



# UPDATED TECHNICAL REPORT AND PRELIMINARY ECONOMIC ASSESSMENT

## WIND MOUNTAIN GOLD-SILVER PROJECT

### TOPICAL REPORT RSI- 1002

PREPARED FOR



4600 Kietzke Lane, Building B, Ste 112  
Reno, Nevada, 89502

JANUARY 20, 2023

[RESPEC.COM](http://RESPEC.COM)





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## WIND MOUNTAIN GOLD-SILVER PROJECT

**DRAFT** TOPICAL REPORT RSI(RNO)-1001



**PREPARED BY**

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**PREPARED FOR**

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**JANUARY 20, 2023**

Project Number M0181.22001  
Revision: 8



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## 1.0 SUMMARY

RESPEC Company LLC (“RESPEC”), formerly Mine Development Associates (“MDA”), has prepared this updated technical report on the Wind Mountain gold-silver project, located in the state of Nevada, at the request of Bravada Gold Corporation (“Bravada”). Bravada was formed as a spin-off of Bravo Gold Corporation’s Nevada property holdings and began trading in May 2010. In August 2010, Bravada announced its intention to merge with Fortune River Resource Corporation (“Fortune River”), who held the Wind Mountain project through its wholly owned subsidiary Rio Fortuna Exploration (U.S.), Inc. (“Rio Fortuna”), to form an amalgamated company that retained the name “Bravada Gold Corp.”; the merged company began trading in January 2011. Rio Fortuna is now a wholly owned U.S. subsidiary of Bravada. Bravada is referred to in this report as “Fortune River,” “Rio Fortuna,” or “Bravada,” as appropriate for the subject and date discussed.

The purpose of this technical report is to provide an updated mineral resource estimate and Preliminary Economic Assessment (“PEA”) for the Wind Mountain gold-silver project for Bravada. This report and the resource estimates have been prepared in accordance with the disclosure and reporting requirements set forth in the Canadian Securities Administrators’ National Instrument 43-101 (“NI 43-101”), Companion Policy 43-101CP, and Form 43-101F1, as well the Canadian Institute of Mining, Metallurgy and Petroleum’s “CIM Definition Standards - For Mineral Resources and Reserves, Definitions and Guidelines” (“CIM Standards”) adopted by the CIM Council on May 10, 2014. Effective Date of the estimated mineral resources is October 4, 2022, and of this technical report is January 20, 2023.

Gold and silver mineralization occurs at Wind Mountain in a low-sulfidation epithermal system. The Wind Mountain gold-silver project was operated from 1989 to 1999 under ownership of AMAX Gold Inc. (“AMAX”) through its subsidiary Wind Mountain Mining, Inc. “AMAX” is used in this report to refer to both AMAX Gold Inc. and Wind Mountain Mining, Inc., except in Section 4.4, where Wind Mountain Mining, Inc. (“WMMI”) is used for accuracy in discussing environmental permitting issues. AMAX and Wind Mountain Mining, Inc. were merged with Kinross Gold USA, Inc. (“Kinross”) in 1998.

### 1.1 LOCATION AND LAND

The Wind Mountain gold-silver project is located in the northern portion of Washoe County, Nevada, approximately 20mi by road south of the small town of Gerlach and approximately 65mi by road north of the larger town of Fernley. It is approximately two hours by vehicle north-northeast of Reno, Nevada.

The Wind Mountain property is located in Sections 3, 4, and 10, T.29N., R.23E., and Sections 21, 22, 27, 28, 33 and 34, T.30N., R.23E. of the Mount Diablo Base and Meridian. The property is composed of 124 unpatented lode mining claims that total approximately 2,480 acres. The claims are currently in good standing, and all holding costs have been paid through September 1, 2023. The claims are wholly owned or leased by Rio Fortuna, Bravada’s wholly owned U.S. subsidiary. The 114 claims owned by Rio Fortuna, as well as an area of interest of approximately one mile around the outer perimeter of the claims, are subject to a 2% net smelter return (“NSR”) royalty to Agnico-Eagle, which can be reduced to 1% NSR by payment of US\$1 million; the 10 leased claims are subject to a 3% NSR royalty payable to Harold L. Fuller (“Fuller”), which can be reduced to 1% NSR by payment of US\$2 million and are also subject to the Agnico-Eagle royalty.

## 1.2 GEOLOGY AND MINERALIZATION

The Wind Mountain property is located in the Lake Range in the Basin and Range physiographic province, a region marked by moderate to high mountain ranges separated by desert valleys. The Wind Mountain project area is underlain by weakly metamorphosed Mesozoic sedimentary rocks, which are exposed on the southern portion of the property. Upper Miocene volcanic and volcanoclastic rocks exposed at the surface overlie the Mesozoic units and host nearly all of the known gold and silver mineralization. Strong hydrothermal alteration of the volcanoclastic rocks is found over an area of 2.5 square miles. This area is cut by several large north-striking normal faults as well as a series of northeast-striking normal faults that drop down stratigraphy to the west. Intense silicification occurs in and adjacent to major structures with broad envelopes of moderate to weak argillization peripheral to the stronger alteration.

Gold and silver at the Wind Mountain project were deposited in a low-sulfidation epithermal system. Both structures and favorable stratigraphic horizons were receptive hosts for mineralizing fluids. The Wind deposit strikes north-south for about 5,000ft. The mineralization is tabular and sub-horizontal, extending in places east-west over a distance of 1,200ft. The Wind deposit is separated from the Breeze and Deep Min deposits by the Wind Mountain fault. The Breeze and Deep Min deposits appear to occupy the same stratigraphic horizon that dips southwards from Breeze at the north end to the Deep Min deposit. The mineralization at the Breeze deposit covers an area that is 3,400ft north-south by 1,000ft wide by 200ft vertical thickness. The Deep Min deposit lies on the downthrown side of the Wind deposit adjacent to the Wind Mountain fault. Offset across the Wind Mountain fault increases from about 50 to 100ft at the north end of the property to 700ft in the vicinity of the Deep Min deposit.

Gold mineralization in the Wind and Breeze deposits occurs as electrum and also may be associated with pyritic coatings on an early barren form of pyrite, prior to oxidation. Silver occurs in electrum in oxidized zones, but the host mineral of the unoxidized silver mineralization has not been identified. Oxidation and leaching are strongly developed to depths of 600ft in general and up to 1,000ft adjacent to the Wind Mountain fault zone. The degree of oxidation can have a significant impact on the metallurgical recovery of gold and silver.

## 1.3 EXPLORATION AND MINING HISTORY

Modern exploration activities on the Wind Mountain property began in 1978. AMAX first leased the property in 1980 and drilled 10 holes but relinquished the property in 1982. Santa Fe Pacific Gold Corp. ("Santa Fe") and Chevron Resources ("Chevron") conducted exploration programs in 1982 through 1986 that included drilling 38 reverse circulation holes. AMAX returned to the property in 1987 and drilled 416 additional drill holes through 1991. Most of the AMAX exploration activities were directed toward the discovery and development of relatively shallow oxide gold-silver mineralization that was eventually mined in the Wind and Breeze open pits and processed via heap leaching. A total of 433,194 ounces of gold were contained in the mined and processed material, which consisted of approximately 24.6 million tons of ore averaging 0.018oz Au/ton. Although silver was recovered from the ore during heap leaching, a pre-mining evaluation of the silver content of the ore was never completed.

AMAX produced 299,259 ounces of gold and 1.77 million ounces of silver from the Wind Mountain mine by open pit mining and heap leaching from 1989 through 1999. The property was considered one of the lowest-

grade mines of its time but was still profitable because of a combination of factors including low stripping ratio, good cyanide leaching recoveries, and low process costs.

Mining was done by conventional loader and truck operations in two open pits. A mining cutoff grade of 0.010oz Au/ton was used. Two leach pads were operated, and 61% of the leached material was run-of-mine while the remaining leach material was crushed before placement on the pads. Total gold recovery was 69% after rinsing of leach pads. Through historic mining, approximately 5.9 ounces of silver were recovered for every recovered ounce of gold.

Prior to completion of permitted pits, mining was stopped in 1992 due to rising costs, low metal prices, and disputes over royalty positions. Gold production continued through 1999 through additional leaching and rinsing of material on the heap leach pads.

Fortune River acquired the property in February 2006. Fieldwork conducted by Fortune River through 2010 included surface rock-chip sampling, geologic mapping, a ground magnetics survey, dump sampling, and drilling of 13 holes in 2007 and 14 holes in 2008. Fortune River also collected historic data and developed a three-dimensional ("3-D") computer model of geology and mineralization. This work demonstrated that disseminated gold was deposited over a broad area along relatively flat-lying permeable horizons, with higher concentrations along fracture sets and small-scale faults trending north, northeast, and northwest.

Since its acquisition of Fortune River in 2011, Bravada has conducted mapping, soil sampling, heap sampling, and contracted biological and archeological studies that would be necessary for mine permitting. In addition, Bravada completed 92 drill holes from 2011 through 2021.

## 1.4 DRILLING

Five companies have drilled a total of 583 holes in the Wind Mountain property totaling 226,214ft for which RESPEC has records. All but four of the holes were reverse circulation ("RC") holes; the four core holes were drilled in areas that have since been mined. Drill spacing for the entire resource averages 160ft. In addition to the drill-hole data, blasthole data were available in the AMAX archives that contained blasthole coordinates with gold and silver assays for 81,275 blastholes.

During drilling, groundwater was encountered in many of the deep holes. Discharge from the RC rig was generally estimated to be as much as 50 gallons per minute ("gpm") starting at depths of about 700ft, although 120 gpm was measured in one 1,000ft hole. Measured water temperatures generally did not exceed 95.8°F, although a temperature as high as 114°F was recorded at a true depth of 1,235ft below the surface. Although no drilling was conducted solely to test groundwater, sufficient drilling has been done by AMAX, Fortune River, and Bravada to indicate that no geothermal conditions will hinder the mining of the established near-surface resource.

Drilling by Fortune River and Bravada produced the following results:

- / Verified that potentially leachable gold and silver mineralization remained unmined beneath and adjacent to the existing pits;

- / Gold mineralization in Deep Min zone was discovered by relatively deep drilling on the west, hanging-wall side of the Wind Mountain fault in the vicinity of the Wind pit. The Deep Min deposit is a westward extension of mineralization has been down dropped approximately 700ft;
- / Identified other targets with shallow oxide gold-silver mineralization; and
- / Confirmed that the historic dumps could contain some economically viable gold mineralization amenable to heap leaching.

## 1.5 MINERAL PROCESSING AND METALLURGICAL TESTING

Several metallurgical studies have been completed on the Wind Mountain gold-silver project, but the most compelling indication for gold and silver recovery is from historical production that occurred between 1989 and 1999.

The most significant metallurgical studies suggested gold recoveries of 51% to 67% would be possible, though most testwork anticipated crushing of ore. A McClelland Laboratories, Inc. ("McClelland") study (McClelland, 1990) suggested that gold recoveries of 58% would be possible as well as silver recovery of 17%.

Historic production confirmed the deposit is amenable to leaching with a total recovery, during active leaching, of gold of 67% and total recovery after rinsing of 69%. In addition, a total of 1.77 million ounces of silver was recovered during historical operations; however, the silver grade analysis lacked the confidence to properly track recovery.

In 2008, Fortune River commissioned McClelland to conduct column testing of two bulk dump samples from the Wind and Breeze pits. Leaching of the Wind pit material for 134 days recovered 60.7% of the gold and 14.6% of the silver. The dump sample from the Breeze pit had a high clay content which did not allow the leach solutions to pass through the column. A prominent clay layer was encountered within the trench from which the Breeze sample was derived, and no attempt was made to segregate the clay layer from the sample in order to indicate the probable results of a worst case scenario. According to Alan Noble, production records indicate that high-clay material was selectively sent to the waste dump, even if it had ore-grade mineralization.

Cold cyanide extraction tests were also conducted by BSI Inspectorate and ALS Chemex Labs on pulps from intervals of two holes from Deep Min. The mineralization that was tested is Inferred. It lies at depths of more than 600ft beneath the surface and ranges from partially to totally unoxidized. Cold cyanide extraction tests yielded average extraction of between 10% and 41% of the gold and between 31% and 44% of the silver.

Waste dumps were constructed while the mine was operating using a 0.010oz Au/ton cutoff grade. In addition to the work by Fortune River described above, they conducted work to identify if the waste-dump material could be amenable to heap leaching. Testing was completed on dump surface samples on which BSI Inspectorate conducted one-hour cold cyanide extraction tests. The 108 dump samples were taken on a grid and two long trenches from the three largest dumps. Average extraction of 98% of the gold and 104% of the silver was achieved; however, the samples are not representative of all of the historical waste dumps.

In March 2011, eight metallurgical samples were taken from existing leach pads, existing waste dumps, and exposed open pit areas. All of the samples were subjected to size fraction analysis and bottle roll tests. Three of the samples, one from a leach pad, one from the Breeze pit, and one from the Wind pit were used for column leach testing at two different size reductions. The column testing showed that existing leach material is not readily amenable to further leaching but that material from the pit areas is amenable to leaching. The column test recoveries using 80% minus 1/2in and 80% minus 1/4in material were not particularly sensitive to crush size.

While there is ample information about global metallurgical recoveries, the bulk of this information is based on historical mining and recent surface sampling. This information may or may not be entirely representative of all future mining. To mitigate project risks, additional testing of changes in metallurgical recoveries spatially, particularly near oxidized/unoxidized boundaries, is needed.

## 1.6 MINERAL RESOURCE ESTIMATE

The mineral resources at the Wind Mountain project were modeled and estimated by evaluating the drill data statistically, utilizing the geologic interpretations provided by Bravada to interpret mineral domains on cross sections, analyzing the modeled mineralization statistically to aid in the establishment of estimation parameters, and estimating grades into three-dimensional block models.

A single set of gold domains and two sets (low-grade and high-grade) of silver domains were modeled on sections spaced 100ft apart. In general, the gold and high-grade silver domains exhibit similar distributions. Because there has been post-mineralization movement along the Wind Mountain fault, unique gold and silver domains were modeled within the fault zone.

Inverse-distance methods were applied to produce the reported resources. Inverse-distance estimates inside modeled gold and silver domains were done using an inverse power distance of three ("ID<sup>3</sup>"), and a power of four ("ID<sup>4</sup>") was used in the Wind Mountain fault domain estimate. The block model has not been rotated, and the blocks are 25ft north-south by 25ft east-west by 20ft vertical. The block dimensions have been chosen to best reflect the smallest unit potentially to be used for open-pit mining. Grade for each domain was estimated separately and then weight averaged to produce the reported fully block-diluted model.

Table 1-1 presents the Indicated and Inferred Wind Mountain diluted resources. The total resources are reported at a variable cutoff grade, which reflects the different cutoffs for oxide and unoxidized/mixed material. The oxide resource is reported at a cutoff of 0.006oz Au/ton. The unoxidized and mixed zones are reported at a cutoff of 0.014oz Au/ton based on the presumption that recoveries will be lower in the unoxidized material. The resources are constrained within an optimized pit using gold and silver prices of US\$1750/oz and US\$22/oz, respectively. The gold and silver deposit would be amenable to heap-leach processing.

