Parameters

Resource Cutoff		
Mining	$/ore ton	$70.00
Processing	$/ore ton	$25.00
G&A	$/ore ton	$7.50
Recoveries	percent	96%
Refining & Smelting cost	$/ore ton	$25.00
Total cost	$/ore ton	$127.50
Zinc Selling Price	lbs	$1.10
ZnEq Cutoff Grade		**6.04%**

Table 14-15 Three Year Average Metal Prices

	Au	Ag	Pb	Zn	Cu
Prices: Three year average April 1st, 2018	$1,231.00	$16.62	$0.93	$1.10	$2.54
Recovery	75%	70%	87%	96%	56%

The mineral resource statement for the South Mountain Project is presented in Table 14-16. A breakdown of the mineral resource (Table 14-16) by massive sulfide and skarn domains are presented in Tables 14-17 through 14-20 respectively. Figure 14-29 shows the sensitivity to zinc selling price and cut-off of the tonnage and zinc equivalent grades. Rounding may result in apparent differences when summing tons, grade and contained metal content. Tonnage and grade measurements are in imperial units. Grades are reported in troy ounces per short ton or in percent.

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Table 14-16 Mineral Resource Statement for the South Mountain Project, April 1, 2019

Measured Mineral Resources at 6.04% ZnEq Cut-off												
Classification	Zinc Equivalent Resource			Contained Metal									
	Short Tons	ZnEq lbs	ZnEq %	Zn lbs	Zn%	Ag oz	Ag opt	Au oz	Au opt	Pb lbs	Pb %	Cu lbs	Cu %
	x1000	x1000		x1000		x1000		x1000		x1000		x1000	
Measured	63.2	22,200	17.57	14,700	11.64	237	3.745	4.0	0.063	600	0.483	700	0.566
Indicated	106.7	37,800	17.72	21,500	10.08	576	5.398	7.0	0.066	2,100	0.983	1,600	0.766
Measured + Indicated	**169.9**	**60,000**	**17.66**	**36,200**	**10.66**	**813**	**4.783**	**11.0**	**0.065**	**2,700**	**0.797**	**2,300**	**0.692**
Inferred	363.2	120,800	16.63	70,500	9.70	2,029	5.585	16.3	0.045	8,700	1.202	5,200	0.696

1. The effective date of the mineral resource estimate is April 1st, 2019. Mr. Randall K. Martin of HRC is the QP of the mineral resource estimate and is independent of the vendor, property, and BMET.
2. Mineral resources that are not mineral reserves do not have demonstrated economic viability. Inferred mineral resources are that part of the mineral resource for which quantity and grade or quality are estimated on the basis of limited geologic evidence and sampling, which is sufficient to imply but not verify grade or quality continuity. Inferred mineral resources may not be converted to mineral reserves. It is reasonably expected, though not guaranteed, that the majority of Inferred mineral resources could be upgraded to Indicated mineral resources with continued exploration..
3. The mineral resource is reported at an underground mining cutoff of 6.04% Zinc Equivalent Grade ("ZnEq") within coherent wireframe models. The ZnEq calculation and cutoff is based on the following assumptions: an Au price of $1,231/oz, Ag price of $16.62/oz, Pb price of $0.93/lb., Zn price of $1.10/lb. and Cu price of $2.54/lb.; metallurgical recoveries of 75% for Au, 70% for Ag, 87% for Pb, 96% for Zn and 56% for Cu, assumed mining cost of $70/ton, process costs of $25/ton, general and administrative costs of $7.5/ton, smelting and refining costs of $25/ton. Based on the stated prices and recoveries the ZnEq formula is calculated as follows; ZnEq = (Au grade * 43.71) + (Ag grade * 0.55) + (Pb grade * 0.77) + (Cu grade * 1.35) + (Zn grade)
4. Rounding may result in apparent differences when summing tons, grade and contained metal content. Tonnage and grade measurements are in imperial units.

Table 14-17 Mineral Resource Estimate (April 1, 2019) Contained Within Massive Sulfides Only

Mineral Resources Contained within Massive Sulfide Domains at 6.04% ZnEq Cut-off												
Classification	Zinc Equivalent Resource			Contained Metal									
	Short Tons	ZnEq lbs	ZnEq %	Zn lbs	Zn %	Ag oz	Ag opt	Au oz	Au opt	Pb lbs	Pb %	Cu lbs	Cu %
	x1000	x1000		x1000		x1000		x1000		x1000		x1000	
Measured	63.2	22,200	17.57	14,700	11.64	237	3.745	4.0	0.063	600	0.483	700	0.566
Indicated	106.7	37,800	17.72	21,500	10.08	576	5.398	7.0	0.066	2,100	0.983	1,600	0.766
Measured + Indicated	169.9	60,000	17.66	36,200	10.66	813	4.783	11.0	0.065	2,700	0.797	2,300	0.692
Inferred	342.4	117,300	17.13	69,300	10.12	2,000	5.790	14.8	0.043	8,700	1.266	4,900	0.711

Table 14-18 Mineral Resource Estimate (April 1, 2019) Contained Within Skarns Only

	Mineral Resources Contained within Skarn Domains at 6.04% ZnEq Cut-off												
	Zinc Equivalent Resource			Contained Metal									
Classification	Short Tons	ZnEq lbs	ZnEq %	Zn lbs	Zn %	Ag oz	Ag opt	Au oz	Au opt	Pb lbs	Pb %	Cu lbs	Cu %
	x1000	x1000		x1000		x1000		x1000		x1000		x1000	
Measured	-	-	-	-	-	-	-	-	-	-	-	-	-
Indicated	-	-	-	-	-	-	-	-	-	-	-	-	-
Measured + Indicated	-	-	-	-	-	-	-	-	-	-	-	-	-
Inferred	20.7	3,500	8.44	1,200	2.81	46	2.212	1.7	0.084	100	0.141	200	0.441

Table 14-19 Mineral Resource Estimate by Individual Massive Sulfide Domains

		Zinc Equivalent Resource			Contained Metal									
Classification	Domain Code	Short Tons	ZnEq lbs	ZnEq %	Zn lbs	Zn %	Ag oz	Ag opt	Au oz	Au opt	Pb lbs	Pb %	Cu lbs	Cu %
		x1000	x1000		x1000		x1000		x1000		x1000		x1000	
Measured	13	-	-	-	-	-	-	-	-	-	-	-	-	-
Indicated		34.6	12,200	17.69	4,900	7.03	257	7.432	3.1	0.090	1,500	2.111	500	0.752
Measured + Indicated		34.6	12,200	17.63	4,900	7.03	257	7.432	3.1	0.090	1,500	2.111	500	0.752
Inferred		76.0	26,300	17.30	10,700	7.05	537	7.061	6.4	0.084	2,900	1.937	1,400	0.890
Measured	23	-	-	-	-	-	-	-	-	-	-	-	-	-
Indicated		-	-	-	-	-	-	-	-	-	-	-	-	-
Measured + Indicated		-	-	-	-	-	-	-	-	-	-	-	-	-
Inferred		0.7	100	8.30	20	1.38	4	5.854	0.0	0.009	0	0.014	0	2.424
Measured	33	63.2	22,200	17.57	14,700	11.64	237	3.745	4.0	0.063	600	0.483	700	0.566
Indicated		72.1	25,600	17.73	16,700	11.54	319	4.421	3.9	0.054	600	0.442	1,100	0.773
Measured + Indicated		135.3	47,800	17.67	31,300	11.59	555	4.105	7.9	0.058	1,200	0.461	1,800	0.676
Inferred		100.0	36,100	18.05	23,400	11.72	418	4.177	6.5	0.065	1,000	0.503	1,200	0.607
Measured	43	-	-	-	-	-	-	-	-	-	-	-	-	-
Indicated		-	-	-	-	-	-	-	-	-	-	-	-	-
Measured + Indicated		-	-	-	-	-	-	-	-	-	-	-	-	-
Inferred		75.3	21,400	14.20	13,400	8.89	439	5.831	0.8	0.011	600	0.427	1,400	0.962
Measured	53	-	-	-	-	-	-	-	-	-	-	-	-	-
Indicated		-	-	-	-	-	-	-	-	-	-	-	-	-
Measured + Indicated		-	-	-	-	-	-	-	-	-	-	-	-	-
Inferred		56.4	18,200	16.18	1,900	10.54	225	3.997	0.5	0.009	3,800	3.349	400	0.351
Measured	63	-	-	-	-	-	-	-	-	-	-	-	-	-
Indicated		-	-	-	-	-	-	-	-	-	-	-	-	-
Measured + Indicated		-	-	-	-	-	-	-	-	-	-	-	-	-
Inferred		34.1	15,200	22.20	9,900	14.48	360	10.552	0.6	0.017	300	0.446	400	0.626