Table 1-1 Gold and Silver Resources for Wind Mountain

2022 Resources Constrained in \$1750 Gold Price Optimized Pit					
Indicated					
Cutoff					
oz Au/ton	Tons	oz Au/ton	oz Ag/ton	oz Au	oz Ag
variable	45,583,000	0.010	0.26	474,000	11,807,000
Inferred					
Cutoff					
oz Au/ton	Tons	oz Au/ton	oz Ag/ton	oz Au	oz Ag
variable	2,604,000	0.008	0.19	21,900	497,000

Notes:

- The Effective Date of the Wind Mountain mineral resources is October 4, 2022.
- The estimate of mineral resources was done by RESPEC in Imperial tons.
- Mineral Resources comprised all model blocks at a 0.006oz Au/ton cut-off for Oxide within an optimized pit and 0.014oz Au/ton for Mixed and Unoxidized within an optimized pit.
- The project mineral resources (base cases) in Table 1-1 are comprised of all block-diluted Mineral Resources potentially amenable to open pit mining methods are reported using a gold price of US\$1,750/oz, a silver price of US\$21/oz and a throughput rate of 20,000 tonnes/day. Assumed metallurgical recoveries for gold are 62% for oxide, 20% for mixed and 15% for unoxidized. Assumed metallurgical recoveries for silver are 15% for oxide and 0% for mixed and unoxidized. Mining costs of US\$2.75/tonne mined, heap leach processing costs of US\$3.17/tonne processed, general and administrative costs of \$0.57/tonne processed. Gold and silver commodity prices were selected based on analysis of the three-year running average at the end of September 2022.
- Tabulations within the optimized pit at cutoffs above and below the base cases provide a measure of the sensitivity of possible resources that might result from future fluctuations in commodity prices and mining costs.
- Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
- The estimate of mineral resources may be materially affected by geology, environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues.
- Rounding may result in apparent discrepancies between tonnes, grade, and contained metal content.

RESPEC classified the Wind Mountain resources giving consideration to confidence in the underlying database, sample integrity, analytical precision/reliability, and geologic interpretations. The criteria for resource classification are given in Table 14-11. RESPEC did not classify any of the resource as Measured due to the absence of supporting documentation for some historical data, the lack of quality control for much of the underlying historical database, minimal metallurgical data at depth and the inconsistencies in estimated silver grades using exploration versus AMAX blasthole data. All of the Deep Min mineralization is classified as Inferred, primarily because the metallurgical data is minimal, and the model is based on only nine RC holes. All resources in the Wind Mountain fault zone are classified as Inferred.

In addition to the reported resources, there is mineralized material remaining on the existing heap leach pads and waste dumps. However, sampling is not yet sufficiently dense, and further test work is needed to determine whether remaining gold and silver are recoverable. Therefore, any metal contained in leach pads and dumps is not considered reportable as resources but does represent an opportunity to add to the Wind Mountain project inventory with additional work.

## 1.7 PRELIMINARY ECONOMIC ASSESSMENT (“PEA”)

At the request of Bravada, RESPEC has completed a PEA for the Wind Mountain gold-silver project. Note that Canadian NI 43-101 guidelines define a PEA as follows:

*A preliminary economic assessment is preliminary in nature and it includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied that would enable them to be classified as mineral reserves, and there is no certainty that the preliminary assessment will be realized.*

The PEA assumes open-pit mining using conventional trucks and shovels and run-of-mine leaching of the Indicated and Inferred resources summarized in Table 1-2.

Table 1-2 In-pit PEA Resources

	Indicated					Inferred				
	K Tons	Oz Au/ton	Oz Au	Oz Ag/ton	Oz Ag	K Tons	Oz Au/ton	Oz Au	Oz Ag/ton	Oz Ag
Breeze Pit	14,879	0.012	185	0.266	3,957	821	0.009	7	0.156	128
Wind Pit	14,346	0.010	149	0.267	3,831	254	0.010	3	0.229	58
Total	29,225	0.011	334	0.267	7,789	1,075	0.009	10	0.173	186

A gold price of \$1,750 per ounce and a silver price of \$21.00 per ounce were used for the economic evaluation. The PEA assumes that all material sent to run-of-mine (“ROM”) leach pads is amenable to heap leaching. Economic highlights include:

- / Undiscounted life-of-mine pre-tax cash flow of US\$75.8 million and US\$62.3 million after-tax;
- / Net present value (5% discount rate) of US\$46.1 million after-tax;
- / After-tax internal rate of return of 38%;
- / Payback period of 1.79 years;
- / Life-of-mine All-In-Sustaining cost of \$1,175 per equivalent ounce of gold (includes silver as a credit and Nevada net proceeds tax and royalties as costs, but does not include corporate income tax);
- / Total pre-tax cost of \$1,394 per equivalent ounce of gold (includes silver as a credit and Nevada net proceeds tax and royalties as costs, but does not include corporate income tax);
- / Strip ratio is 0.55 tons of waste for each ton of leachable material; and
- / 213,000 ounces of gold and 1,194,000 ounces of silver are recovered (227,000 ounces gold equivalent).

The project location and infrastructure are favorable for mine development, including: good access, favorable topography, a sparsely populated region, nearby availability of power and water, and previous disturbance of the site by mining. Improvements to necessary infrastructure (power, water, access, housing, etc.) should be reasonably inexpensive. Issues of archeological resources and a complication of the land status will need to be monitored as the program progresses, but none of these appears to constitute a significant impediment. There are no known environmental, social, or logistical impediments to developing a mine at Wind Mountain.

The following have been identified as risks:

- / The remaining resources to be mined in the PEA have a low average gold grade of 0.011 oz Au/ton. Due to the low grades, the relative accuracy of assays can cause errors in classification. In addition, the lower grades may exhibit lower metallurgical recovery. During operations, ore control will be a critical issue in making a successful operation.
- / A drop in metal prices can adversely impact the ability of the project to create a profit. This could be mitigated using a strategy of forward selling of gold and silver.
- / During column testing of dumps, some clays were found to hinder permeability of fluids. The material should be better identified through studies to determine the potential impact and mitigation procedures.

The following have been identified as opportunities:

- / The PEA uses a lagged timing for production of gold from leach pads. Shorter lag time could be obtained with careful management of leach pads and optimization of the spray time for ore placed.
- / Forward sales of gold and or silver can enhance the project economics.
- / Existing waste dumps were made using a 0.010 oz cutoff grade. Some of the existing dump material may be economic though selective mining may be required.
- / With the relatively short mine life, there may be a process equipment salvage value that can help enhance the project economics. Additionally, the project may lend itself to the use of used equipment, which would reduce initial capital requirements.

## 1.8 CONCLUSIONS AND RECOMMENDATIONS

The Wind Mountain property is a property of merit and warrants additional exploration as well as economic studies. The project location and infrastructure are favorable for mine development and should the project advance through feasibility with positive results, improvements to necessary infrastructure (power, water, access, housing, *etc.*) should be reasonably inexpensive. There are no known environmental, social, or logistical impediments to developing a mine at Wind Mountain. In addition, deeper targets of unoxidized mineralization and improved understanding of economic potential of historic waste dumps may add additional value to the project. Additional targets for oxidized mineralization have also been identified during geologic modeling. Two areas, North Hill and Zephyr, appear to be extensions of mineralization that have been down faulted by post-mineral faults; they have received very few drill holes to date.

To advance the Wind Mountain project, RESPEC has made several recommendations as follows:

- / CN shaker tests on drill-sample pulps should be completed to better identify spatial changes in recoveries (estimated cost is \$10,000);
- / Metallurgical modeling is needed to better define spatial recoveries (estimated cost is \$10,000);
- / Additional metallurgical studies to define metal recoveries at grades similar to the remaining resources (estimated cost is \$72,000);
- / Collection of baseline data in the proposed heap leach facility area (estimated cost is \$50,000);

- / Reconciliation work to better understand the bias between resource model and blasthole silver grades (estimated cost is \$20,000);
- / Pre-feasibility level geotechnical study is required to recommend pit slope parameters (estimated cost is \$60,000);
- / Hydrology study to identify water sources for the project (estimated cost is \$50,000);
- / Completion of a pre-feasibility study to determine the project economic viability (estimated cost is \$200,000);
- / Drilling of historic waste dumps and subsequent modeling to determine economic potential of dumps (estimated cost is \$100,000); and
- / Additional drilling to expand the North Hill and Zephyr targets (estimated cost is \$196,000).

The total estimated cost of the above recommendations is \$768,000

## 2.0 INTRODUCTION AND TERMS OF REFERENCE

RESPEC Company LLC ("RESPEC") has prepared this updated technical report and Preliminary Economic Assessment ("PEA") on the Wind Mountain gold-silver project, located in the state of Nevada, at the request of Bravada Gold Corporation ("Bravada"). Bravada is listed on the Toronto Venture Exchange ("TSX") under the symbol BVA and on the US Over-The-Counter QB exchange as BGAVQ and the Stuttgart Stock Exchange under the symbol BRT. Bravada was formed as a spin-off of Bravo Gold Corporation's Nevada property holdings and began trading in May 2010. In August 2010, Bravada announced its intention to merge with Fortune River Resource Corporation ("Fortune River"), who held the Wind Mountain project through its wholly owned subsidiary Rio Fortuna Exploration (U.S.), Inc. ("Rio Fortuna"), to form an amalgamated company that retained the name "Bravada Gold Corp."; the merged company began trading in January 2011. Rio Fortuna is now a wholly owned U.S. subsidiary of Bravada. Bravada is referred to in this report as "Fortune River," "Rio Fortuna," or "Bravada," as appropriate for the subject and date discussed.

The Wind Mountain gold-silver project is located in the northern portion of Washoe County, northwest Nevada. Gold and silver mineralization occurs at Wind Mountain in a low-sulfidation epithermal system. The Wind Mountain gold-silver project was operated from 1989 to 1999 under ownership of AMAX Gold Inc. ("AMAX") through its subsidiary Wind Mountain Mining, Inc. "AMAX" is used in this report to refer to both AMAX Gold Inc. and Wind Mountain Mining, Inc., except in Section 4.4, where Wind Mountain Mining, Inc. ("WMMI") is used for accuracy in discussing environmental permitting issues. AMAX Gold Inc. and Wind Mountain Mining, Inc. were merged with Kinross Gold USA, Inc. ("Kinross") in 1998.

The purpose of this technical report is to provide an updated mineral resource estimate and PEA for the Wind Mountain gold-silver project for Bravada. This report has been prepared in accordance with the disclosure and reporting requirements set forth in the Canadian Securities Administrators' National Instrument 43-101 ("NI 43-101"), Companion Policy 43-101CP, and Form 43-101F1, as well as with the Canadian Institute of Mining, Metallurgy and Petroleum's "CIM Definition Standards - For Mineral Resources and Reserves, Definitions and Guidelines" ("CIM Standards") adopted by the CIM Council on May 10, 2014.

### 2.1 PROJECT SCOPE AND TERMS OF REFERENCE

The mineral resources presented in this report were estimated and classified under the supervision of Michael S. Lindholm, C.P.G., Principal Geologist for RESPEC. Thomas L. Dyer, P.E., Principal Engineer for RESPEC, completed the mining, costs, and economic evaluation for the PEA. Metallurgy and processing methods were completed by Jeffrey L. Woods, SME MMSA, of Woods Process Services, LLC. Mr. Lindholm, Mr. Dyer and Mr. Woods are Qualified Persons under NI 43-101 and have no affiliations with Bravada except that of independent consultant/client relationship. No mineral reserves have been estimated for this report. Assistance with resource modeling and estimation included in portions of this report was provided by Jason Wickum, Project Geologist for RESPEC. Mr. Wickum is not a Qualified Person under NI 43-101. Mr. Lindholm is responsible for Sections 2 through 12, and 14 and their respective sections in the Section 1. Mr. Lindholm is also co-responsible with Mr. Dyer for sections 25 and 26. Mr. Woods is responsible for Sections 13, 17, and the processing portions of Section 21 as well as the respective sections of Section 1. Mr. Dyer takes full responsibility for the remaining sections of this report.

The scope of this study included a review of pertinent technical reports and data provided by Bravada to Mine Development Associates of Reno, Nevada (“MDA”) and more recently RESPEC. In 2019 MDA was acquired by and is now a division of RESPEC. These reports and data include information regarding the general setting, geology, project history, exploration activities and results, methodology, quality assurance, interpretations, drilling programs, and metallurgy. This report is based almost entirely on data and information derived from work done by historical operators and Fortune River/Bravada. The project was previously described in a 2007 technical report (Noble and Ranta, 2007) prepared for Fortune River, a 2010 technical report and Preliminary Economic Assessment (“PEA”) (Dyer and Noble, 2010), and a 2014 technical report and PEA prepared by Ristorcelli and Dyer (2014) of MDA.

The authors have reviewed much of the available data, made site visits, and have made judgments regarding the general reliability of the underlying data. Where deemed either inadequate or unreliable, the data were either eliminated from use or procedures were modified to account for lack of confidence in that specific information. Mr. Lindholm and Mr. Dyer have visited the project site, and Mr. Lindholm and Mr. Dyer have made such independent investigations as deemed necessary in their professional judgment to be able to reasonably present the conclusions, interpretations, and recommendations presented herein, and believe that the data provided by Bravada are generally an accurate and reasonable representation of the Wind Mountain gold-silver project.

Mr. Lindholm and Mr. Dyer conducted a site visit at the Wind Mountain property on April 13, 2022. The geology in and around the open pits was reviewed, the layout of pits and facilities was observed, and GPS collar checks were performed on selected drill sites. For the previous technical report by MDA (Ristorcelli and Dyer, 2014), Mr. Ristorcelli (at the time a Principal Geologist for MDA) conducted a site visit on March 28, 2012; he reviewed the pits, outcrops, dumps, and leach pads. Mr. Dyer (at the time an Engineer for MDA) conducted a site visit on February 3, 2010, and reviewed the pits, dumps, and leach pads.

The effective date of the current mineral resources that support the PEA is October 4, 2022, and the effective date of this technical report is January 20, 2023

## 2.2 FREQUENTLY USED ACRONYMS, ABBREVIATIONS, DEFINITIONS, AND UNITS OF MEASURE

In this report, measurements are given in English units, except where the original information was reported in metric units (geophysics). Assays have been reported in the manner in which they were received; all early work is in English units (*e.g.*, oz Au/ton), and more recent work is reported in ppm.

Currency, units of measure, and conversion factors used in this report include:

**Linear Measure:**

1 centimeter	= 0.3937 inch	
1 meter	= 3.2808 feet	= 1.0936 yard
1 kilometer	= 0.6214 mile	

**Area Measure:**

1 hectare	= 2.471 acres	= 0.0039 square mile
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**Capacity Measure (liquid):**

1 liter	= 0.2642 US gallons
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**Weight:**

1 tonne (metric)	= 1.1023 short tons	= 2,205 pounds
1 kilogram	= 2.205 pounds	

**Currency** - Unless otherwise indicated, all references to dollars (\$) in this report refer to currency of the United States.