Table header: Mineral Resources Contained within Massive Sulfide Domains at 6.04% ZnEq Cut-off

Table 14-20 Mineral Resource Estimate by Individual Skarn Domains

Classification	Domain Code	Zinc Equivalent Resource			Contained Metal									
		Short Tons	ZnEq lbs	ZnEq %	Zn lbs	Zn %	Ag oz	Ag opt	Au oz	Au opt	Pb lbs	Pb %	Cu lbs	Cu %
		x1000	x1000		x1000		x1000		x1000		x1000		x1000	
Measured	12	-	-	-	-	-	-	-	-	-	-	-	-	-
Indicated		-	-	-	-	-	-	-	-	-	-	-	-	-
Measured + Indicated		-	-	-	-	-	-	-	-	-	-	-	-	-
Inferred		0.2	0	8.26	0	4.03	1	2.963	0.0	0.001	0	0.001	0	1.896
Measured	22	-	-	-	-	-	-	-	-	-	-	-	-	-
Indicated		-	-	-	-	-	-	-	-	-	-	-	-	-
Measured + Indicated		-	-	-	-	-	-	-	-	-	-	-	-	-
Inferred		-	-	-	-	-	-	-	-	-	-	-	-	-
Measured	32	-	-	-	-	-	-	-	-	-	-	-	-	-
Indicated		-	-	-	-	-	-	-	-	-	-	-	-	-
Measured + Indicated		-	-	-	-	-	-	-	-	-	-	-	-	-
Inferred		20.5	3,500	8.40	1,100	2.80	45	2.205	1.7	0.085	100	0.142	200	0.427
Measured	42	-	-	-	-	-	-	-	-	-	-	-	-	-
Indicated		-	-	-	-	-	-	-	-	-	-	-	-	-
Measured + Indicated		-	-	-	-	-	-	-	-	-	-	-	-	-
Inferred		-	-	-	-	-	-	-	-	-	-	-	-	-
Measured	52	-	-	-	-	-	-	-	-	-	-	-	-	-
Indicated		-	-	-	-	-	-	-	-	-	-	-	-	-
Measured + Indicated		-	-	-	-	-	-	-	-	-	-	-	-	-
Inferred		-	-	-	-	-	-	-	-	-	-	-	-	-
Measured	62	-	-	-	-	-	-	-	-	-	-	-	-	-
Indicated		-	-	-	-	-	-	-	-	-	-	-	-	-
Measured + Indicated		-	-	-	-	-	-	-	-	-	-	-	-	-
Inferred		-	-	-	-	-	-	-	-	-	-	-	-	-
Measured	72	-	-	-	-	-	-	-	-	-	-	-	-	-
Indicated		-	-	-	-	-	-	-	-	-	-	-	-	-
Measured + Indicated		-	-	-	-	-	-	-	-	-	-	-	-	-
Inferred		-	-	-	-	-	-	-	-	-	-	-	-	-

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Figure 14-29 Grade Tonnage Curve for Estimated ZnEq Grade

15.   ADJACENT PROPERTIES

HRC knows of no adjacent properties which might materially affect the interpretation or evaluation of the mineralization or exploration targets of the South Mountain Project.

16. OTHER RELEVANT DATA AND INFORMATION

This report summarizes all data and information material to the South Mountain Project as of April 1, 2019. HRC knows of no other relevant technical or other data or information that might materially impact the interpretations and conclusions presented herein, nor of any additional information necessary to make the report more understandable or not misleading.

17.   INTERPRETATION AND CONCLUSIONS

HRC concludes that the geology of the South Mountain Project is well understood and that the appropriate deposit model is being applied for exploration. The conceptual geologic model is sound, and in conjunction with drilling results, indicates that mineralization is essentially open in all directions. Significant potential exists to increase the known mineral resource with additional drilling, as well as to upgrade existing mineral resource classifications with some amount of infill drilling. HRC finds the current mineral resource at the South Mountain Project sufficient to warrant continued planning and effort in order to further advance and develop the Project.

HRC finds the sample preparation, analytical procedures, and security measures presently employed at the South Mountain Project to be reasonable and adequate to ensure the validity and integrity of the data derived from sampling programs to date. Based on the results of the site investigation and data validation efforts, HRC considers the drilling and sampling data, as contained in the current Project database, to be reasonably accurate and suitable for use in estimating mineral resources.

The South Mountain Project is not subject to any known environmental liabilities. Existing surface rights are sufficient for all presently proposed development and operations activities. The Project is largely located on and surrounded by private land surface, and as such the permitting and environmental aspects of the Project are quite simple and straightforward. Based on permits in hand and associated work completed to date, in conjunction with the long and successful history of mineral exploration throughout the district, no barriers to proposed or future plans for exploration and development at the Project are anticipated.

17.1   Risks and Uncertainties

At the present stage of Project development, the most likely processing scenario involves producing a lead and zinc concentrate. The closest smelter is the located in Trail, BC but the metal payables and terms that would be required from this smelter are not known. Discussion with this smelter and other smelters around the world should begin to determine the best option for marketing the concentrate and determine what metals will be payable in the final concentrates.

HRC knows of no other significant existing risks or uncertainties that could reasonably affect the reliability or confidence in exploration information, mineral resource estimates, or the current potential economic viability of the Project.

18.   RECOMMENDATIONS

18.1   General Recommendations

During the course of this study, HRC made a number of observations regarding data handling, document management, and general drilling and sampling procedures and protocols for which modifications and/or improvements could positively affect the level of confidence in the drillhole data and subsequent mineral resource estimates:

- Formal, written procedures for data collection and handling should be developed and made available to field personnel. These should include procedures and protocols for field work, geological mapping and logging, database construction, sample chain of custody, and documentation trail. These procedures should also include detailed and specific QA/QC procedures for analytical work, including acceptance/rejection criteria for batches of samples.

- A detailed review of field practices and sample collection procedures should be performed on regular basis, to ensure that the correct procedures and protocols are being followed.

- Review and evaluation of laboratory work should be an on-going process, including occasional visits to the laboratories involved.

- The existing QA/QC program should be expanded to include at least standards, blanks, and duplicates. All QA/QC control samples sent for analysis should be blind, meaning that the laboratory should not be able to differentiate a check sample from the regular sample stream. The minimum control unit with regard to check sample insertion rate should be the batch of samples originally sent to the laboratory. Samples should be controlled on a batch by batch basis, and rejection criteria should be enforced. Ideally, assuming a 40-sample batch, the following control samples should be sent to the primary laboratory:

    o Two blanks (5% of the total number of samples). Of these, one coarse blank should be inserted for every 4th blank inserted (25% of the total number of blanks inserted).

    o Two pulp duplicates (5% of the total number of samples)

    o Two coarse duplicates (5% of the total number of samples)

    o Two standards appropriate to the expected grade of the batch of samples (5% of the total number of samples).

- For drill hole samples, the control samples sent to a second (check) laboratory should be from pulp duplicates in all cases and should include one blank, two sample pulps, and one standard for every 40-sample batch.

- The purpose of the coarse duplicates is to quantify the variances introduced into the assay grade by errors at different sample preparation stages. Coarse duplicates are inserted into the primary sample stream to provide an estimate of the sum of the assay variance plus the sample preparation variance, up to the primary crushing stage. An alternative to the coarse duplicate is the field duplicate, which in the case of core samples, is a duplicate from the core box (i.e. a quarter core or the other half core). If coarse duplicates are preferred (in order to preserve drill core), the coarse duplicates should be sent for preparation and assaying by the second laboratory.

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- QA/QC analysis should be conducted on an on-going basis and should include consistent acceptance/rejection tests. Each round of QA/QC analysis should be documented, and reports should include a discussion of the results and any corrective actions taken.

The database audit work completed to date indicates that occasional inconsistencies and/or erroneous entries are likely inherent or inevitable in the data entry process. The QP recommends that BEMET establish a routine, internal mechanical audit procedure to check for overlaps, gaps, total drill hole length inconsistencies, non-numeric assay values, and negative numbers. The internal mechanical audit should be carried out after any significant update to the database, and the results of each audit, including any corrective actions taken, should be documented and stored for future use in database validation.

18.2   Metallurgical

Additional selective flotation testing should be completed toward optimizing the zinc flotation circuit with emphasis on pyrrhotite and pyrite rejection. Sphalerite reagent optimization is required, and some concentrate cleaning work is recommended. The removal of pyrrhotite from the final zinc concentrate by low intensity magnetic separation may be warranted. In addition, the copper in the lead concentrate may not be a payable item as some smelters will pay for as much as 40% of contained copper while others considered copper deleterious, communication with smelters on possible terms should be started to understand what the payables in the final concentrates will be.

18.3   Recommended Work Plan and Budget

HRC's recommended work plan is intended to support advancing the Project to the next level of study, whether a Preliminary Economic Assessment or Prefeasibility Study. Engineering aspects of Project development need to be assessed to identify and evaluate any potential challenges or costs that might impact the overall Project economics. The recommended work plan is heavily weighted toward underground drilling. Although a large portion of the underground workings have been rehabilitated and upgraded, there are some additional historic workings that may require rehabilitation work and establishment of drilling bays. BMET's goal is approximately 50% confirmation and in-fill drilling, with the balance geared toward core drilling the down dip extensions of the major massive sulfide zones, and additional focus on evaluating mineralization between existing mine levels.

At this time, HRC recommends a single-phase work plan to include site and underground re-establishment, the completion of approximately 2,500m (8,500ft) of underground core drilling, geological logging, sampling and analytical work, with associated project management costs. The drilling program will provide critical data on the continuity and potential extensions to the South Mountain mineralization. The planned activities will take place from the existing underground development, where the boreholes will be collared, primarily within the patented claim area. A small number of the planned underground boreholes may extend into the unpatented claim area surrounding the patented claims.

Table 18-1 breaks out the summary of anticipated costs per task for the recommended work plan and, for completeness, includes administrative costs that will be incurred throughout the program.

Table 18-1 Recommended Scope of Work for the South Mountain Project

Recommended Scope of Work	Expected Cost US $
SITE & UNDERGROUND RE-ESTABLISHMENT	220,000
DRILLING / ANALYSIS / DATABASE	533,750
PROJECT MANAGEMENT / ENVIRONMENTAL / H&S	885,000
CONTINGENCY	163,875
TOTAL BUDGET	1,802,625

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Appendix A

Drillhole Summary Tables

DRILLHOLE SUMMARY

Hole ID	Easting	Northing	Elevation	Azimuth	Inclination	Total Depth	Drill Type	Company	Year
PC-1	2312219.50	393724.10	7165.72	30.0	0.0	75.7	core	Potash Corp	1960s
PC-10	2311674.90	394012.30	7160.83	185.0	0.0	68.0	core	Potash Corp	1960s
PC-11	2311608.80	394096.60	7159.38	5.0	0.0	68.0	core	Potash Corp	1960s
PC-12	2311017.80	394593.50	7150.88	66.0	0.0	143.0	core	Potash Corp	1960s
PC-2	2312210.70	393727.10	7165.67	348.0	0.0	238.5	core	Potash Corp	1960s
PC-2A	2312209.20	393724.50	7165.72	306.0	0.0	190.0	core	Potash Corp	1960s
PC-3	2312287.10	393713.20	7165.90	27.0	0.0	47.0	core	Potash Corp	1960s
PC-6	2312067.20	393692.50	7166.29	80.0	-35.0	204.7	core	Potash Corp	1960s
PC-7	2312063.10	393697.90	7166.20	40.0	0.0	184.0	core	Potash Corp	1960s
PC-9	2311845.40	393891.20	7162.88	84.0	0.0	73.6	core	Potash Corp	1960s
PLH-1	2312315.40	393710.80	7165.94	25.0	0.0	54.0	longhole	Potash Corp	1960s
PLH-10	2311730.00	393971.40	7161.52	182.0	0.0	85.0	longhole	Potash Corp	1960s
PLH-13	2299947.00	385568.80	6000.00	0.0	-90.0	60.0	longhole	Potash Corp	1960s
PLH-14	2311631.20	394058.90	7160.02	185.0	0.0	60.0	longhole	Potash Corp	1960s
PLH-15	2311631.80	394066.60	7159.89	Unknown	Unknown		longhole	Potash Corp	1960s
PLH-17	2311536.50	394150.00	7158.47	3.0	0.0	60.0	longhole	Potash Corp	1960s
PLH-18	2311536.70	394140.80	7158.62	183.0	0.0	110.0	longhole	Potash Corp	1960s
PLH-2	2312353.70	393696.50	7166.00	25.0	0.0	162.0	longhole	Potash Corp	1960s
PLH-21	2311448.40	394226.90	7157.00	0.0	0.0	72.0	longhole	Potash Corp	1960s
PLH-22	2311447.30	394217.90	7157.00	180.0	0.0	60.0	longhole	Potash Corp	1960s
PLH-25	2311184.20	394483.20	7152.76	110.0	0.0	75.0	longhole	Potash Corp	1960s
PLH-26	2311190.80	394495.20	7152.55	56.0	0.0	45.0	longhole	Potash Corp	1960s
PLH-27	2311189.30	394496.70	7152.52	10.0	0.0	90.0	longhole	Potash Corp	1960s
PLH-28	2311131.10	394482.20	7152.78	5.0	0.0	140.0	longhole	Potash Corp	1960s
PLH-29	2311131.60	394471.90	7150.00	183.0	0.0	108.0	longhole	Potash Corp	1960s