**Frequently used acronyms and abbreviations:**

AA	atomic absorption spectrometry
Ag	silver
As	arsenic
Au	gold
Bi	bismuth
BLM	United States Department of the Interior, Bureau of Land Management
BMRR	Bureau of Mining Regulation and Reclamation
Cu	copper
FA	fire-assay analysis
ft	feet
G&A	general and administrative
g	grams
g Ax/t	grams gold or silver per tonne
Hg	mercury
ICP	inductively coupled plasma method of analysis
in	inches
km	kilometer
lb	pound (2000lb to 1 ton, 2204.6lb to 1 tonne)
IRR	internal rate of return
kwh	kilowatt hour
LOM	life of mine
m	meters
mi	mile
NDEP	Nevada Division of Environmental Protection
NPV	net present value
NSR	net smelter return
oz	troy ounce (12oz to 1 pound)
oz Ax/ton	troy ounce gold or silver per short ton
Pb	lead
PEA	preliminary economic assessment
ppm	parts per million (1ppm to 0.0292oz/ton)
RC	reverse circulation drilling method
ROM	run of mine
Se	selenium
TI	thallium
Ton	short (imperial) ton



tonne	metric ton
Tpd	(short) tons per day
USD	currency of the United States
USGS	United States Geologic Survey
Zn	zinc

### **3.0 RELIANCE ON OTHER EXPERTS**

The authors are not experts in legal matters, such as the assessment of the legal validity of mining claims, private lands, mineral rights, and property agreements. The authors rely on information provided by Bravada as to the title of the unpatented mining claims, and private mineral rights comprising the Wind Mountain project, the terms of property agreements, and the existence of applicable royalty obligations. Sections 4.2 and 4.3 are based on information provided by Bravada and their associates, and the authors offer no professional opinions regarding the provided information.

The authors have relied fully on Bravada to provide complete information concerning the legal status of the company and related companies, as well as current legal title and material terms of all agreements relating to the property. RESPEC did not conduct any investigations of the social-economic issues associated with the Wind Mountain gold-silver project, and the authors are not experts with respect to this issue.

The authors are not experts with regard to environmental permitting or liabilities. For Section 4.4 and Section 20.0 on Environmental Considerations, the authors relied on Debra W. Struhsacker, an environmental permitting and government relations consultant, who provided expertise for environmental and permitting issues. Ms. Struhsacker is a Certified Professional Geologist, Licensed Geologist, and Nevada Certified Environmental Manager (EM No. 1078), as defined by Nevada revised statutes and as designated by the Nevada Department of Conservation and Natural Resources, Division of Environmental Protection.

## 4.0 PROPERTY DESCRIPTION AND LOCATION

The authors are not experts in land, legal, environmental, and permitting matters and express no opinion regarding these topics as they pertain to the Wind Mountain project. Debra Struhsacker, an expert in environmental and permitting matters, prepared Section 4.4. Mr. Lindholm and Mr. Dyer do not know of any significant factors and risks that may affect access, title, or the right or ability to perform work on the property, beyond what is described in this report.

### 4.1 LOCATION

The Wind Mountain gold-silver project is located at the northern end of the Lake Range north-northeast of Pyramid Lake in northern Washoe County, Nevada (Figure 4-1). The project area is flanked to the west and north by the San Emidio Desert. The Wind Mountain property lies approximately 20mi by road south of the small town of Gerlach, Nevada and approximately 65mi by road north of the larger town of Fernley, Nevada which is about 30mi east of Reno, Nevada. It is approximately two hours by car north-northeast of Reno.

The topographic map covering the project area is the San Emidio Desert North, Nevada 7.5-Minute quadrangle map at 1:24,000-scale, published by the U.S. Geologic Survey. The approximate center of the project area is latitude 40° 25.75' North and longitude 119° 23.6' West.

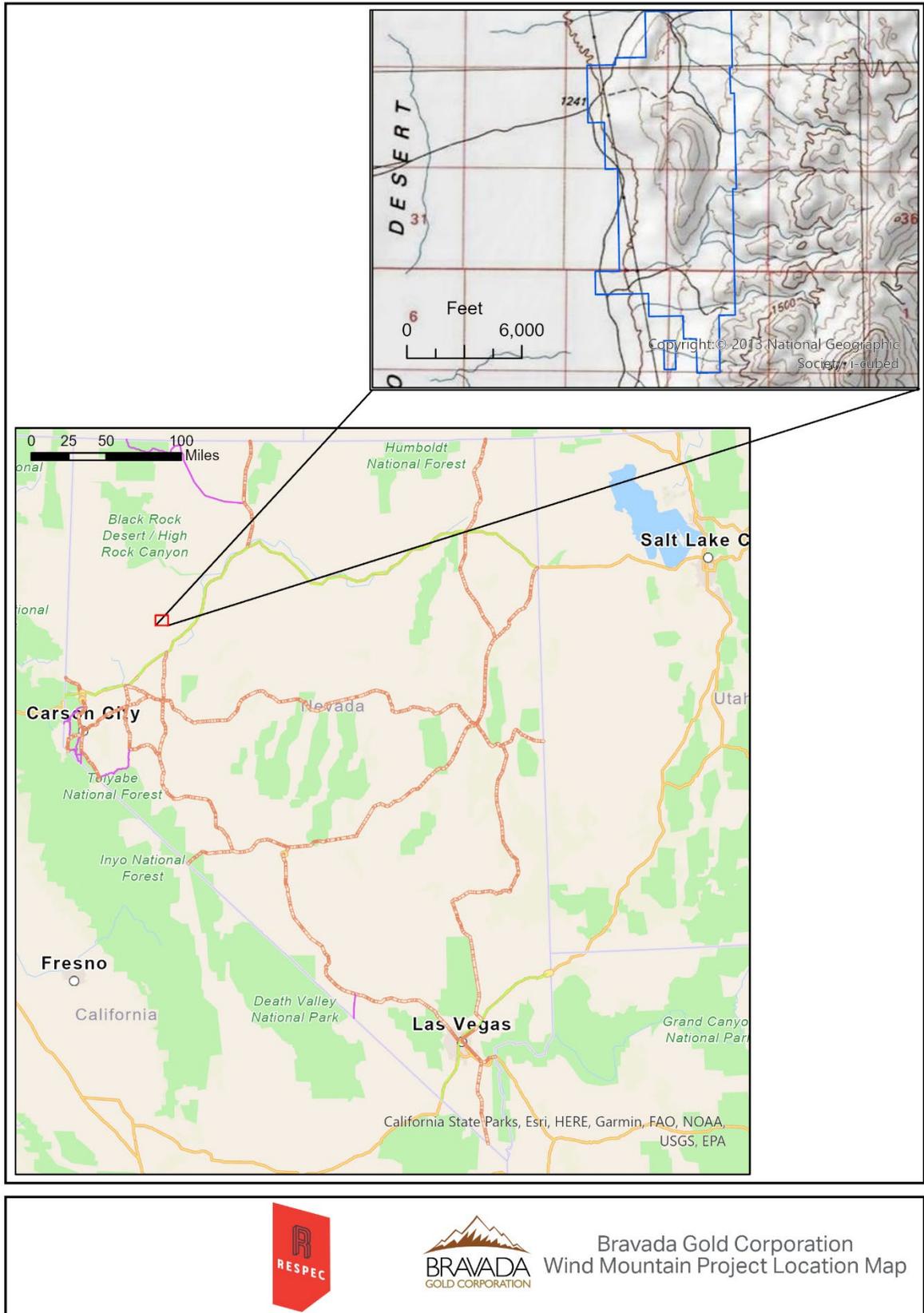


Figure 4-1. Wind Mountain Location Map in Nevada

## 4.2 LAND AREA

The Wind Mountain project area consists of 124 unpatented lode mining claims, which are shown in Figure 4-2 and listed in Appendix A, covering an area of approximately 2,480 acres. All claims are located on U.S. federal land managed by the Winnemucca District of the Bureau of Land Management (“BLM”). With the exception of claim WM 506, the claims are in a contiguous block that is located in Sections 3, 4, and 10, T.29N., R.23E., and in Sections 21, 22, 27, 28, 33 and 34, T.30N., R.23E., of the Mount Diablo Base and Meridian. Each claim within the property boundary is identified by 2in by 2in by 4ft wood posts marked with a scribed aluminum tag as required by Nevada statutes. The claims have not been surveyed by a mineral land surveyor, but they are registered and recorded with both the BLM and Washoe County.

Bravada leases 10 of the claims as described in Section 4.3. The remaining 114 claims are owned by Bravada’s wholly owned subsidiary Rio Fortuna Exploration (U.S.), Inc. There are no known conflicts or potential conflicts of land ownership in the immediate project area.

Ownership of the unpatented mining claims is in the name of the holder (locator), subject to the overall title of the United States of America, under the administration of the U.S. Bureau of Land Management (“BLM”). Under the Mining Law of 1872, which governs the location of unpatented mining claims on federal lands, the locator has the right to explore, develop, and mine minerals on unpatented mining claims without payments of production royalties to the U.S. government, and subject to the surface management regulation of the BLM. The 124 unpatented lode claims at the Wind Mountain project include rights to all locatable subsurface minerals. Currently, annual claim-maintenance fees of \$165 per claim are the only federal payments related to unpatented mining claims. Annual costs for the unpatented mining claims including maintenance fees for BLM, Intent to Hold fees for Washoe County and lease payments are \$46,966.00 (Table 4-1). Bravada reports that all federal fees to maintain the claims have been paid through September 1, 2023. County fees due by November 1, 2022 have been paid, and the next payment will be due on the same day in 2023.

Table 4-1 Summary of Annual Property Holding Costs

Claim Type	Fee Type	Fees
Unpatented Lode Claims	Annual Federal Claim Fees	\$20,460
Unpatented Lode Claims	Annual County Recording Fees	\$1,506
Claims Leased from H.J. Fuller	Lease Payments	\$25,000
Total Holding Fees		\$46,966

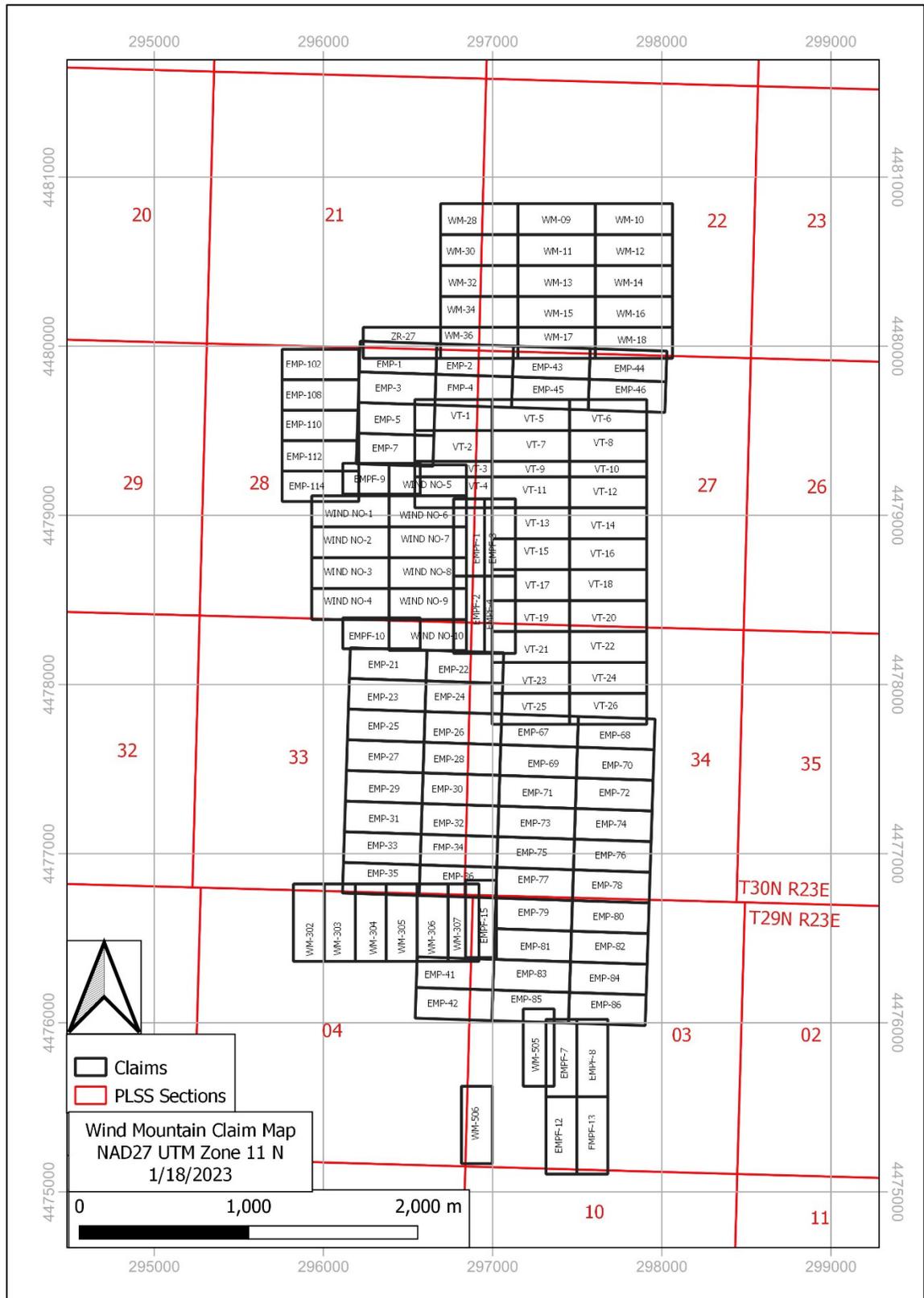


Figure 4-2. Land Status Map  
(Provided by Bravada, 2023)

### 4.3 AGREEMENTS AND ENCUMBRANCES

Fortune River initially acquired 86 unpatented claims (1,760 acres) in February 2006 from Agnico-Eagle (USA) Ltd. ("Agnico-Eagle"), a subsidiary of Agnico-Eagle Mines Ltd. Agnico-Eagle had staked the property in January 2004 after AMAX abandoned the Wind Mountain project claims. The Agnico-Eagle/Fortune River agreement created a one-mile area-of-interest around the 86 lode claims, and under the terms of the agreement, Fortune River acquired a 100% interest in the claims by spending in excess of \$2.0 million. All 124 of the presently owned claims are within this area of interest. Agnico-Eagle held a right to either accept a 2% net smelter return ("NSR") royalty, of which 1% can be purchased for \$1.0 million, or elect to earn back 60% interest by spending \$4.0 million over a four-year period and producing a bankable feasibility document. Agnico-Eagle could have earned another 10% interest, for a total of 70%, by loaning or arranging for financing of Fortune River's share of capital required for mine development and construction costs. Fortune River spent approximately \$2.2 million fulfilling their obligations to earn 100% interest in the project. On November 26, 2008, Agnico-Eagle acknowledged Fortune River's fulfillment of the agreement and stated in writing that they "*have decided not to exercise our back-in option. Instead we elect to reduce our interest to a royalty position as described in our exploration agreement.*"

Fortune River leased the WIND NO 1 through 10 unpatented claims that lie along the western portion of the Wind Mountain property in February 2007 from Harold L. Fuller. The lease agreement requires annual minimum payments beginning at \$3,000 on signing and escalating to a maximum of \$25,000 on the fifth anniversary date of the agreement, and payment of a 3% NSR royalty. All annual payments subsequent to the initial payment are advanced minimum royalties, which can be subtracted from any future royalty payment. Up to 2% of the NSR royalty may be purchased at the rate of \$1 million per percentage point. The Wind claims are within the Agnico-Eagle/Fortune River one-mile area-of-interest of the Agnico-Eagle property and, at their discretion, would be included in the terms of the Agnico-Eagle agreement.

### 4.4 ENVIRONMENTAL CONSIDERATIONS

Debra Struhsacker, an environmental permitting and government relations consultant, provided the following information on environmental liabilities and permitting.

Bravada's U.S. subsidiary, Rio Fortuna, is conducting the exploration at Wind Mountain, and environmental permits are in Rio Fortuna's name. For that reason, "Rio Fortuna" is used throughout this section.