Hole ID	Easting	Northing	Elevation	Azimuth	Inclination	Total Depth	Drill Type	Company	Year
PLH-3	2312247.60	393706.80	7166.02	25.0	0.0	66.0	longhole	Potash Corp	1960s
PLH-32	2311010.20	394593.80	7150.87	300.0	0.0	100.0	longhole	Potash Corp	1960s
PLH-34	2310961.10	394809.70	7147.15	132.0	0.0	137.0	longhole	Potash Corp	1960s
PLH-35	2311005.20	394860.20	7146.26	133.0	0.0	109.0	longhole	Potash Corp	1960s
PLH-36	2311049.00	394518.00	7152.18	60.0	0.0	140.0	longhole	Potash Corp	1960s
PLH-4	2311866.80	393850.80	7163.59	3.0	0.0	102.0	longhole	Potash Corp	1960s
PLH-5	2311820.30	393897.50	7162.79	3.0	0.0	72.0	longhole	Potash Corp	1960s
PLH-6	2311819.60	393885.70	7162.99	184.0	0.0	72.0	longhole	Potash Corp	1960s
PLH-9	2311731.20	393980.30	7160.00	2.0	0.0	99.0	longhole	Potash Corp	1960s
Austral5-1	2305945.40	408996.60	5934.00	100.0	40.0	464.0	core	Austral Oil	1971
Austral5-2	2306602.10	413381.70	6090.00	103.0	60.0	1335.0	core	Austral Oil	1971
Austral5-3	2307396.90	408166.70	5939.00	140.0	60.0	540.0	core	Austral Oil	1971
Austral5-4	2306180.80	405657.90	6083.00	135.0	70.0	783.0	core	Austral Oil	1971
Austral5-5	2312287.20	396573.10	7459.00	180.0	60.0	926.0	core	Austral Oil	1971
Austral5-6	2306696.40	412231.40	5847.00	315.0	70.0	597.0	core	Austral Oil	1971
Austral5-7	2312568.50	396723.00	7441.00	180.0	75.0	910.0	core	Austral Oil	1971
Austral5-8	2307027.70	415929.00	5860.00	90.0	70.0	1996.0	core	Austral Oil	1971
ATDH-14	2310473.50	394349.90	7086.00	0.0	90.0	72.0	air track	South Mountain Mining	1975-1985
ATDH-15	2312317.00	396100.00	7523.00	0.0	90.0	95.0	air track	South Mountain Mining	1975-1985
ATDH-16	2312239.70	396524.70	7461.50	0.0	90.0	107.0	air track	South Mountain Mining	1975-1985
ATDH-17	2311986.40	394461.00	7647.00	0.0	90.0	107.0	air track	South Mountain Mining	1975-1985
ATDH-18	2311966.80	393940.10	7664.50	0.0	90.0	105.0	air track	South Mountain Mining	1975-1985
3721_3656	2311832.00	393690.00	6870.00	137.3	0.0	195.0	channel sample	South Mountain Mining	1975-1985
CH_2151	2311971.30	393537.60	6871.00	35.0	0.0	6.0	channel sample	South Mountain Mining	1975-1985
CH_2152	2311974.60	393533.90	6871.00	35.0	0.0	6.0	channel sample	South Mountain Mining	1975-1985
CH_2153	2311978.70	393531.00	6871.00	35.0	0.0	8.4	channel sample	South Mountain Mining	1975-1985
CH_2154	2311983.80	393529.20	6871.00	30.0	0.0	11.5	channel sample	South Mountain Mining	1975-1985

Hard Rock Consulting, LLC

Hole ID	Easting	Northing	Elevation	Azimuth	Inclination	Total Depth	Drill Type	Company	Year
CH_2155	2311988.30	393527.50	6871.00	30.0	0.0	14.0	channel sample	South Mountain Mining	1975-1985
CH_2156	2311991.40	393526.00	6871.00	30.0	0.0	17.0	channel sample	South Mountain Mining	1975-1985
CH_2157	2311995.10	393525.00	6871.00	30.0	0.0	16.0	channel sample	South Mountain Mining	1975-1985
CH_2158	2312000.20	393527.10	6871.00	30.0	0.0	9.6	channel sample	South Mountain Mining	1975-1985
CH_2159	2312004.00	393527.80	6871.00	35.0	0.0	9.0	channel sample	South Mountain Mining	1975-1985
CH_2160	2311977.80	393545.70	6871.00	90.0	0.0	6.6	channel sample	South Mountain Mining	1975-1985
CH_2161	2311991.80	393543.30	6871.00	120.0	0.0	4.2	channel sample	South Mountain Mining	1975-1985
CH_2162	2312003.20	393539.30	6871.00	115.0	0.0	6.0	channel sample	South Mountain Mining	1975-1985
CH_2163	2311983.30	393527.70	6871.00	100.0	0.0	5.0	channel sample	South Mountain Mining	1975-1985
CH_2164	2311988.20	393525.80	6871.00	100.0	0.0	6.0	channel sample	South Mountain Mining	1975-1985
CH_2165	2311993.70	393524.10	6871.00	95.0	0.0	6.4	channel sample	South Mountain Mining	1975-1985
CH_2167	2311944.60	393626.80	6870.00	150.0	0.0	7.5	channel sample	South Mountain Mining	1975-1985
CH_2168	2311939.90	393625.10	6870.00	50.0	0.0	5.0	channel sample	South Mountain Mining	1975-1985
CH_2169	2311935.00	393622.40	6870.00	50.0	0.0	5.0	channel sample	South Mountain Mining	1975-1985
CH_2170	2311944.00	393619.60	6870.00	40.0	0.0	3.8	channel sample	South Mountain Mining	1975-1985
CH_2171	2311928.60	393618.10	6870.00	40.0	0.0	3.8	channel sample	South Mountain Mining	1975-1985
CH_2172	2311931.90	393605.40	6870.00	50.0	0.0	2.0	channel sample	South Mountain Mining	1975-1985
CH_2173	2311933.10	393600.40	6870.00	50.0	0.0	1.0	channel sample	South Mountain Mining	1975-1985
CH_2175	2311097.10	394196.70	6864.00	0.0	90.0	2.0	channel sample	South Mountain Mining	1975-1985
CH_2176	2311486.30	393929.90	6866.00	134.0	0.0	5.0	channel sample	South Mountain Mining	1975-1985
CH_2177	2312043.20	393534.00	6871.00	0.0	90.0	2.0	channel sample	South Mountain Mining	1975-1985
CH_2178	2312008.80	393536.10	6871.00	115.0	0.0	5.0	channel sample	South Mountain Mining	1975-1985
CH_2179	2312006.30	393528.20	6871.00	80.0	0.0	5.0	channel sample	South Mountain Mining	1975-1985
CH_2180	2312037.40	393531.80	6871.00	0.0	90.0	5.0	channel sample	South Mountain Mining	1975-1985
CH_2193	2312008.80	393536.10	6871.00	Unknown	Unknown	5.0	channel sample	South Mountain Mining	1975-1985
CH_3415	2311095.00	394198.40	6864.00	0.0	90.0	3.0	channel sample	South Mountain Mining	1975-1985
CH_3416	2311094.50	394208.80	6864.00	0.0	90.0	4.5	channel sample	South Mountain Mining	1975-1985