#### 4.4.1 ENVIRONMENTAL LIABILITIES

There are no known environmental liabilities associated with the exploration activities at the Wind Mountain site that Rio Fortuna has conducted since 2010. Much of Rio Fortuna's exploration activities, for which approval was obtained from the BLM, have been located on previously disturbed land created by the previous operator, WMMI. Rio Fortuna is responsible for reclaiming the limited, new surface disturbance created in conjunction with its exploration drilling activities. There were five additional drilling sites and access roads constructed in 2022 by Bravada, which are scheduled for reclamation in early 2023. The company has already reclaimed some of the surface disturbance it created during its exploration program. Reclamation of the remaining surface disturbance for which Rio Fortuna is responsible is guaranteed by a \$88,184 reclamation bond that Rio Fortuna has provided to the BLM. In addition to reclamation of land disturbed by exploration activities, a significant portion of the bond covers the costs associated with

removing the perimeter fence. In April 2011, Rio Fortuna entered into a purchase and sale agreement with WMMI to take over the responsibility for maintaining and ultimately removing the perimeter fence around the former mine site.

In the 1980s to early 1990s timeframe when WMMI developed the Wind Mountain mining and heap leach processing project, it was a subsidiary of AMAX. WMMI is now a wholly owned subsidiary of Kinross. Kinross has successfully closed and reclaimed the Wind Mountain heap leach facilities. In 2009, the Nevada Division of Environmental Protection/Bureau of Mining Regulation and Reclamation (“NDEP/BMRR”) closed the Water Pollution Control Permit for the site and authorized Kinross to plug and abandon the monitoring wells and the dosing tanks at the leach field down gradient from the reclaimed heaps. On August 12, 2011, the Winnemucca District Office/Black Rock Field Office of BLM issued a decision stating that WMMI had satisfied its reclamation responsibilities for the site. Therefore, BLM closed WMMI’s Plan of Operations file and returned the reclamation bond to WMMI. With the closure of the Plan of Operations and the Water Pollution Control Permit and abandonment of the monitoring wells, Kinross is no longer responsible for the Wind Mountain site. Rio Fortuna now is responsible for the only remaining reclamation obligation associated with the former mine site which is to maintain and ultimately remove the perimeter fence.

Prior to developing new mining and heap leach facilities at Wind Mountain, Rio Fortuna should collect adequate baseline data to document the extent of the previous mining facilities, and to determine whether there are any potential residual effects of the WMMI heap leach processing activities. These data should include information about the depth to groundwater and groundwater quality, the amount of previous surface disturbance which has been reclaimed, and the footprints associated with the existing open pit mines, and waste rock dumps.

Rio Fortuna will also have to hire qualified contractors to perform environmental baseline studies to collect the data needed to support the permit applications and environmental analysis required by the federal National Environmental Policy Act (NEPA) for a new mine located on BLM-administered public lands. The baseline studies that will likely be required include but are not limited to the following: waste characterization tests to determine if the project waste rocks have the potential to generate acid or leach metals; cultural resources surveys; wildlife surveys; air quality monitoring; and hydrogeologic studies to determine the elevation of the water table under the pit expansion areas, whether there is potential for the expanded pits to become a post-mining pit lake, and groundwater quality.

Prior to collecting the baseline data that will be needed to support permitting, Rio Fortuna will need to participate in pre-application planning meetings with BLM and NDEP/BMRR to discuss the scope of the required baseline studies. Both agencies will need to approve work plans for conducting the new baseline studies.

Rio Fortuna initiated wildlife and cultural resources surveys in 2011. These studies will need to be updated.

#### **4.4.2 PERMITS REQUIRED**

A Notice is the authorization BLM uses to approve surface exploration activities that disturb fewer than five acres. BLM will require a Plan of Operations if Rio Fortuna’s exploration activities disturb five or more acres.

In January 2022, BLM approved Rio Fortuna's most recent amendment to its Notice No. N-082450 for its exploration activities at the Wind Mountain gold-silver project. The 2022 amended Notice authorizes 3.98 acres of surface disturbance for 2,200ft of road, 29 drill sites, and 4,820ft of overland travel. The reclamation bond for this work includes financial assurance for one drill hole to remain open to a maximum depth of 2,000ft; and financial assurance for future removal of the perimeter fence.

To date, Rio Fortuna has drilled 122 Reverse Circulation (RC) drill-holes, including the three holes drilled after the effective date of the database for this technical report. Two other sites were constructed in 2022, but the planned holes were not drilled. Bravada estimates the total disturbed area as of 2022 to be 3.98 acres. Future exploration drilling will require an amendment to the Notice or a Plan of Operations if more than five acres of surface disturbance will be required for the next exploration phase. It may take BLM one to two months to approve an amended Notice. Approval of a Plan of Operations for an expanded drilling program will likely take nine to 12 months. NDEP/BMRR will require a Reclamation Permit if the exploration work disturbs more than five acres of land.

Kinross transferred ownership of the two water wells that were used to support the previous mining and heap leaching operation to the nearby Empire Farms LLC ("Empire Farms"). Rio Fortuna currently obtains water for its drilling activities from the Empire Farms. The Company will need to acquire more water for a mining and heap leaching project. The most expeditious way for Rio Fortuna to obtain water will probably be to negotiate a water purchase agreement from a nearby source such as the Empire Farms or Ormat Technologies, Inc.'s ("Ormat") nearby San Emidio geothermal plant.

Like all Nevada mining projects on BLM-administered public land, renewed mining and mineral processing activities at the Wind Mountain gold project will require a number of federal and state permits. BLM will have to approve a Mine Plan of Operations. Several state permits will be required from the NDEP/BMRR. Washoe County will have to grant a Special Use Permit and issue three air quality permits. Section 20.3 describes the permitting and bonding requirements in more detail. Table 20-1 lists the permits that are likely to be required to build and operate new surface mining and heap leaching facilities at Wind Mountain.

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

The information in this section is summarized from Ristorcelli and Dyer (2014), which was in turn taken from Noble and Ranta (2007).

### **5.1 ACCESS**

The Wind Mountain gold-silver project site is accessible year-round barring any unusual snow accumulation. The project is accessed via the Wadsworth exit on Interstate 80, approximately 30mi east of Reno. Paved Route 447 passes northward through Wadsworth and Nixon, then 65mi from Interstate 80 intersects a paved and gravel road that provides access to Empire Farms. After traveling approximately 3.5mi west from Route 447, a crossing gravel road continues two miles south to the project area.

Direct access to the property is by existing roads that are permitted and bonded by the Notice filed with the BLM. Most of the project area is inside a fenced enclosure which includes the Wind and Breeze pits and is controlled by Bravada.

### **5.2 PHYSIOGRAPHY**

The Wind Mountain gold-silver project lies near the western edge of the Basin and Range physiographic province, characterized by generally north-trending, fault-bounded ranges separated by sediment-filled valleys. The elevation on the property ranges from approximately 4,000ft to 4,800ft above sea level; the currently identified gold-silver resources occur between ~2,800ft to 4,800ft elevation. Topography varies from moderate and hilly terrain with rocky knolls and peaks, to steep and mountainous terrain in the nearby higher elevations of the Lake Range.

The vegetation throughout the project area is typical of lower elevations of the Basin and Range Province. The property is also within the Great Basin salt desert shrub ecological zone typified by alkaline to saline soils and low shrubs, such as greasewood, shadscale, rabbitbrush, sagebrush, and four-wing saltbush. Cheat grass is prevalent throughout the area, and there are no trees on the site. Disturbed portions of the project area have been ripped and seeded. Cheat grass, and forbs (herbaceous flowering plant) in some areas, have been established.

### **5.3 CLIMATE**

The site is located in the arid San Emidio Desert, with 4in to 6in of precipitation annually, and evaporation well in excess of 40in. This relatively low elevation produces hot and dry summers with high temperatures in the 90 to 110°F range. Winters can be cold and windy with temperatures dropping to -30°F, with most precipitation falling as snow in the winter months. During the period from 1989 through 1992, the now-closed Wind Mountain mine operated throughout the year with only limited weather-related interruptions.

## 5.4 LOCAL RESOURCES AND INFRASTRUCTURE

The nearest motel, restaurant, and gas station are located 20mi north of the property on Route 447 in the nearby town of Gerlach. A greater variety of accommodations is available in Fernley, about 65mi to the south on Interstate 80 just east of Wadsworth, which has the nearest available services for both mine development work and mine operations. Housing, fuel, and other infrastructure are available in Fernley, and some supplies and services are available in the Pyramid Lake Paiute Tribe's reservation towns of Nixon and Wadsworth.

High-capacity water wells exist in the nearby San Emidio Desert. A major electrical transmission line exists near the western boundary of the fenced area, and an electrical substation is located on the south end of the project. Transportation of supplies would be primarily by truck from Fernley. Rail service is available in both Gerlach and Fernley. Reno and Sparks are about 100mi from the project area by road and would be major logistics centers for any materials required for mine development at the Wind Mountain project.

The previously active Wind Mountain gold mine site has been reclaimed to modern standards. The project boundary is fenced for public safety, and access to the pits and heap leach areas is gained through a locked gate controlled by Bravada. No buildings or local power lines associated with mining remain. Water for the historical mining operations was supplied from two water wells in the valley approximately 3,500ft south of the former mine site.

## 5.5 GEOTHERMAL ISSUES

Ormat operates the San Emidio geothermal plant approximately 4.3mi south of the property that was formerly operated by Empire Geothermal Power LLC. A linear trend of recent surficial deposits of tufa (calcareous precipitate), native sulfur and cinnabar occurrences, and Ormat's geothermal well define a north-trending segment of a range-front fault approximately 4.5mi long. Along the trend two wells, located approximately 3,500ft southwest of the Wind pit, produced water for the mine. The casing of one of the wells leaked steam and was coated with native sulfur. Fortune River geologists and plant personnel have indicated that the temperature of the water in the two wells at that time was approximately 240° F. Fortune River geologists interpreted the north-trending feature as a water-saturated fault zone (Crist, 2007a). All of the Wind Mountain targets are at least 1,800ft east of the fault zone.

The Wind Mountain fault zone is approximately 3,300ft east of the range-front fault and locally contains banded calcareous fault fill. This calcareous deposit is mostly within an open fracture in Tertiary volcanoclastic rocks. The calcareous deposits along the Wind Mountain fault zone have undergone an unknown amount of erosion. Horizontal dips of some of the banding suggest that the calcareous precipitates were either deposited at the paleo-surface or in a very wide, open fracture. The age of the Wind Mountain fault zone is uncertain; however, Fortune River geologists interpreted it as older than the range-front fault (Crist, 2007a).

The elevation of the two former water supply wells for the Wind Mountain mine and the Quaternary calcareous deposits on the range-front fault is approximately 4,100ft, and the lowest bottom elevation of the existing Wind pit is approximately 4,200ft. Despite the similar elevation, no evidence of recent hot spring activity was seen in any of the pit. Fortune River contractors and employees visited the pit several times on days when the temperature was below 32° F, and no evidence of steam effluent was observed from the walls or bottom of the pit. In discussions with Fortune River geologists, the former exploration and mine staff of

AMAX indicated that no significant water of any temperature was intersected in drilling beneath the deposit. The water table was generally 500ft or more below the former surface (Crist, 2007a). There was no direct evidence of hot water at depths that would potentially prohibit exploration or underground mining.

Fortune River drilled several relatively deep drill holes on the Wind Mountain fault zone in 2008. At depths below about 500ft, several holes penetrated strongly fractured silicified rock near the Wind Mountain fault zone that was saturated with ground water. Water effluent rates from the reverse-circulation ("RC") drill rig were crudely measured by recording the length of time to fill a five-gallon bucket. At depths of about 1,000ft the flow approached 120 gallons per minute. International Directional Services ("IDS") conducted down-hole surveying of the holes that included temperature measurements. The highest temperature measurement obtained by IDS was 114° F at a true vertical depth of 1,235ft in a hole that tested the Deep Min target. Sufficient drilling has been done by AMAX, Fortune River, and Bravada to indicate that geothermal conditions are unlikely to hinder mining of the established near-surface resources in the Breeze and Wind deposits. Down-hole temperatures should continue to be measured in future drilling programs to define geothermal conditions in deeper areas that could potentially be mined via open pit or underground.

The possibility of high geothermal temperatures at mineable depths beneath the Wind Mountain property cannot be fully discounted, however there is no evidence at this time that would indicate prohibitive water conditions exist that would discourage exploration and potential future development on the property.

## 6.0 HISTORY

The information in this section is summarized from Ristorcelli and Dyer (2014), which was in turn taken from Noble and Ranta (2007). This section outlines the historical exploration activities conducted at the Wind Mountain project prior to acquisition by Fortune River. Exploration by both Fortune River and Bravada is described in Section 9.0.

### 6.1 EXPLORATION HISTORY

Historical exploration of the Wind Mountain property prior to mining was summarized by Wood (1990). Past exploration activities included mapping, surface sampling, drilling, and development of a geologic model that led to identification and delineation of the Wind Mountain deposit and production of precious metals.

The Wind Mountain property is not located within any of the established mining districts of Nevada. Mining claims staked in the area around 1900 contained prospect pits exposing native sulfur, cinnabar and opal. By the 1930's, adits and prospects were developed in a small area one kilometer south-southeast of Wind Mountain for minor gold and silver. Minor prospecting for sulfur, cinnabar, gold, silver and montmorillonite continued through the 1970's. No records of more modern prospecting activities are known until 1978. In 1979, TMB Associates staked the core claim block and purchased several opalite claims (Wood, 1990).

In 1980, AMAX Exploration, Inc., and later AMAX Gold Inc., leased the Wind Mountain property as a low-grade silver-gold target, drilled ten holes and then relinquished the property in 1982. Santa Fe Pacific Gold Corp. ("Santa Fe") drilled 32 drill holes in 1984, and Chevron Resources ("Chevron") drilled six holes in 1982 and conducted modern exploration activities on portions of the current property position. AMAX returned in 1987 and conducted the most extensive exploration program on the property to date, including drilling 416 holes for a total of 145,610ft. Many significant intercepts of gold are reported in the AMAX drill-hole database. A total of 464 holes, which are summarized in Section 10.2, were drilled on the property from 1980 through 1991 (Noble and Ranta, 2007).

A substantial portion of the mineralized material delineated at the Wind Mountain project by historical operators was mined by AMAX in two small- to medium-sized open pits (Breeze deposit and Wind deposit) and processed by heap leaching. The mining took place from April 1989 through January 1992, with leaching and rinsing continuing until 1999 (see Section 6.3). AMAX was purchased by Kinross in 1998. Many historical drill intercepts indicate there is gold and silver mineralization remaining beneath and adjacent to the mined areas.

The claims at the Wind Mountain project were dropped by Kinross, and Agnico-Eagle staked claims in January 2004 covering the disturbed mine site and adjacent prospective ground. Fortune River acquired the property in February 2006 through an earn-in agreement with Agnico-Eagle (see Section 4.3). Kinross provided Fortune River with digital data for most of the exploration, development, and blasthole drilling conducted by AMAX, and additional paper files were acquired from a previous land owner.

Fortune River focused on exploring for both near-surface oxide gold mineralization and deeper high-grade precious-metal mineralization. Bravada acquired the Wind Mountain property through its merger with

Fortune River in January 2011. Fortune River's and Bravada's exploration efforts are described in Section 9.0.

## 6.2 HISTORICAL MINERAL RESOURCES AND RESERVE ESTIMATES

### 6.2.1 AMAX HISTORICAL RESOURCE ESTIMATE

AMAX announced that the Wind Mountain deposit contained 15 million tons averaging 0.021oz Au/ton and 0.42oz Ag/ton in 1988 (Nevada Bureau of Mines and Geology, 1995). This estimate pre-dates mining and is reported here for the historical record only. A significant portion of the material reportedly contained in the deposit has been mined, so the estimated quantity is no longer valid and cannot be upgraded as current mineral resources. AMAX's estimate also predates the CIM Definition Standards and NI 43-101, and therefore could not reference the level of study or resource and reserve categories as currently applied. RESPEC does not know the modeling or estimation methods applied to prepare the estimate, and a Qualified Person has not done sufficient work to classify it as a current mineral resource estimate as defined in Sections 1.2 and 1.3 of NI 43-101. Bravada is not treating the historical estimate as current mineral resources or reserves.

### 6.2.2 FORTUNE RIVER MINERAL RESOURCES ESTIMATE

In December 2007, Ore Reserves Engineering (Noble and Ranta, 2007) produced "a new, 43-101 compliant resource model" in a technical report titled "Technical Report on the Wind Mountain Gold Deposit". The report disclosed a "total measured plus indicated resource for the project ... estimated as 33.7 million tons above a cutoff grade of 0.0075 opt Au, with an average grade of 0.012 opt gold, that contain 406,000 ounces of gold." The report included "an inferred resource in the study area estimated as 9.8 million tons above a cutoff grade of 0.0075 opt Au, with an average grade of 0.009 opt gold, that contain 92,000 ounces of gold." Grades were capped to 0.10oz Au/ton before estimation. No reserves were defined in association with the 2007 resources.

To produce the 2007 resource estimate, Ore Reserves Engineering built a block model with block sizes of 25ft by 25ft by 25ft. A set of mineral envelope wire frames were modeled at a cutoff of 0.006oz Au/ton on sections and level plans. Drill holes were bench composited to the 25ft vertical dimension of the blocks, and "Gold grades were capped to 0.10 opt Au before estimation." Gold and silver block grades were estimated using inverse distance to the fourth and second power in the "mineralized zones" and "low-grade zones," respectively. Applied search ellipse parameters were derived using variography, and "Resource classes were defined using the kriging variance from a point kriging run."

Based on the information provided in the technical report, RESPEC believes that Noble and Ranta's 2007 resource estimate was not fully compliant with CIM Definition Standards and NI 43-101 as currently applied. The primary omission that would have to be performed for compliance would be to demonstrate the deposit "*has reasonable prospects for eventual economic extraction*" by constraining the resource within an optimized open pit. It should be noted that reporting within an optimized pit was not a requirement in 2007 as it is at the time of the current technical report. For Noble and Ranta's resource estimate, a Qualified Person did do sufficient work to classify it as a current mineral resource estimate as defined in Sections 1.2 and 1.3 of NI 43-101, in that Noble and Ranta considered distance from and number of samples in resource classification. However, in RESPEC's opinion, Noble and Ranta did not consider other relevant issues, such

as the absence of supporting documentation and QA/QC for some historical data, their demonstrated inconsistencies in silver grades in exploration versus blasthole data, and minimal metallurgical data at depth. Also, potential higher recoveries, and therefore cutoff grades, associated with unoxidized material was not taken into account in resource tabulations. Regardless, Bravada is not treating the historical estimate as current mineral resources or reserves.

### **6.2.3 PREVIOUS BRAVADA MINERAL RESOURCES ESTIMATES**

In 2012, RESPEC (then MDA) prepared a 43-101 technical report and PEA of the Wind Mountain gold-silver project for Bravada, which was updated in 2014 (Ristorcelli and Dyer, 2014). RESPEC applied modeling and estimation methodologies similar to those described in Section 13.0, and a Qualified Person did sufficient work to classify the resources as a current mineral resource estimate as defined in Sections 1.2 and 1.3 of NI 43-101. However, the resource would not be considered fully compliant according to CIM Definition Standards and NI 43-101 as currently applied, because resources were not pit constrained.

The 2014 estimate was updated in 2022 with 42 new drill holes to produce the current model and resources reported in Section 13.0, so the 2014 technical report is superseded and no longer relied upon by Bravada as current mineral resources or reserves. The reported resources from RESPEC's 2014 estimate (Ristorcelli and Dyer, 2014) are not provided here, however, the total resources unconstrained by pits in 2014 and 2022 are similar.

## **6.3 HISTORIC PRODUCTION**

Production records, received from Kinross, indicate that a total of 299,259 ounces of gold and 1,769,426 ounces of silver were produced and sold from 1989 through 1999, when all heap leaching, rinsing of pads, and final carbon cleanup were completed.

In the Wind Mountain project area, both the Breeze and Wind deposits were defined by drilling and partially mined. The annual gold and silver production from two pits at Wind Mountain, as reported by AMAX, is tabulated in Table 6-1.

Table 6-1 Wind Mountain Gold Deposit Annual Gold and Silver Production  
**Wind Mountain Mine 1989-1999**

(From Noble and Ranta, 2007)

Year	Gold Ounces	Silver Ounces	Ag: Au Ratio Ounces Produced	Comments
1989	30,903	334,768	10.83	Mining & Leaching
1990	81,733	560,802	6.86	Mining & Leaching
1991	91,063	405,149	4.45	Mining & Leaching
1992	54,689	297,403	5.44	Mining & Leaching
1993	19,296	86,514	4.48	Leaching
1994	10,513	72,609	6.91	Leaching
1995	5,312	7,487	1.41	Rinsing
1996	4,205	1,731	0.41	Rinsing
1997	964	202	0.21	Rinsing
1998	-	-	-	Heavy Precipitation
1999	581	2,760	4.75	Passive Rinsing
Total	299,259	1,769,425	5.91	

Highlights of the mining by AMAX are as follows:

- / Mining took place from April 1989 through January 1992 by conventional loader and truck operations in two open pits. Prior to completion of permitted pits, mining ceased due to rising costs, low metal prices, and disputes over royalty positions.
- / The stripping ratio was low at 0.41 tons of waste were mined for each ton of ore.
- / The mining cutoff grade was 0.010oz Au/ton.
- / Approximately 24.6 million tons of ore averaging 0.018oz Au/ton were mined for a total of 433,194 ounces of gold prior to placement on the heap-leach pads.
- / The Wind Mountain mine was one of the lowest-grade producers at the time. It was profitable because the stripping ratio and process costs were low, and cyanide-leaching recoveries were high.
- / Two leach pads were in operation. About 39% of the material placed on the pads was crushed, and the other 61% of ore was hauled as run-of-mine (Noble and Ranta, 2007).
  - » Crushed ore 8.9 million tons (Pad 1)
  - » Run-of-mine ore 13.7 million tons (Pads 1 & 2)
  - » TOTAL 22.6 million tons @ 0.018oz Au/ton
- / Gold production took place from the spring of 1989 through June 1997. Cyanide was added to leach solutions for two years (into 1994) after mining ceased, then rinsing and residual gold recovery continued for about three more years (until June 1997).
- / Historical gold recovery was 67% through active leaching, and total gold recovery was 69% after rinsing of leach pads.

- / Silver head grades and recoveries were not reported in production records, but based on resource reconciliations, recovery of silver was probably less than 25%. Approximately 5.9 ounces of silver were recovered for every ounce of gold.
- / Gold leached relatively quickly. Over 85% of the total produced was recovered during active mining and placement of material onto the pads.
- / Active rinsing had ceased by 1997, but a heavy snow year in 1998 caused additional water to migrate through the heap-leach pads. The water collected in the ponds was processed, resulting in an unplanned recovery of 581 ounces of gold in 1999.

## 7.0 GEOLOGIC SETTING AND MINERALIZATION

This section has been taken from previous technical reports (Noble and Ranta, 2007; Ristorcelli and Dyer, 2014), published geology and mapping (Bonham and Papke, 1969; Moore, 1979; Rhodes et al., 2011), and information from Bravada.

### 7.1 REGIONAL GEOLOGY

The Wind Mountain gold property is located in the Lake Range in the Basin and Range physiographic province (Figure 7-1). The Lake Range is underlain by Triassic and Jurassic metamorphic rocks of the Nightingale sequence (Bonham and Papke, 1969). These rocks are exposed along the northern part of the range and consist of phyllite, minor slate and schist and intercalated carbonate and quartzite horizons. Nightingale sequence metasedimentary rocks crop out in the southern portion of the Wind Mountain property. Regional metamorphism, faulting, and erosion of these rocks produced highly irregular topography with a well-developed pediment in the Wind Mountain area prior to Miocene volcanism and volcanoclastic deposition (Wood, 1990). Basaltic to dacitic volcanic rocks of the Miocene Pyramid sequence unconformably overlie the Mesozoic rocks on the south and east sides of the Lake Range. In the northern part of the range, the Pyramid sequence is overlain by volcanoclastic sedimentary rocks correlative with the Truckee Formation of the upper Miocene epoch (Bonham and Papke, 1969). The western margin of the Lake Range is bounded by a major fault zone, which localized extensive geothermal activity that resulted in extensive hydrothermal alteration and deposition of the Wind Mountain gold deposit (Wood, 1990). All of the previously mined mineralization at Wind Mountain is hosted by Tertiary volcanoclastic rocks.

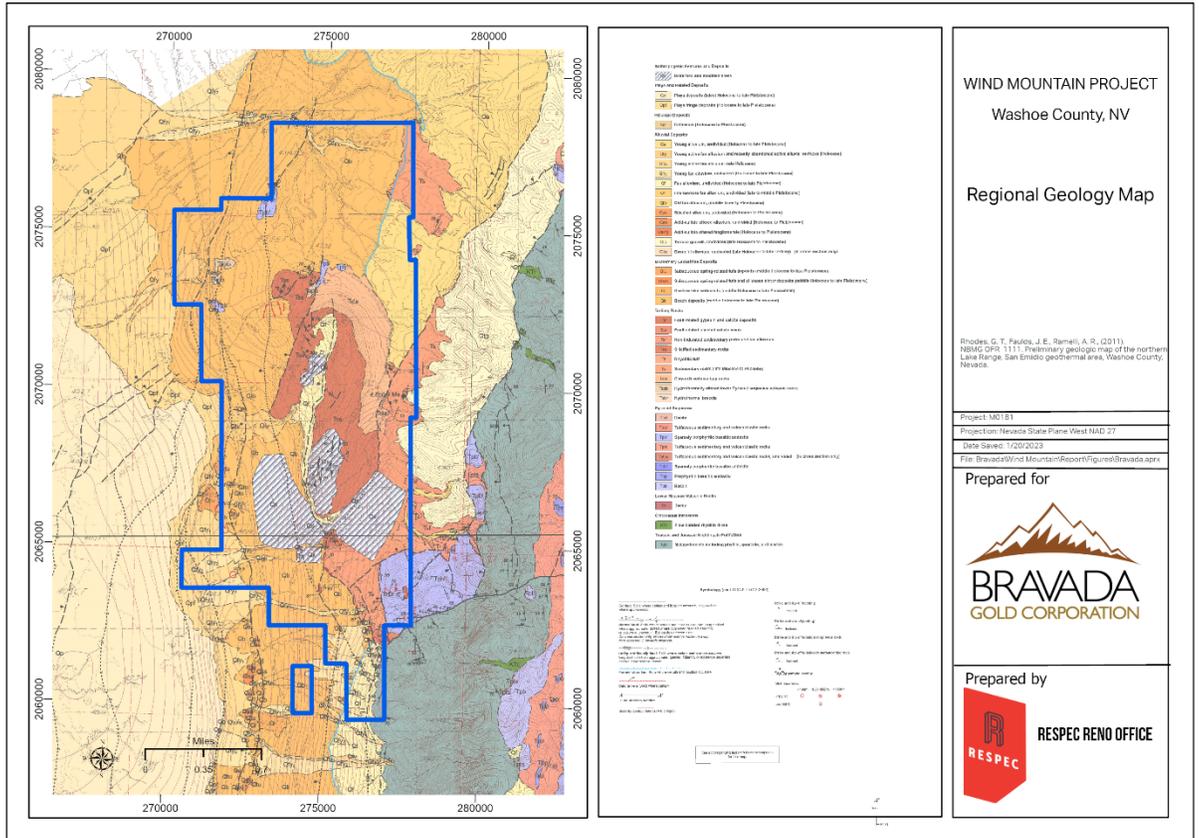


Figure 7-1. Geologic Setting of the Wind Mountain Project  
(from Rhodes et al., 2011)

## 7.2 PROJECT GEOLOGY

The Wind Mountain property is underlain by Mesozoic, Tertiary, and Quaternary rocks that were mapped prior to open pit mining in the 1990's and described by Wood (1990). Wood's map and summary provided a detailed description of host rocks and the distribution of associated alteration and gold mineralization known at that time. Subsequent to completion of the present-day open pits, the area was mapped and described as part of the Northern Lake Range by Rhodes et al. (2011) (Figure 7-1), and by Fortune River who focused on new exposures in open pits (Ristorcelli and Dyer, 2014). The geology at the Wind Mountain gold-silver project is illustrated in Figure 7-2.

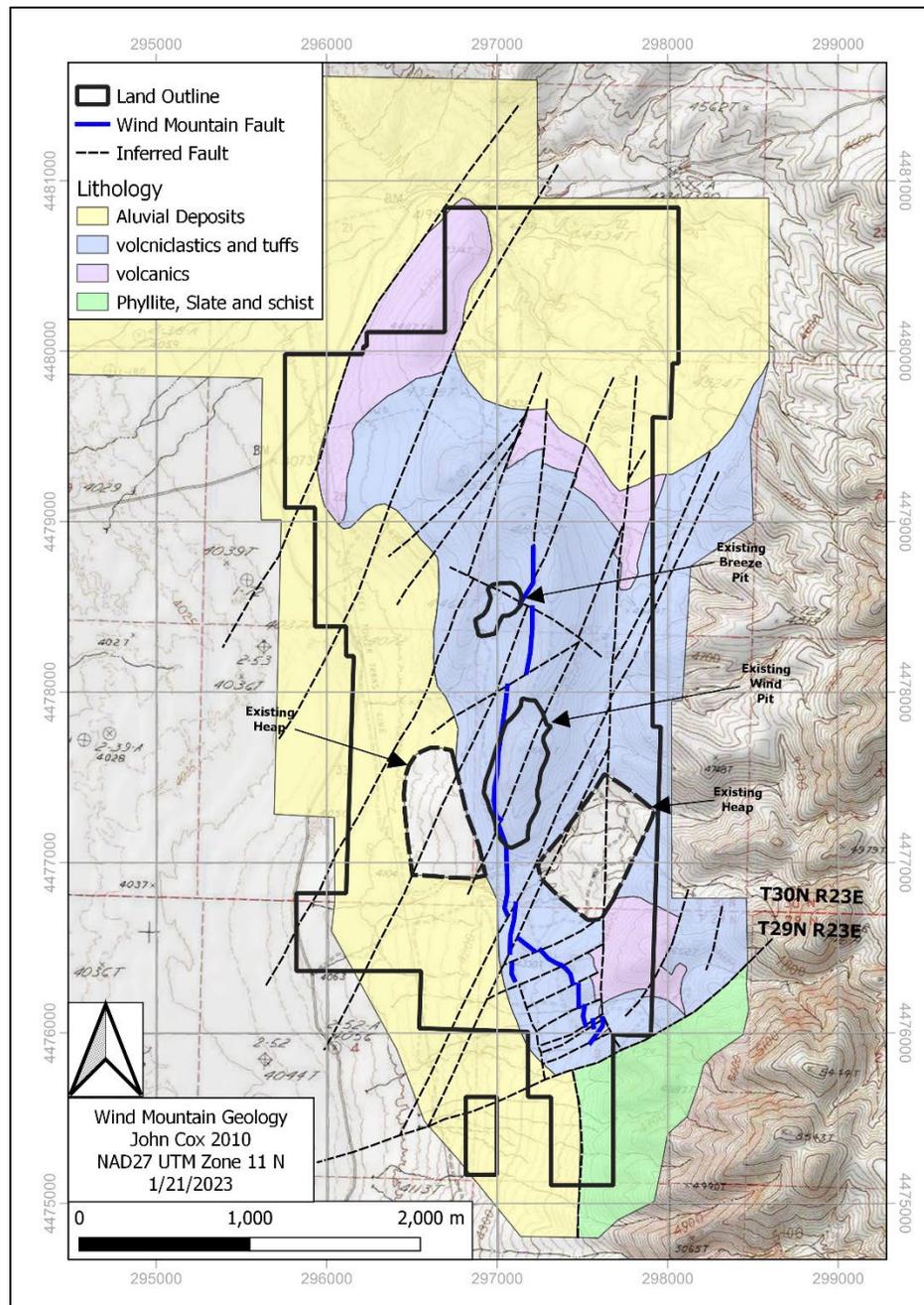


Figure 7-2. Geology of the Wind Mountain Property  
(Provided by Bravada, 2023 from 2014 data)

### 7.2.1 MESOZOIC METAMORPHIC ROCKS

**Nightingale Sequence:** Exposures of Triassic to Jurassic rocks of the Nightingale sequence in the southern portion of the project area consist of low-grade metamorphic rocks including slate, phyllite, and chloritic schist (Wood, 1990). Exploration drilling encountered these rocks at depth throughout the project area (Wood, 1990). In the southern portion of the Wind Mountain property, a northeast-trending normal fault zone forms the contact between the Nightingale sequence and Tertiary volcanic rocks (Crist, 2007a), with the Tertiary section dropped down to the north. The fault zone, up to 50ft wide, is intensely silicified, brecciated and contains fragments of metasedimentary rocks and/or Tertiary volcanic rocks in a siliceous matrix. The breccia is weakly anomalous in gold and other elements.