HARD ROCK CONSULTING, LLC

Hole ID	Easting	Northing	Elevation	Azimuth	Inclination	Total Depth	Drill Type	Company	Year
CH_3417	2311135.00	394218.90	6864.00	0.0	90.0	1.5	channel sample	South Mountain Mining	1975-1985
CH_3429_3468	2311348.10	394046.70	6865.00	115.0	0.0	40.0	channel sample	South Mountain Mining	1975-1985
CH_3469_3481	2311337.00	394047.10	6865.00	125.0	0.0	65.0	channel sample	South Mountain Mining	1975-1985
CH_3482_3486	2311389.50	394011.50	6865.00	175.0	0.0	25.0	channel sample	South Mountain Mining	1975-1985
CH_3490_3534	2311449.10	393956.40	6865.00	134.0	0.0	55.0	channel sample	South Mountain Mining	1975-1985
CH_3539_3542	2311633.40	393778.30	6870.00	130.0	0.0	20.0	channel sample	South Mountain Mining	1975-1985
CH_3554_3563	2311261.10	394106.40	6865.00	133.0	0.0	60.0	channel sample	South Mountain Mining	1975-1985
CH_3559_3566	2311269.10	394089.30	6865.00	130.0	0.0	50.0	channel sample	South Mountain Mining	1975-1985
CH_3567_3569	2311097.90	394195.50	6864.00	320.0	0.0	20.0	channel sample	South Mountain Mining	1975-1985
CH_3570	2311088.70	394206.90	6864.00	Unknown	Unknown		channel sample	South Mountain Mining	1975-1985
CH_3571_3573	2311095.00	394208.50	6864.00	140.0	0.0	15.0	channel sample	South Mountain Mining	1975-1985
CH_3574	2311105.10	394201.20	6864.00	85.0	0.0	5.0	channel sample	South Mountain Mining	1975-1985
CH_3575_3579	2311109.20	394203.10	6864.00	30.0	0.0	25.0	channel sample	South Mountain Mining	1975-1985
CH_3600_3605	2311705.80	393716.70	6870.00	105.0	0.0	30.0	channel sample	South Mountain Mining	1975-1985
CH_3651	2311936.40	393591.80	6870.00	0.0	90.0	5.0	channel sample	South Mountain Mining	1975-1985
CH_3652	2311936.20	393598.10	6870.00	0.0	90.0	6.0	channel sample	South Mountain Mining	1975-1985
CH_3653	2311933.40	393601.40	6870.00	0.0	90.0	3.0	channel sample	South Mountain Mining	1975-1985
CH_3654	2311931.90	393604.30	6870.00	0.0	90.0	6.0	channel sample	South Mountain Mining	1975-1985
CH_3655	2311933.60	393608.20	6870.00	0.0	90.0	3.5	channel sample	South Mountain Mining	1975-1985
CH_3656	2311927.40	393613.90	6870.00	0.0	90.0	5.0	channel sample	South Mountain Mining	1975-1985
CH_3657	2311922.00	393617.20	6870.00	0.0	90.0	7.0	channel sample	South Mountain Mining	1975-1985
CH_3658	2311917.40	393619.50	6870.00	0.0	90.0	6.0	channel sample	South Mountain Mining	1975-1985
CH_3659	2311913.50	393623.80	6870.00	0.0	90.0	6.0	channel sample	South Mountain Mining	1975-1985
CH_3660	2311909.90	393627.80	6870.00	0.0	90.0	6.0	channel sample	South Mountain Mining	1975-1985
CH_3661	2311932.80	393606.70	6870.00	0.0	90.0	4.5	channel sample	South Mountain Mining	1975-1985
CH_3662	2311938.40	393595.30	6870.00	0.0	90.0	2.8	channel sample	South Mountain Mining	1975-1985
CH_3663	2311905.10	393622.30	6870.00	0.0	90.0	2.0	channel sample	South Mountain Mining	1975-1985

Hole ID	Easting	Northing	Elevation	Azimuth	Inclination	Total Depth	Drill Type	Company	Year
CH_3664	2311907.80	393620.60	6870.00	0.0	90.0	2.0	channel sample	South Mountain Mining	1975-1985
CH_3667	2311922.00	393617.20	6870.00	Unknown	Unknown		channel sample	South Mountain Mining	1975-1985
CH_3708_3720	2311812.70	393708.30	6870.00	105.0	0.0	65.0	channel sample	South Mountain Mining	1975-1985
CH_3721_3646	2311839.00	393693.30	6870.00	130.0	0.0	100.0	channel sample	South Mountain Mining	1975-1985
S-25-1	2311645.50	393733.70	6868.04	315.0	-0.5	364.0	core	South Mountain Mining	1975-1985
S-25-2	2311645.00	393734.10	6868.00	310.0	-30.0	221.0	core	South Mountain Mining	1975-1985
S-25-3	2311645.00	393731.60	6868.05	298.0	-25.0	379.0	core	South Mountain Mining	1975-1985
S-25-4	2311654.90	393717.00	6868.00	160.0	-60.0	64.0	core	South Mountain Mining	1975-1985
S-25-5	2311654.70	393716.70	6868.16	135.0	-60.0	80.0	core	South Mountain Mining	1975-1985
S-25-6	2311658.00	393718.60	6868.17	104.5	-17.0	74.3	core	South Mountain Mining	1975-1985
S-25-7	2311657.90	393721.00	6868.00	92.0	-17.0	96.7	core	South Mountain Mining	1975-1985
S-25-8	2311655.90	393717.20	6868.16	117.5	-17.0	53.0	core	South Mountain Mining	1975-1985
S-25-9	2311657.90	393721.00	6868.00	85.0	-17.0	77.0	core	South Mountain Mining	1975-1985
S-27-1	2311755.40	393671.30	6868.84	68.0	1.0	60.0	core	South Mountain Mining	1975-1985
S-27-2	2311755.80	393667.60	6868.86	97.0	0.0	120.0	core	South Mountain Mining	1975-1985
S-27-3	2311755.20	393666.10	6868.86	112.0	-0.5	100.0	core	South Mountain Mining	1975-1985
S-27-4	2311755.90	393668.60	6868.85	84.0	-30.0	118.0	core	South Mountain Mining	1975-1985
SML-1	2312048.60	393686.80	7166.00	281.0	-52.0	375.4	core	South Mountain Mining	1975-1985
ST-1	2311935.80	393610.60	6869.98	108.0	0.0	171.5	core	South Mountain Mining	1975-1985
ST-10	2311879.10	393696.30	6869.35	78.0	0.0	251.0	core	South Mountain Mining	1975-1985
ST-11	2311743.40	393660.20	6868.80	226.0	1.0	314.0	core	South Mountain Mining	1975-1985
ST-12	2311743.60	393660.60	6868.82	215.0	2.0	224.0	core	South Mountain Mining	1975-1985
ST-13	2311744.10	393660.50	6868.83	205.0	1.0	157.3	core	South Mountain Mining	1975-1985
ST-2	2311931.90	393614.40	6869.97	50.0	0.0	87.7	core	South Mountain Mining	1975-1985
ST-28-1	2311834.50	393449.30	6870.00	225.0	0.0	296.0	core	South Mountain Mining	1975-1985
ST-3	2311917.80	393602.60	6870.00	238.0	0.0	41.6	core	South Mountain Mining	1975-1985
ST-4	2311916.90	393604.60	6870.00	260.0	0.0	138.7	core	South Mountain Mining	1975-1985

HARD ROCK CONSULTING, LLC

Hole ID	Easting	Northing	Elevation	Azimuth	Inclination	Total Depth	Drill Type	Company	Year
ST-8	2311857.60	393699.30	6869.23	50.0	0.0	79.0	core	South Mountain Mining	1975-1985
ST-9	2311859.50	393699.30	6869.24	66.0	0.0	52.0	core	South Mountain Mining	1975-1985
T28R-1	2312148.60	393579.40	6975.00	275.0	0.0	80.2	core	South Mountain Mining	1975-1985
T28R-2	2312148.60	393579.40	6975.00	245.0	5.0	75.0	core	South Mountain Mining	1975-1985
T28R-3	2312148.60	393579.40	6975.00	238.0	5.0	113.0	core	South Mountain Mining	1975-1985
T28R-4	2312152.60	393582.40	6975.00	290.0	0.0	96.5	core	South Mountain Mining	1975-1985
T28R-5	2312156.70	393584.40	6975.00	338.0	0.0	78.0	core	South Mountain Mining	1975-1985
T28R-6	2312156.70	393584.40	6975.00	345.0	0.0	40.6	core	South Mountain Mining	1975-1985
T28R-7	2312153.60	393577.40	6977.00	198.0	1.0	65.0	core	South Mountain Mining	1975-1985
T28R-9	2312155.60	393578.40	6977.00	190.0	1.0	54.0	core	South Mountain Mining	1975-1985
3487	2311380.40	393999.50	6865.00	259.0	1.0	28.0	longhole	South Mountain Mining	1975-1985
3488	2311419.60	394023.20	6865.00	62.0	1.0	24.0	longhole	South Mountain Mining	1975-1985
3489	2311362.60	394030.70	6865.00	263.0	1.0	24.0	longhole	South Mountain Mining	1975-1985
3551	2311567.10	393853.80	6870.00	10.0	0.0	28.0	longhole	South Mountain Mining	1975-1985
3634	2311846.60	393686.20	6870.00	218.0	9.0	32.0	longhole	South Mountain Mining	1975-1985
3635	2311862.40	393669.10	6870.00	200.0	8.0	32.0	longhole	South Mountain Mining	1975-1985
3636	2311889.30	393653.80	6870.00	51.0	0.0	32.0	longhole	South Mountain Mining	1975-1985
3637	2311909.10	393629.70	6870.00	82.0	0.0	40.0	longhole	South Mountain Mining	1975-1985
3640	2311913.00	393623.60	6871.00	104.0	0.0	60.0	longhole	South Mountain Mining	1975-1985
3641	2311868.50	393672.00	6870.00	95.0	3.0	20.0	longhole	South Mountain Mining	1975-1985
3642	2311807.70	393701.60	6870.00	232.0	3.0	32.0	longhole	South Mountain Mining	1975-1985
3643	2311882.20	393643.90	6870.00	226.0	3.0	24.0	longhole	South Mountain Mining	1975-1985
3647	2311924.80	393598.50	6870.00	190.0	0.0	28.0	longhole	South Mountain Mining	1975-1985
3648	2311932.90	393612.40	6870.00	63.0	0.0	28.0	longhole	South Mountain Mining	1975-1985
3651	2311932.90	393612.40	6870.00	67.0	2.0	60.0	longhole	South Mountain Mining	1975-1985
3652	2311935.70	393592.40	6870.00	143.0	3.0	44.0	longhole	South Mountain Mining	1975-1985
3701	2311727.80	393713.30	6870.00	317.0	14.0	28.0	longhole	South Mountain Mining	1975-1985

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Hole ID	Easting	Northing	Elevation	Azimuth	Inclination	Total Depth	Drill Type	Company	Year
3702	2311702.90	393717.60	6869.00	90.0	0.0	28.0	longhole	South Mountain Mining	1975-1985
3703	2311708.80	393715.50	6870.00	69.0	1.0	28.0	longhole	South Mountain Mining	1975-1985
3705	2311640.30	393771.10	6870.00	254.0	7.0	28.0	longhole	South Mountain Mining	1975-1985
3706	2311643.40	393779.10	6870.00	358.0	2.0	24.0	longhole	South Mountain Mining	1975-1985
LH-11	2311678.40	394032.90	7160.47	5.0	0.0	60.0	longhole	South Mountain Mining	1975-1985
LH-16	2311583.20	394100.30	7159.32	183.0	0.0	120.0	longhole	South Mountain Mining	1975-1985
LH-23	2311383.20	394269.80	7156.42	2.0	0.0	54.0	longhole	South Mountain Mining	1975-1985
LH-24	2311383.10	394261.30	7156.56	180.0	0.0	60.0	longhole	South Mountain Mining	1975-1985
LH-7	2311775.30	393936.20	7162.13	2.0	0.0	71.0	longhole	South Mountain Mining	1975-1985
LH-8	2311775.80	393921.50	7162.38	185.0	0.0	63.0	longhole	South Mountain Mining	1975-1985
N1901	2311086.90	394173.30	6864.00	95.0	3.0	60.0	longhole	South Mountain Mining	1975-1985
N1902	2311077.50	394177.70	6863.43	16.0	2.0	24.0	longhole	South Mountain Mining	1975-1985
N1903	2311096.60	394197.40	6863.44	264.0	2.0	60.0	longhole	South Mountain Mining	1975-1985
N1904	2311089.90	394208.20	6863.36	311.0	1.0	60.0	longhole	South Mountain Mining	1975-1985
N1905	2311102.20	394200.10	6864.00	356.0	2.0	60.0	longhole	South Mountain Mining	1975-1985
N1906	2311131.30	394213.90	6864.00	87.0	3.0	50.0	longhole	South Mountain Mining	1975-1985
N1907	2311115.30	394213.00	6864.00	3.0	2.0	50.0	longhole	South Mountain Mining	1975-1985
N1908	2311134.40	394220.60	6863.54	53.0	2.0	50.0	longhole	South Mountain Mining	1975-1985
N2009	2311166.50	394186.50	6863.83	180.0	2.0	50.0	longhole	South Mountain Mining	1975-1985
N2010	2311171.20	394201.10	6863.80	351.0	-1.0	50.0	longhole	South Mountain Mining	1975-1985
N2011	2311187.40	394199.60	6863.88	89.0	0.0	32.0	longhole	South Mountain Mining	1975-1985
N2012	2311195.00	394171.10	6864.04	1.0	4.0	52.0	longhole	South Mountain Mining	1975-1985
N2013	2311195.10	394161.80	6864.08	189.0	3.0	48.0	longhole	South Mountain Mining	1975-1985
O2014	2311225.40	394146.80	6864.29	359.0	0.0	52.0	longhole	South Mountain Mining	1975-1985
O2016	2311255.00	394112.10	6864.57	358.0	4.0	52.0	longhole	South Mountain Mining	1975-1985
O2115	2311224.10	394134.00	6867.00	170.0	2.0	44.0	longhole	South Mountain Mining	1975-1985
O2117	2311279.30	394091.00	6864.78	357.0	6.0	40.0	longhole	South Mountain Mining	1975-1985