### 7.2.2 TERTIARY VOLCANIC AND VOLCANICLASTIC ROCKS

**Pyramid Sequence:** Overlying the Nightingale sequence is the Pyramid sequence which consists of Miocene basaltic andesite, minor basalt flows, dacite, and tuffs with lesser volcaniclastics in the Wind Mountain project area (Figure 7-2). A geothermal hole drilled in the southwestern corner of the Wind Mountain property penetrated the entire Pyramid sequence for a total thickness of approximately 1400ft (425m). Geothermal wells to the southwest of Wind Mountain property intersected 280ft to more than 650ft (85m to >200m) of the Pyramid sequence (Crist et al., 2016). Basaltic andesite ± dacite flows and flow breccias from the upper portion of the sequence have been mapped in the north and south ends of the Wind Mountain property (Tpb of Rhodes et al., 2011). Tuffaceous and volcaniclastic sedimentary rocks ranging from sandstone to conglomerate occur as lenses within these flows; cross-bedding and scour marks suggest a fluvial origin (Tpts of Rhodes et al., 2011). A strongly flow-foliated dacite (or basaltic andesite) exposed in the northern portion of the claim block has been intersected in deeper drill holes. Immediately overlying these flows is a distinctive horizon containing a conglomerate with rounded pebbles of flow-foliated dacite in a hematitic, clay-rich matrix. This horizon is interpreted to be a soil horizon conformable with the overlying Truckee Formation (Crist et al., 2016). Modeling of this horizon suggests that it dips gently to the south.

Several K-Ar dates of pumice-rich ash-flow tuff within the Pyramid sequence in the Lake Range ranged from 17.9±0.7 m.y. to 16.9±1.5 m.y. and established the age of these rocks as Miocene (Moore, 1979). More recently <sup>40</sup>Ar/<sup>39</sup>Ar age determinations included dates of 16.1±0.4 Ma and 15.1±0.2 Ma for basaltic andesite and 14.4±1.6 Ma for dacite at the top of the sequence (Rhodes et al., 2011).

**Truckee Formation:** Overlying the Pyramid sequence is the Truckee Formation which consists of Tertiary (~late Miocene to Pliocene) volcanic and volcaniclastic rocks in the Wind Mountain project area. Geothermal wells within three miles southwest of the Wind Mountain property intersected 900ft to 1200ft (280m to 360m) thickness of tuffs and volcanic sediments interpreted to be the Truckee Formation (Crist et al., 2016). Fine-grained volcanic sedimentary rocks of the Truckee Formation including sandstone, siltstone and mudstone comprise the bulk of known host-rocks for Au-Ag mineralization and crop out in the central to northern portion of the property. Cross bedding is apparent in some of the sandy portions of the unit. Poorly sorted conglomerates crop out east of the Wind Mountain property and are locally weakly silicified (Rhodes, et al., 2011). Clay-altered and iron-oxidized Pyramid sequence basaltic andesites underlie the Truckee Formation northwest of the known mineralized areas, along a zone that also hosts hydrothermal breccias exposed near mapped fault zones Tpb and Tapb, respectively (Rhodes, et al., 2011). Limited exposure of a rhyolite tuff at the top of the section just east of the Wind Mountain claim boundary and outside of the area of strong hydrothermal alteration provided an <sup>40</sup>Ar/<sup>39</sup>Ar date of 4.8± 0.9 Ma (Rhodes et al., 2011).

Fossil reeds are exposed near the top of a ridge in a relatively flat lying sequence of fine-grained beds, overlooking the Wind pit, down to the deepest levels of the mine, a topographic difference of about 540ft. Some of the reeds are preserved in an upright position in strongly silicified rock or sinter, likely indicating an environment that was undergoing rapid burial and as the silica was introduced at the surface. Beds that are reed-bearing and/or exhibit flowage features and horizontal zones of vugs are interpreted as hot-spring sinter and related sedimentary deposits.

Pervasively silicified clastic sedimentary rocks interbedded with sinter are well-exposed in the Wind pit. The clastic rocks are composed of rounded to subrounded clasts of sinter containing fossils of reeds incorporated in a siliceous matrix. The deposits have been interpreted as proximal debris shed from sinter terraces into an actively subsiding basin. Hydrothermal breccia textures are common in the clastic deposits. Well-preserved "mud pots" fed by veins of banded chalcedony are exposed in the Wind Pit. Siliceous sinter, breccia textures, and other evidence of hot springs are less common in the Breeze pit where the host rock is composed mainly of silicified volcanoclastics (Crist et al., 2016). Drilling has encountered up to 900ft (75m) of interbedded sinter, siliciclastics and variably silicified volcanoclastic rocks. The distribution, depth, and clastic textures of the sedimentary package may suggest formation in an actively subsiding basin. Detailed ground magnetic data suggest the basin may have had a rhombic shape, consistent with a pull-apart basin formed during strike-slip faulting (Crist et al., 2016).

### 7.2.3 QUATERNARY ALLUVIAL DEPOSITS AND LAKEBED SEDIMENTS

Lacustrine sediments, beach deposits, and alluvial deposits crop out along the west flank of the Lake Range and along the west side of the Wind Mountain project area. Subaqueous tufa deposits crop out west of the known mineralized areas and likely are associated with the younger north-trending San Emidio fault and associated geothermal activity (Rhodes, et al., 2011).

### 7.2.4 STRUCTURE

In the Wind Mountain area, Mesozoic rocks are strongly foliated with remnant bedding dipping about 35° to the east (Wood, 1990). Tertiary volcanic and volcanoclastic rocks dip gently to the south (Crist et al., 2016).

Several major north-striking normal faults cut through the Wind Mountain property. The fault zones range from 6ft to 160ft (2m to 50m) wide, and dip steeply to the west (Wood, 1990). The Lake Range fault lies along the east side of the Wind Mountain project area, separating it from the Lake Range proper. The fault exposes a 15ft to 100ft (5m to 30m) wide clay-gouge breccia zone that locally contains up to 10 percent gypsum (Wood, 1990). The Wind Mountain fault, which was poorly exposed prior to mining, is subparallel to the Lake Range and related faults along the west side of the Wind deposit. The fault trace has been mapped through the west side of the Wind Pit, and northwards east of the Breeze Pit (Figure 7-2). The fault zone hosts silica- and carbonate-rich hydrothermal breccias. Additional subparallel faults to the west are marked by oxide staining, clay alteration and deposition of native sulfur and cinnabar in Quaternary alluvium (Woods, 1990).

The Wind Mountain fault exhibits extensive post-mineral, variable dip-slip 'scissor-type movement', possibly similar to several subparallel northeasterly trending hinge-faults bounding Breeze Canyon. Based upon mapping, the faults bounding Breeze Canyon appeared to have a pivot point at the north end of Wind Mountain, with up to 30ft (10m) of displacement at the north end of the canyon and is up to 330ft (100m) at

the south end of the canyon. The projected maximum vertical displacement under alluvium is south of Breeze Canyon (Wood, 1990). In the vicinity of the Wind pit, exposures of the Wind Mountain fault show displacement of the Pyramid-Truckee contact of approximately 700ft (215m), decreasing to the north (Crist et al, 2016). Dilation along the Wind Mountain fault resulted in a 230ft (70m) wide fissure which was subsequently filled with banded calcite. Movement along this fault likely caused the Wind Mountain orebody to move westward in several rotational blocks (Wood, 1990), causing displacement of the formerly contiguous Wind, Breeze, and Deep Min deposits (Ristorcelli and Dyer, 2014).

North-trending faults and fracture zones that cut siliceous host rocks are well exposed within the Wind and Breeze pits. Additional orientations of faults and fractures are present, but none have been identified as controls on mineralization. Although northeasterly-trending faults and fracture zones are not obvious in the pits, envelopes of higher-grade gold mineralization are oriented north-northeast.

Open-space banded calcite veins locally filled the Wind Mountain and smaller faults along the pediment south of Wind Mountain. The structures are barren, cross-cut silicified rocks, and appear to post-date mineralization. Silicified remnants of calcite crystals visible along several faults suggest that there were periods of calcite deposition between episodes of mineralization (Wood, 1990).

#### 7.2.5 ALTERATION

Silicification and argillization have strongly affected much of the Truckee Formation in the Wind Mountain project area. Exposures of strongly argillized rocks containing montmorillonite and lesser illite and kaolinite, cover an area greater than 2.5mi<sup>2</sup> (6.5km<sup>2</sup>). Alteration is zoned and progressively changes from silicified and leached rocks centralized on faults, locally receptive beds, and hydrothermal breccias to intensely argillized rocks containing abundant illite. Weak to moderate argillic alteration is peripheral to the strongly argillized zones (Wood, 1990). Several clay prospects are located on the east side of Wind Mountain (kaolinite and montmorillonite), and clay materials for lining leach pads and for other uses were obtained locally (Wood, 1990). Drill holes west of the Wind Mountain fault, and west of the Wind pit, encountered up to 650ft (200m) of gray, pyritic clay and volcanoclastic siltstone to sandstone, which overlies the downthrown Deep Min gold mineralization. The clay is auriferous, commonly containing values of 0.001 to 0.03oz Au/ton (0.03 to 0.20g Au/ton). These sediments may have been argillized during formation of the Wind Mountain gold-silver deposits, or during younger geothermal activity (Crist et al., 2016).

Prior to mining, a strongly silicified zone was identified in the central core and west side of the Wind Mountain deposit that covered an area 330ft (100m) wide and more than 1mi (1.7km) long. About five percent of the strongly silicified rocks (>70% silica) contained disseminated pyrite encapsulated in silica. Silicification was best developed along high-angle faults, particularly the Wind Mountain fault (Wood, 1990). Mapping and sampling by Fortune River and Bravada confirmed that dark gray, strongly silicified sediments with a few percent pyrite is present in the central mine areas, except where oxidized.

Hydrothermal breccia bodies are exposed in the Wind pit (referred to as the Main pit in some reports) and in fault zones in the southern portion of the property between the Nightingale sequence and Tertiary volcanic rocks. Breccia bodies within the Wind pit occur in several discrete north-trending structural zones. Monolithic silicified volcanic siltstone and sandstone fragments are incorporated within a light to dark gray

siliceous matrix in the structural zones. Breccia textures are typically mosaic, but rotated fragments are also common in some bodies.

Another hydrothermal breccia body occurs in a northeast-trending fault zone that separates the Nightingale sequence from Tertiary volcanic rocks in the southern portion of the property. The zone is up to 50ft wide, and the Tertiary section is downthrown to the north along the normal fault. The fault and breccia can be traced for a distance of about 3,300ft. The fault zone is intensely silicified and brecciated and contains fragments of metasedimentary rocks and/or Tertiary volcanic rocks in a siliceous matrix. The breccia is weakly anomalous in gold and other indicator elements.

Much of the Wind Mountain fault zone is composed of silicified breccia and banded calcareous material in fracture fillings along a strike length of approximately 6,600ft. Widths exceed 100ft. Wood (1990) interpreted that alluvial material has fallen into the upper levels of an open fracture in the fault and was subsequently silicified. Silicification decreases and clay-rich material increases with depth within the structural zone. The southern 4,300ft of the fracture-fill of the Wind Mountain fault contains banded calcareous material. At the entrance to the Wind pit, vertical banding in the calcareous material within the Wind Mountain fault rolls over to nearly horizontal upward towards the surface.

## 7.2.6 MINERALIZATION

### 7.2.6.1 GENERAL CHARACTERISTICS OF MINERALIZATION OF WIND MOUNTAIN DEPOSITS

Mineralization at the Wind Mountain project is characterized by low-grade gold (>~0.005oz Au/ton) with variable silver hosted by sinter and silicified volcanoclastic material. The silver to gold ratio is variable but averages approximately 30:1. Precious metals typically are accompanied by arsenic (20-175ppm As), antimony (20-175ppm Sb), mercury (1-10ppm Hg), selenium (20-180ppm Se) and molybdenum (1-5ppm Mo), which increase in abundance with increasing gold grades. Base metals are locally enriched in the deepest drill holes. The highest molybdenum values (>100ppm Mo) coincide with elevated rhenium (to 0.2ppm Re) in a few deep intercepts, possibly indicative of a felsic intrusion at depth (Crist, et al., 2016).

Continuity of gold mineralization within the Wind Mountain deposits is good at grades in the range of 0.005 to 0.015oz Au/ton. Higher-grade zones occur in generally flat-lying pods up to 1,000ft long by 300ft wide and 100ft thick within lower-grade mineralization. Gold occurrences continue sporadically for thousands of feet beyond the known mined deposits, and present opportunities for further exploration.

Gold and silver occur primarily as electrum in oxidized zones. Late-phase pyrite containing gold may also be present as coatings on an early barren form of pyrite where sulfides are not oxidized (Wood, 1990). The host mineral of the unoxidized silver mineralization has not been identified. Pyrite, minor marcasite and traces of cinnabar are the most common sulfide minerals observed. Within the near-surface oxide zone of the Wind Mountain deposits, small amounts of unoxidized pyrite are encapsulated in silica. Native sulfur is present in strongly bleached and leached zones in the deposit. Approximately 0.5 to 3% disseminated pyrite can be found in shallow bedrock beneath the pediment surrounding the Wind Mountain project.

Oxidation and leaching are developed to depths of more than 600ft in general, and up to 1,000ft along the Wind Mountain fault. Surface leaching of rocks occurred throughout the deposit area and resulted in

formation of goethite, jarosite, and hematite after sulfide minerals. The state of oxidation of gold and silver mineralization can have a significant impact on metallurgical recoveries.