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Hole ID	Easting	Northing	Elevation	Azimuth	Inclination	Total Depth	Drill Type	Company	Year
O2118	2311278.70	394080.50	6864.82	193.0	2.0	52.0	longhole	South Mountain Mining	1975-1985
O2119	2311294.30	394081.10	6864.89	355.0	3.0	32.0	longhole	South Mountain Mining	1975-1985
O2120	2311293.30	394074.00	6864.92	173.0	1.0	48.0	longhole	South Mountain Mining	1975-1985
O2121	2311307.30	394072.90	6864.99	351.0	1.0	60.0	longhole	South Mountain Mining	1975-1985
O2122	2311322.30	394065.00	6865.10	349.0	2.0	52.5	longhole	South Mountain Mining	1975-1985
P2102	2311324.50	394063.50	6865.10	90.0	0.0	52.0	longhole	South Mountain Mining	1975-1985
P2123	2311324.00	394055.30	6865.15	169.0	2.0	32.0	longhole	South Mountain Mining	1975-1985
P2201	2311314.80	394060.30	6865.08	180.0	0.0	24.0	longhole	South Mountain Mining	1975-1985
P2203	2311387.40	394004.50	6865.00	270.0	0.0	48.0	longhole	South Mountain Mining	1975-1985
P2204	2311380.50	393999.80	6865.65	247.0	0.0	52.0	longhole	South Mountain Mining	1975-1985
P2205	2311387.80	393996.50	6865.70	181.0	0.0	16.0	longhole	South Mountain Mining	1975-1985
P2206	2311406.50	394019.90	6865.70	9.0	0.0	52.0	longhole	South Mountain Mining	1975-1985
P2224	2311338.30	394046.10	6865.25	186.0	2.0	56.0	longhole	South Mountain Mining	1975-1985
P2225	2311353.20	394044.80	6865.33	4.0	4.0	4.0	longhole	South Mountain Mining	1975-1985
P2225R	2311350.10	394038.20	6865.34	184.0	2.0	8.0	longhole	South Mountain Mining	1975-1985
P2226	2311352.90	394036.30	6865.37	176.0	2.0	16.0	longhole	South Mountain Mining	1975-1985
P2227	2311369.20	394026.70	6865.49	176.0	1.0	60.0	longhole	South Mountain Mining	1975-1985
P2228	2311384.30	394025.10	6865.57	356.0	3.0	44.0	longhole	South Mountain Mining	1975-1985
P2230	2311408.00	393997.40	6865.80	180.0	2.0	16.0	longhole	South Mountain Mining	1975-1985
Q2307	2311451.80	393954.00	6866.19	275.0	0.0	40.0	longhole	South Mountain Mining	1975-1985
Q2332	2311452.60	393963.20	6866.16	1.0	0.0	32.0	longhole	South Mountain Mining	1975-1985
Q2333	2311452.30	393953.30	6866.20	184.0	3.0	52.0	longhole	South Mountain Mining	1975-1985
Q2334	2311467.20	393949.80	6866.28	2.0	3.0	52.0	longhole	South Mountain Mining	1975-1985
Q2335	2311466.80	393939.70	6866.00	180.0	0.0	4.0	longhole	South Mountain Mining	1975-1985
Q2335A	2311466.80	393939.70	6866.00	266.0	0.0	52.0	longhole	South Mountain Mining	1975-1985
Q2335R	2311466.80	393939.70	6866.00	180.0	0.0	52.0	longhole	South Mountain Mining	1975-1985
Q2336	2311482.80	393933.60	6866.00	7.0	4.0	52.0	longhole	South Mountain Mining	1975-1985

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Hole ID	Easting	Northing	Elevation	Azimuth	Inclination	Total Depth	Drill Type	Company	Year
Q2337	2311482.10	393925.50	6866.46	182.0	1.0	8.0	longhole	South Mountain Mining	1975-1985
Q2338	2311498.60	393918.50	6867.00	9.0	0.0	52.0	longhole	South Mountain Mining	1975-1985
Q2338A	2311497.60	393910.50	6867.00	189.0	1.0	52.0	longhole	South Mountain Mining	1975-1985
Q2339	2311511.50	393905.30	6866.00	6.0	4.0	52.0	longhole	South Mountain Mining	1975-1985
Q2340	2311513.10	393894.90	6866.73	185.0	3.0	36.0	longhole	South Mountain Mining	1975-1985
Q2341	2311528.20	393890.10	6866.83	0.0	0.0	52.0	longhole	South Mountain Mining	1975-1985
Q2372	2311532.30	393884.10	6866.00	90.0	3.0	52.0	longhole	South Mountain Mining	1975-1985
R2442	2311540.30	393868.60	6866.97	187.0	0.0	52.0	longhole	South Mountain Mining	1975-1985
R2443	2311556.80	393861.40	6867.09	1.0	2.0	52.0	longhole	South Mountain Mining	1975-1985
R2444	2311556.50	393852.90	6867.12	270.0	1.0	24.0	longhole	South Mountain Mining	1975-1985
R2445	2311572.00	393847.30	6867.22	88.0	2.0	48.0	longhole	South Mountain Mining	1975-1985
R2446	2311573.90	393833.80	6867.00	189.0	2.0	16.0	longhole	South Mountain Mining	1975-1985
R2446R	2311575.00	393833.30	6867.29	175.0	-1.0	44.0	longhole	South Mountain Mining	1975-1985
R2447	2311582.60	393837.70	6867.31	356.0	0.0	52.0	longhole	South Mountain Mining	1975-1985
R2449	2311616.90	393803.60	6867.62	353.0	1.0	44.0	longhole	South Mountain Mining	1975-1985
R2450	2311615.60	393795.30	6867.64	173.0	1.0	32.0	longhole	South Mountain Mining	1975-1985
R2450A	2311614.70	393795.50	6867.64	268.0	4.0	52.0	longhole	South Mountain Mining	1975-1985
R2451	2311627.00	393794.50	6867.70	88.0	-1.0	52.0	longhole	South Mountain Mining	1975-1985
R2452	2311646.70	393773.90	6867.89	358.0	-2.0	20.0	longhole	South Mountain Mining	1975-1985
R2470	2311569.30	393852.80	6867.18	45.0	0.0	60.0	longhole	South Mountain Mining	1975-1985
R2471	2311564.90	393841.00	6867.21	225.0	1.0	52.0	longhole	South Mountain Mining	1975-1985
S2655	2311731.30	393713.80	6868.55	315.0	0.0	52.0	longhole	South Mountain Mining	1975-1985
S2656	2311741.50	393715.60	6868.59	28.0	0.0	52.0	longhole	South Mountain Mining	1975-1985
S2656D	2311746.00	393715.80	6868.61	315.0	0.0	52.0	longhole	South Mountain Mining	1975-1985
S2757	2311856.40	393674.50	6869.33	270.0	3.0	48.0	longhole	South Mountain Mining	1975-1985
S2757A	2311857.50	393670.00	6869.35	231.0	0.0	12.0	longhole	South Mountain Mining	1975-1985
S2758	2311867.50	393674.20	6869.38	90.0	2.0	52.0	longhole	South Mountain Mining	1975-1985

Hole ID	Easting	Northing	Elevation	Azimuth	Inclination	Total Depth	Drill Type	Company	Year
S2766	2311856.40	393699.80	6869.23	43.0	0.0	52.0	longhole	South Mountain Mining	1975-1985
S2767	2311836.80	393703.80	6869.11	54.0	0.0	48.0	longhole	South Mountain Mining	1975-1985
S2768	2311818.60	393706.80	6869.01	60.0	0.0	52.0	longhole	South Mountain Mining	1975-1985
T2759	2311873.50	393657.80	6869.48	279.0	0.0	24.0	longhole	South Mountain Mining	1975-1985
T2760	2311882.80	393657.90	6869.52	92.0	0.0	44.0	longhole	South Mountain Mining	1975-1985
T2801	2311932.80	393603.40	6870.00	45.0	0.0	40.0	longhole	South Mountain Mining	1975-1985
T2802	2311924.00	393617.50	6870.00	45.0	0.0	28.0	longhole	South Mountain Mining	1975-1985
T2803	2311986.30	393546.90	6871.00	320.0	0.0	28.0	longhole	South Mountain Mining	1975-1985
T2804	2311988.30	393546.90	6871.00	355.0	0.0	36.0	longhole	South Mountain Mining	1975-1985
T2805	2311963.30	393541.10	6871.00	181.0	0.0	44.0	longhole	South Mountain Mining	1975-1985
T2806	2311997.10	393523.80	6871.00	185.0	0.0	38.0	longhole	South Mountain Mining	1975-1985
T2807	2311938.80	393595.40	6871.00	45.0	0.0	24.0	longhole	South Mountain Mining	1975-1985
T2808	2311917.00	393619.60	6871.00	45.0	0.0	40.0	longhole	South Mountain Mining	1975-1985
T2809	2311942.40	393554.30	6871.00	220.0	0.0	20.0	longhole	South Mountain Mining	1975-1985
T2810	2311941.50	393561.30	6871.00	270.0	0.0	24.0	longhole	South Mountain Mining	1975-1985
T2891	2311991.30	393543.90	6871.00	62.0	0.0	48.0	longhole	South Mountain Mining	1975-1985
T2892	2312010.20	393535.70	6871.00	72.0	0.0	28.0	longhole	South Mountain Mining	1975-1985
T2893	2312006.20	393532.70	6871.00	107.0	0.0	16.0	longhole	South Mountain Mining	1975-1985
T2894	2312005.20	393527.80	6871.00	138.0	0.0	16.0	longhole	South Mountain Mining	1975-1985
84-G-1	2310458.30	395210.80	7025.00	194.0	70.0	328.0	core	South Mountain Mining	1984
T29-86-1	2311987.20	393532.90	6867.00	145.0	-39.0	55.5	core	South Mountain Mining	1986
T29-86-2	2311987.20	393532.90	6867.00	145.0	-44.0	17.8	core	South Mountain Mining	1986
T29-86-3	2311987.20	393532.90	6867.00	170.0	-46.0	42.0	core	South Mountain Mining	1986
T29-86-4	2311991.20	393534.90	6867.00	245.0	-69.0	131.4	core	South Mountain Mining	1986
T29-86-5	2311991.20	393534.90	6867.00	245.0	-62.0	295.0	core	South Mountain Mining	1986
DMEA2	2311147.40	393993.70	7363.54	42.0	-86.0	863.0	core	Thunder Mountain Gold	2008
TX-1	2311977.70	393928.00	7651.00	195.0	-59.2	1221.0	core	Thunder Mountain Gold	2008

Hole ID	Easting	Northing	Elevation	Azimuth	Inclination	Total Depth	Drill Type	Company	Year
LO-01	2310720.00	392210.00	7636.00	0.0	-90.0	625.0	RC	Thunder Mountain Gold	2010
LO-02	2310073.00	392635.00	7460.00	0.0	-90.0	850.0	RC	Thunder Mountain Gold	2010
LO-03	2308744.00	392970.00	7133.00	0.0	-90.0	940.0	RC	Thunder Mountain Gold	2010
LO-04	2312356.00	390391.00	7264.00	0.0	-90.0	505.0	RC	Thunder Mountain Gold	2010
LO-05	2311925.00	390425.00	7284.00	0.0	-90.0	620.0	RC	Thunder Mountain Gold	2010
LO-06	2311155.90	393952.50	7364.29	0.0	-90.0	885.0	RC	Thunder Mountain Gold	2010
LO-07	2310297.30	394860.50	7007.32	0.0	-90.0	640.0	RC	Thunder Mountain Gold	2010
DMEA13-08	2311269.60	393861.50	7407.69	50.0	-66.3	657.0	core	Thunder Mountain Gold	2013
DMEA13-09	2311267.70	393860.20	7407.57	46.0	-66.3	573.0	core	Thunder Mountain Gold	2013
DMEA13-10	2311176.40	393965.70	7369.20	88.0	-46.9	601.0	core	Thunder Mountain Gold	2013
LX13-11	2310143.10	394860.60	6932.33	78.0	-60.1	640.0	core	Thunder Mountain Gold	2013
LX13-12	2310143.10	394860.60	6932.33	75.0	-75.6	745.0	core	Thunder Mountain Gold	2013
TX13-01	2312334.20	393688.10	7596.81	68.0	-56.6	443.0	core	Thunder Mountain Gold	2013
TX13-02	2312332.20	393686.60	7596.59	68.0	-64.9	415.0	core	Thunder Mountain Gold	2013
TX13-03	2312328.70	393687.60	7596.64	58.0	-61.6	609.0	core	Thunder Mountain Gold	2013
TX13-04	2312444.90	393623.70	7596.82	266.0	-62.5	798.0	core	Thunder Mountain Gold	2013
TX13-05	2312446.60	393624.50	7596.65	272.0	-69.2	658.0	core	Thunder Mountain Gold	2013
TX13-06	2312445.30	393625.60	7596.53	282.0	-71.5	572.0	core	Thunder Mountain Gold	2013
TX13-07	2312449.20	393624.40	7596.90	266.0	-69.5	878.0	core	Thunder Mountain Gold	2013
CH_OGT_161671_161702	2311260.00	394091.00	6867.00	129.6	0.0	295.0	channel sample	Thunder Mountain Gold	2014
CH_OGT_161714_161722	2310845.90	394380.30	6861.00	176.8	0.0	107.0	channel sample	Thunder Mountain Gold	2014
CH_OGT_161724_161730	2310737.00	394738.00	6864.00	222.5	0.0	40.0	channel sample	Thunder Mountain Gold	2014
CH_OGT_161731_161734	2310703.00	394974.00	6859.00	211.3	0.0	44.0	channel sample	Thunder Mountain Gold	2014
CH_OGT_161735_161739	2310670.00	394928.00	6860.00	213.7	0.0	40.0	channel sample	Thunder Mountain Gold	2014
DM2UC13-13	2311185.00	394126.00	6867.00	133.0	-24.0	329.0	core	Thunder Mountain Gold	2014
DM2UC13-14	2311185.00	394126.00	6867.00	133.0	-17.0	363.0	core	Thunder Mountain Gold	2014
DM2UC13-15	2311185.00	394126.00	6867.00	133.0	-31.0	296.0	core	Thunder Mountain Gold	2014

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Hole ID	Easting	Northing	Elevation	Azimuth	Inclination	Total Depth	Drill Type	Company	Year
DM2UC13-16	2311185.00	394126.00	6867.00	133.0	-36.0	306.0	core	Thunder Mountain Gold	2014
DM2UC13-17	2311185.00	394126.00	6867.00	133.0	-12.0	342.0	core	Thunder Mountain Gold	2014
DM2UC13-18	2311185.00	394126.00	6867.00	133.0	-47.0	226.0	core	Thunder Mountain Gold	2014