Prior to mining, surface sampling and drilling geochemistry delineated a pervasive zone of detectable gold at 0.0001 to 0.005oz Au/ton (0.005 to 0.17g Au/t) in a two square mile (five square kilometer) halo around the Wind Mountain gold deposit closely associated with weakly to moderately argillized and weakly silicified rocks. Grades greater than 0.005oz Au/ton (>0.17g Au/t) were associated with moderate to strong silicification and argillic alteration covering an area approximately 6,500ft (2,000m) long and 1,000ft (300m) wide. Offset by faulting is apparent in the distribution of gold grades. Intensely silicified rocks covering an area approximately 2,500ft (750m) long and 200ft (60m) wide with greater than 0.001oz Au/ton (0.34g Au/t) and locally greater than 0.29oz Ag/ton (10.0g Ag/t) are present on the crest of Wind Mountain. Nearly all rocks of mineable grade occurred within or directly adjacent to the surface expression of the crest zone (Wood, 1990). Drilling ultimately defined the Wind Mountain and Breeze gold mineralized zones, which were partially mined by AMAX in the 1990's.

The geologic controls of Wind Mountain-deposit gold and silver mineralization are a combination of: (1) proximity to steeply dipping north/northwest-trending structural zones that may have been conduits for hydrothermal fluids; (2) porous and permeable stratigraphic horizons that were favorable for mineral deposition; and (3) possibly paleo-boiling elevations. All deposits dip at about 10° south-southeast, and northerly trending post-mineral normal faults have offset the original contiguous deposit into blocks separated by generally barren structural zones.

#### 7.2.6.2 WIND PIT AND DEEP MIN DEPOSITS

The axis of the Wind deposit is oriented north-northeast, and a crudely developed network of clay-filled vertical fractures of roughly similar orientation can be traced through the Wind pit. The blasthole data reportedly delineate several pods of higher-grade gold mineralization that suggest lateral flow along permeable horizons. No obvious feeder structure is apparent from the data, and drilling beneath the deposits indicates that the clay-filled fractures do not contain enriched gold mineralization at depth. The fractures were not likely to have been feeder structures, but rather provided permeability for hydrothermal fluid flow within favorable stratigraphic horizons.

The Wind Mountain fault zone is present along the west side of the Wind pit. Slight offsets across northwest- and north-northwest-trending faults have been observed in several locations within and outside the pit. The Wind Mountain fault zone in the Wind pit contains dark gray, coarsely crystalline, banded calcite that was apparently deposited after gold deposition.

In 2008, a new zone of gold mineralization, known as Deep Min, was partially defined by relatively deep drilling on the west, hanging-wall side of the Wind Mountain fault. Nine holes penetrated relatively thick zones of gold mineralization, which has been dropped down approximately 700ft from the sub-horizontal Wind deposit by the fault. The mineralization at Deep Min extends downward, suggesting that upwelling fluids were centralized in the area.

The known precious metal-bearing material remaining at the Wind Mountain property includes mineralization in an area roughly 5,000ft north-south by 1,200ft wide by 600ft vertical thickness at the Wind

deposit. The approximate dimensions of Deep Min mineralization are about 900ft long by 700ft wide by 700ft vertical thickness.

#### **7.2.6.3 BREEZE DEPOSIT**

The Breeze pit is the northern and smaller of two open pits mined by AMAX. Silicified volcanoclastic rocks host gold and silver mineralization, although silicification is not as strongly developed as in the Wind pit. A crudely developed fracture network trends roughly north to northwest through the pit. Feeder structures for the Breeze pit mineralization have not been identified with certainty.

Shallow south-dipping mineralization extends over 1,000ft southward from the existing Breeze pit. The known precious metal-bearing material remaining at the Breeze deposit covers an area that is 3,400ft north-south by 1,000ft wide by 200ft vertical thickness.

East of the Breeze pit, the Wind Mountain fault zone lies along the west flank of a north-trending ridge capped by silicified, precious-metal-bearing rocks. No deep drilling has been conducted in the area, although mineralization has been intersected in many of the shallow holes along the ridge.

#### **7.2.6.4 NORTH HILL TARGET**

A small area of mineralization known as the North Hill target, located approximately 3,000ft northwest of the Breeze pit, has been drilled. The limits to this mineralization have not been defined. The North Hill target mineralization could represent the surface expression of a shallowly south-dipping, down-faulted extension of the Breeze deposit. Considerable additional drilling will be required to fully define the target.

#### **7.2.6.5 ZEPHYR TARGET**

A similar geologic setting to that of the North Hill target occurs approximately 3,000ft to the northwest, where a post-mineral fault has down dropped and preserved favorable stratigraphy beneath alluvium and lake sediments. Five holes have been drilled in the area, including an historic 540ft drill hole that intersected 60ft of 0.009oz Au/ton at the bottom of the hole. Geophysics could be used to target follow-up drilling.

## 8.0 DEPOSIT TYPES

The deposits at the Wind Mountain project and other occurrences of gold-silver mineralization in the Walker Lane and Northern Nevada (e.g., Round Mountain, Midas, Hycroft, Hog Ranch) have long been considered examples of epithermal precious-metal deposits that are classified as the “low-sulfidation” type (e.g. White and Hedenquist, 1995; Cooke and Simmons, 2000; and Sillitoe and Hedenquist, 2003). Wind Mountain and other low-sulfidation deposits in the region are broadly related to middle Miocene (~17-15 Ma) bimodal basalt-rhyolite volcanism of the SVC associated with the northern Nevada rift (John, 2001). Epithermal deposits are important sources of gold and silver that form at shallow depths (<1.5 kilometers), at temperatures less than 300°C, and in hydrothermal systems commonly developed in association with calc-alkaline to alkaline, as well as continental tholeiitic (i.e., bimodal), magmatism (Simmons et al, 2005). Such deposits can have substantial precious-metal production (e.g., many deposits produce >5 Moz gold and >250 Moz silver) and are particularly known for the spectacular bonanza grades of some deposits (Cooke and Simmons, 2000).

Minerals associated with precious-metals in low-sulfidation systems include pyrite, sphalerite, arsenopyrite, gold-silver sulfosalts, electrum, and gold. Common gangue includes quartz, opal-CT, adularia, calcite, illite, and barite (White and Hedenquist, 1995). Gold typically occurs as electrum in association with silver sulfosalts, base-metal sulfides, and pyrite. (Cooke and Simmons, 2000). The geochemistry of low-sulfidation epithermal deposits is characterized by anomalously high concentrations of Au, Ag, As, Sb, Hg, Zn, Pb, Se, and K.

Figure 8-1 is a schematic model of a low-sulfidation epithermal mineralizing system modified from White and Hedenquist (1995), Hedenquist et al. (2000), Cooke and Simmons (2000), and Sillitoe and Hedenquist (2003). The geological setting of the Wind Mountain project is somewhat more complex than the simplified model in the figure, but the overall geometry and association of features are similar.

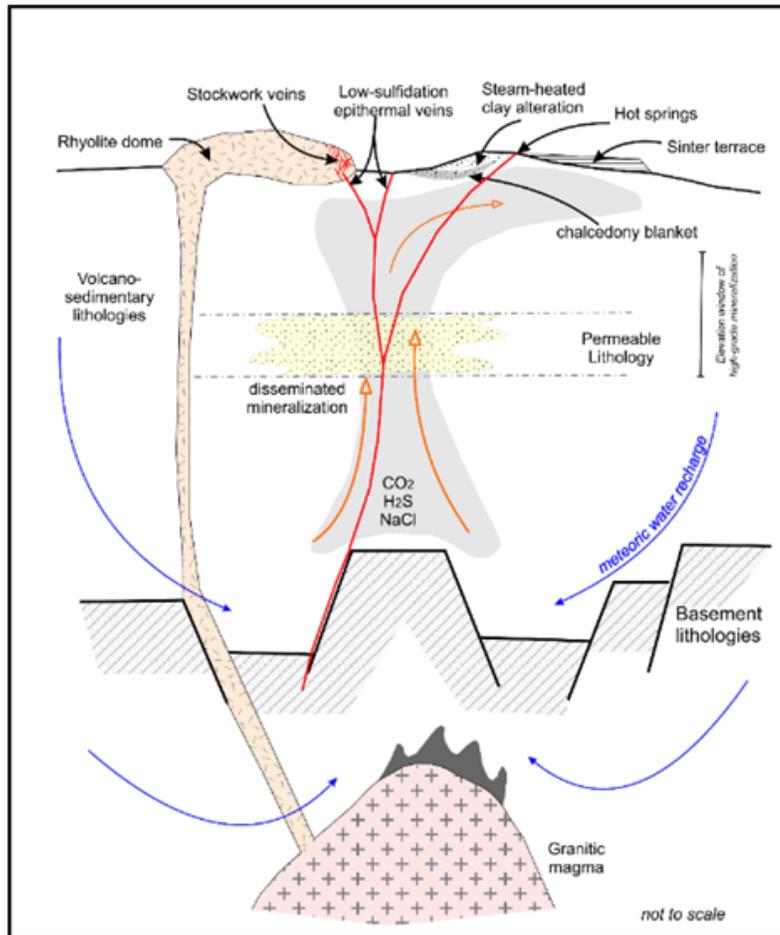


Figure 8-1, Schematic Model of Low-Sulfidation Epithermal Precious-Metal Systems

The schematic section in Figure 8-1 shows geologic relationships in typical low-sulfidation epithermal precious-metal deposits. Meteoric water circulates to depths as deep as five kilometers through convection driven by heat from an underlying crystallizing magma (or from heated fluids accessed through crustal extension). At depths of one to two kilometers below the water table, within the upflow zone, maximum temperature-pressure gradients are close to boiling conditions. At shallower levels, the local hydraulic gradient may cause rising fluids to move laterally to form outflow zones. Separated vapor with CO<sub>2</sub> and H<sub>2</sub>S may condense in the vadose zone to form steam-heated acidic waters.

Many low-sulfidation epithermal precious metal deposits are largely disseminated bodies. Examples include the smaller deposits at the Wind Mountain project and the large deposits at Round Mountain, Nevada (>15 million ounces gold). Disseminated deposits are generally low grade with the gold distributed in a large body of favorable rock, which is associated with primary host rock porosity or secondary porosity due to fracturing, alteration or other processes.

The disseminated mineralization at the Wind Mountain project is somewhat unique, because the precious metals were deposited at high levels in the hot-spring system compared to most other gold deposits in Nevada. Gold and silver precipitated within a package of volcanoclastic sediments and fossil reed-bearing sinter, which were presumably near-surface deposits.

The Hycroft gold-silver deposit, located approximately 50 miles northeast of the Wind Mountain property, is similar in style and grade of mineralization to the Wind Mountain deposits. From 1983 to 1998, Hycroft produced 1.2 million ounces of gold and 2.5 million ounces of silver from an open-pit, heap-leach operation. Allied Nevada Gold Corp. re-opened the mine in 2008. From 1983 to 2011, Hycroft produced 126.8 million tons with an average cyanide-soluble grade of 0.015oz Au/ton, for 1.4 million ounces of gold (Allied Nevada Gold Corp. and Scott E. Wilson Consulting, Inc., 2012).

A second style of low-sulfidation epithermal precious-metal-bearing deposit is characterized by massive and banded quartz veins and quartz cemented breccias that contain relatively high gold and/or silver grades. Examples include the banded veins at Midas, and the world class massive silver-gold veins of the Comstock lode. Trace elements commonly include mercury and arsenic, and selenium is sometimes anomalous (e.g., in naumannite at Midas). Base metals can be strongly anomalous in the deeper levels of the low-sulfidation deposits, but may more ubiquitous in intermediate-sulfidation systems. Vein deposits, such as the Comstock (>200 million ounces silver and >8 Moz gold) and Midas (>2 million ounces Au), are typically emplaced into individual open faults, fault breccias and fractures.

## 9.0 EXPLORATION

This section describes exploration by Fortune River and Bravada other than drilling and has largely been taken from the technical reports by Noble and Ranta (2007) and Ristorcelli and Dyer (2014). Additional information was provided directly by Bravada. Drilling by historical operators and Fortune River/Bravada is summarized in Section 10.0.

Fieldwork conducted at the Wind Mountain project by Fortune River from 2007 through 2010 included surface rock-chip sampling, geologic mapping, detailed ground magnetic surveys, and the drilling of 13 and 14 holes in 2007 and 2008, respectively (drilling described in Section 10.3). Fortune River also collected historical data and developed a 3-D computer model of geology and mineralization using Discover 3D and GoCad® software. The modeling was based on data from blasthole and exploration drilling, pit sampling and mapping, and ground magnetic surveying conducted by historical operators and Fortune River. The primary conclusions of the work were that disseminated gold was deposited over a broad area along relatively flat-lying permeable horizons, with higher concentrations developed along some small-scale faults and fracture sets trending north, northeast, and northwest. The geometric distribution of gold on the property was plotted from drill-hole data generated by AMAX (Wood, 1990), and confirmed by Fortune River's surface sampling.

Fieldwork conducted at Wind Mountain by Bravada from the merger with Fortune River to 2011 included mapping, soil sampling, and sampling of heap piles. Bravada drilled 92 RC holes from 2011 through 2021 (Section 10.4).

### 9.1 FORTUNE RIVER SURFACE ROCK-CHIP SAMPLING

In 2007, 168 rock-chip samples were collected from surface outcrops and pit walls. Fortune River's surface-sample spacing (Crist, 2007a) was determined by the location of rock exposures and float of altered rock. The purpose of the surface-sampling program was to investigate the distribution and relative intensities of gold anomalies on the property to explore for higher-grade feeder structures and determine if metal zoning is present. Some samples from open-pit bench faces were collected over measured distances, but the results were general in nature and did not demonstrate any specific width or length of mineralized material. Follow-up sampling designed to evaluate cross faults that might control gold mineralization was also carried out in 2007. Samples from several northeast- and northwest-trending fault structures were enriched in gold. However, projections of the faults in 3-D models using the sampling and intersections in historic drill holes indicated that the majority of the structures were not important feeders for mineralization.

### 9.2 FORTUNE RIVER SURFACE DUMP SAMPLING

Fortune River sampled three major waste dumps at the Wind Mountain mine in March 2008. The objective of the program was to evaluate the average gold and silver grades of the dumps and determine if any difference in grade exists for particles sizes above and below four inches in diameter. A total of 108 samples were collected from 55 sites. Sampling was conducted on a pre-selected grid at roughly 200ft spacing. At each site, two samples representing the two size fractions were collected from within a measured one-meter square panel. A fine fraction sample ("F") was produced by filtering the material through four-inch

lateral spaces between re-bar mounted in a wooden frame. The remaining +4in material was analyzed as a separate coarse sample ("C").

The samples were submitted to BSI Inspectorate ("Inspectorate") for analysis of gold and silver from a 500g pulp. Gold was analyzed by fire assay with an atomic absorption ("AA") finish, and silver was assayed by AA. All sample weights were recorded by the lab. One-hour shaker tests using cold cyanide extraction with an AA finish were also performed to evaluate gold and silver leachability. Results are discussed in Section 13.3.2.

The surface dump sampling program indicated the dumps could contain some economically viable gold mineralization amenable to heap leaching. The results were used to design a bulk sampling study of the dumps as described in the following section.

### **9.3 FORTUNE RIVER BULK DUMP SAMPLING**

In June 2008, two 20 to 25-ton samples were collected from trenches excavated into two of the waste dumps at the Wind Mountain mine. The trench in the Breeze dump near the Breeze pit measured approximately 350ft long and 20 to 25ft deep. The other was in the main dump near the Wind pit and was approximately 200ft long and 20 to 25ft deep. Both trenches were about four to six feet wide. Fortune River commissioned McClelland Laboratories, Inc. ("McClelland") to conduct column testing of the two bulk dump samples. Results of this work are described in Section 10.3.

### **9.4 FORTUNE RIVER GROUND MAGNETICS SURVEY**

A ground magnetics survey program was conducted over the Wind Mountain property in April 2006 by Chris Magee (Crist, 2007b). Consulting geophysicist Bob Ellis reviewed, approved the quality of, and processed the data, but did not provide a formal interpretation. Ground coverage did not include the Wind and Breeze pits due to safety considerations.

One prominent feature defined by the magnetic survey is a north-trending, rhombic-shaped magnetic low with dimensions of about 3.5 by 2.0km elongate along the trend of mineralization (Figure 9-1). This magnetic anomaly, when integrated with geologic data, is interpreted to define the boundaries of a graben into which volcanic and volcanoclastic rocks were deposited. The Wind pit is near the center of this broad magnetic low, and the Breeze pit occupies the northernmost corner. The strong northwest-trending linear high on the west side of Figure 9-1 is a powerline. The prominent magnetic high in the northwestern corner of the survey has been interpreted as a buried intrusion, and according to Bravada, could be associated with gold mineralization.

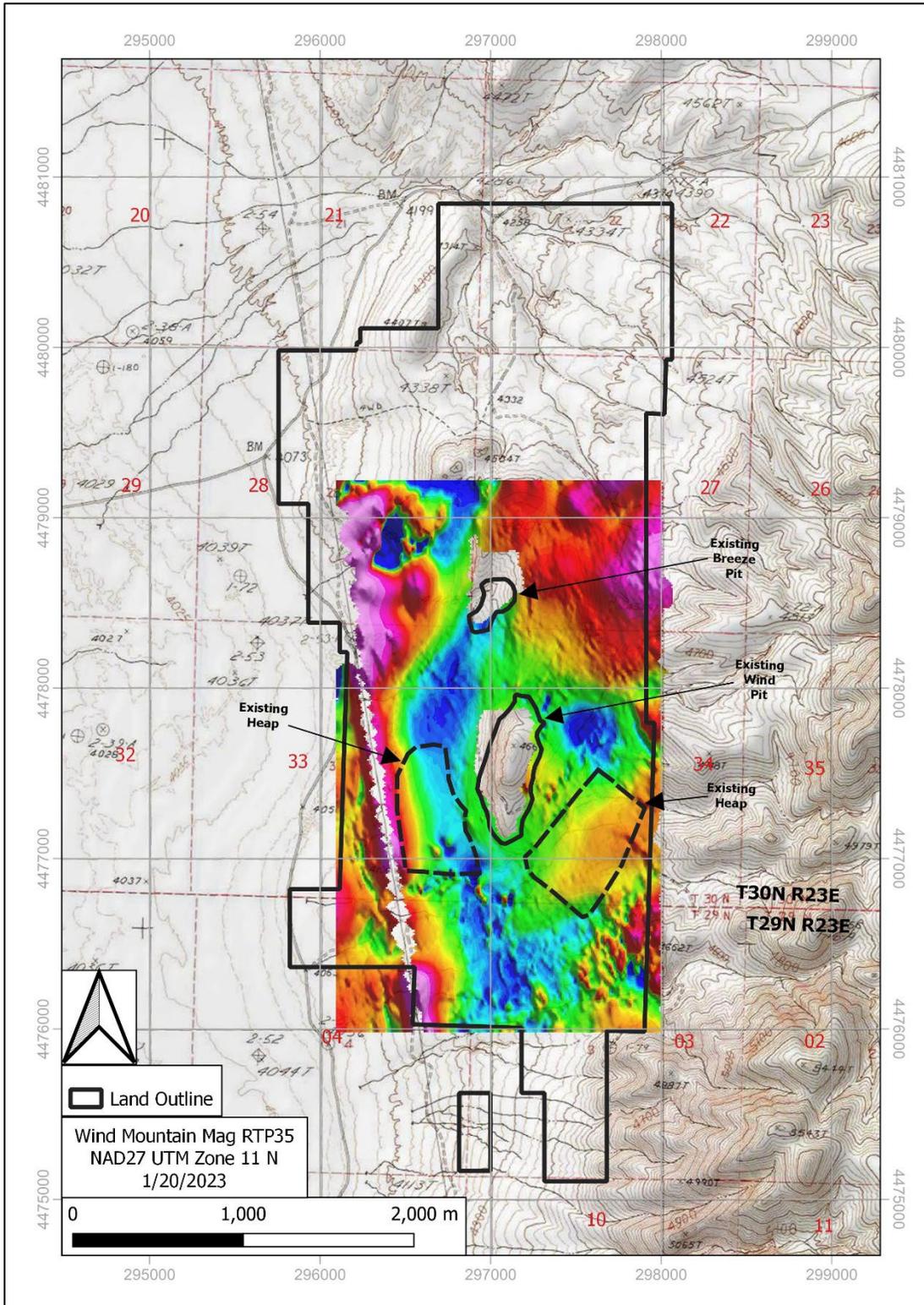


Figure 9-1. Ground Magnetics Survey of the Wind Mountain Property  
(Provided by Bravada, 2023 from 2012 data)

A prominent, northwest-trending magnetic anomaly break appears to cut across the southwest portion of the Breeze pit and southeastward across the north-trending ridge north of the Wind pit. This possible structure also coincides with a prominent offset in the Wind Mountain fault zone.

### 9.5 BRAVADA HEAP-LEACH SAMPLING

In 2011, Bravada collected bulk samples from the heap piles with an excavator to a depth of approximately five meters. Metallurgical studies on the material from the sampled areas indicated that past leaching had recovered minimal gold and silver from the larger-size fractions. Further work is necessary to determine the quantity and grade of the residual heap material, and if additional crushing and re-leaching would be economically feasible (Bravada news release, February 23, 2012).

### 9.6 BRAVADA SOIL SAMPLING

Bravada conducted soil sampling in January and February 2011 over an area northwest of the mined deposits (Figure 9-2). A total of 406 soil samples were taken on a grid spacing of 50m. Gold values ranged from below detection to 0.40oz Au/ton (1.4g Au/t), 29% of the samples contained >0.003oz Au/ton (>0.1g Au/t), and 8% of the samples contained >0.009oz Au/ton (>0.3g Au/t).

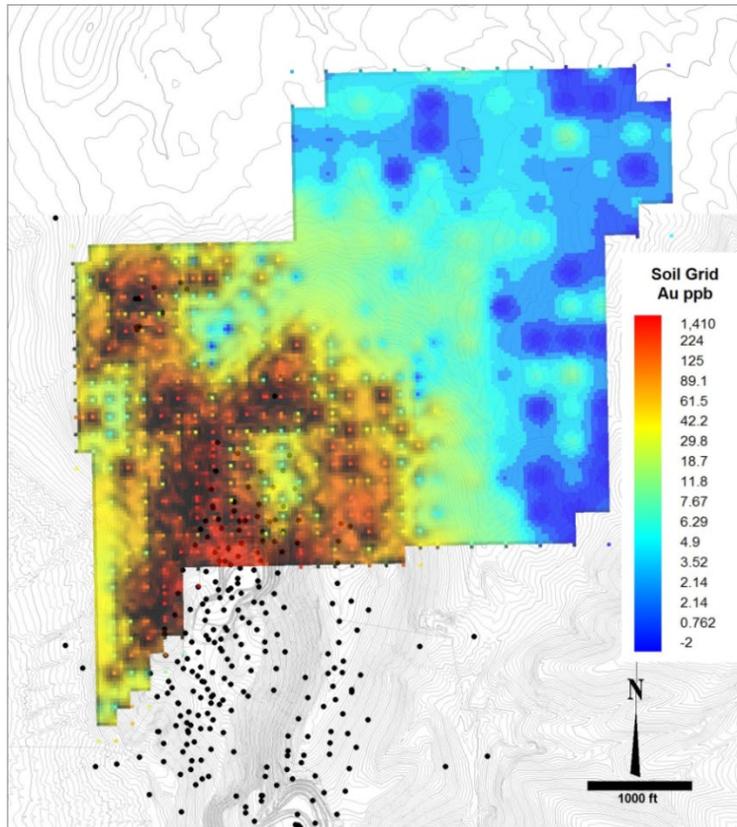


Figure 9-2 Map of Bravada Soil Geochemical Sampling  
(Provided by Bravada)

## 10.0 DRILLING

The information presented in this section of the report is derived from multiple sources, as cited. The authors have reviewed the information in this section and believe the summary accurately represents drilling done at the Wind Mountain property. The authors are unaware of any drill sampling, core recovery, or additional factors related to drilling other than those described below in this section that materially impact the mineral resources discussed in Section 13.0.

### 10.1 SUMMARY

The drilling described in this section was performed at the Wind Mountain project by historical operators from 1982 through 1991, and by Fortune River and Bravada from 2007 through 2021. RESPEC has records for a total of 226,214ft drilled in 583 holes at the Wind Mountain property as summarized in Table 10-1. Approximately 20% of the holes and 28% of the feet were drilled by Fortune River and Bravada from 2007 through 2021. RC methods were used for 99% of the holes drilled within the property. Of all drill holes, 57% were inclined.

Table 10-1 Summary of Wind Mountain Drilling

Year	Company	RC Holes	RC Feet	Core Holes	Core Feet	Total Holes	Total Feet
<b>Historical Operators</b>							
1982	Chevron	6	1,740	0	0	6	1,740
1984	Santa Fe Mining Co.	32	12,075	0	0	32	12,075
1982-1991	AMAX	422	148,621	4	1,123	426	149,744
1982-1991	<b>Historic Totals</b>	<b>460</b>	<b>162,436</b>	<b>4</b>	<b>1,123</b>	<b>464</b>	<b>163,559</b>
<b>Fortune River/Bravada</b>							
2007	Fortune River	13	9,765	0	0	13	9,765
2008	Fortune River	14	16,220	0	0	14	16,220
2011	Bravada	50	13,485	0	0	50	13,485
2012	Bravada	12	4,570	0	0	12	4,570
2013	Bravada	7	3,870	0	0	7	3,870
2017	Bravada	2	3,395	0	0	2	3,395
2020	Bravada	4	4,175	0	0	4	4,175
2021	Bravada	17	7,175	0	0	17	7,175
2007-2021	<b>Fortune River/Bravada Totals</b>	<b>119</b>	<b>62,655</b>	<b>0</b>	<b>0</b>	<b>119</b>	<b>62,655</b>
1982-2021	<b>Grand Totals</b>	<b>579</b>	<b>225,091</b>	<b>4</b>	<b>1,123</b>	<b>583</b>	<b>226,214</b>



A map showing the distribution of the drill holes within the Wind Mountain property is presented in Figure 10-1. Outlines of the Wind, Breeze and Deep Min resource areas are included on the map. Drill spacing for the entire resource area averages 160ft, and averages 130ft and 120ft within the Wind and Breeze pits, respectively.

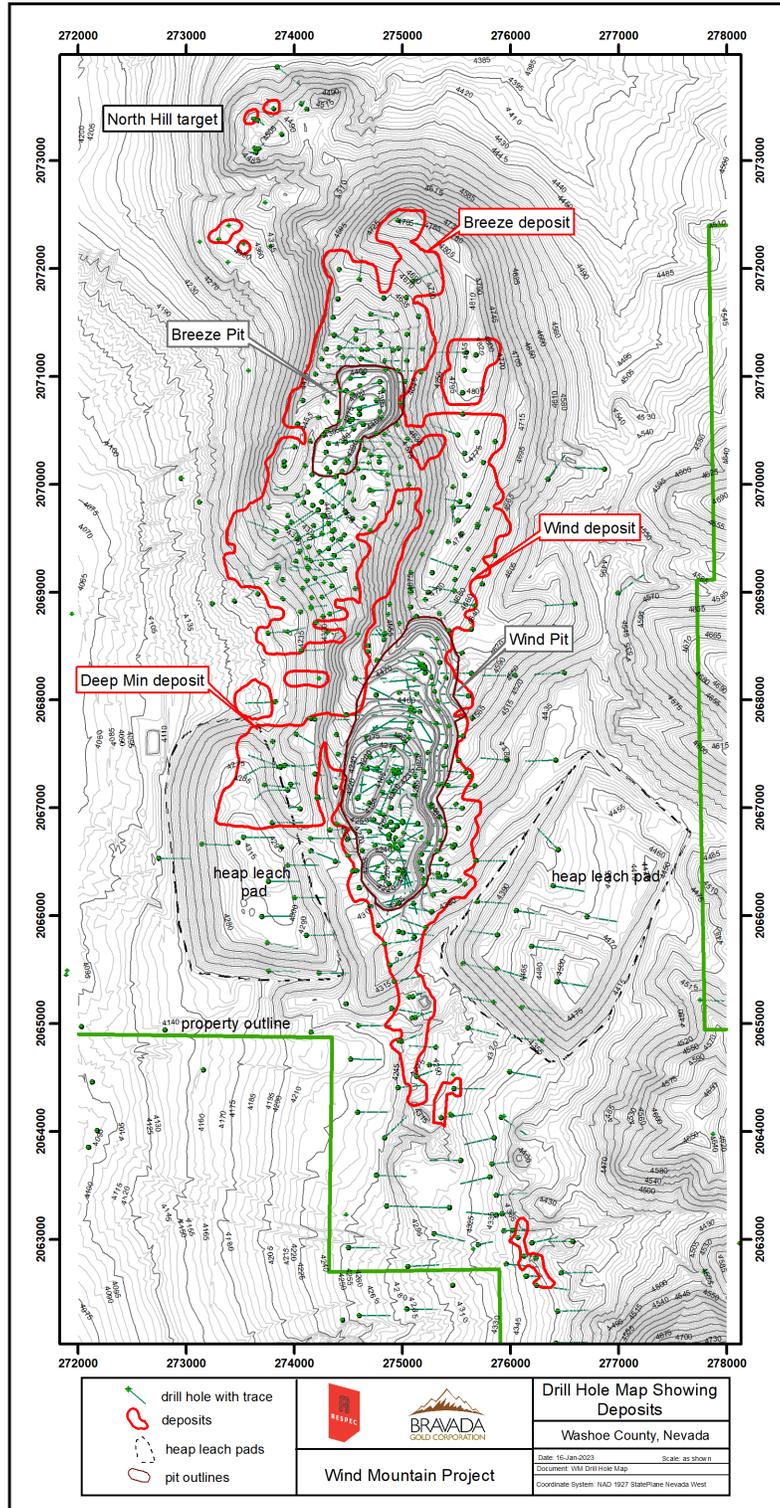


Figure 10-1 Plan Map of Wind Mountain Drill Holes  
Resource outlines are shown in red.

In addition to the drill-hole data, the AMAX archives contained collar coordinates and gold and silver assays for 81,275 blastholes. Blasthole data have not been included in the summary in Table 10-1.

## **10.2 HISTORICAL DRILLING**

Records of historical drilling are incomplete with respect to dates, drilling methods, drilling contractors, and types of drills used. As of the effective date of this report, RESPEC has data for a combined 464 holes totaling 167,637ft of drilling by AMAX, Santa Fe, and Chevron. Historical holes were drilled starting in 1982 and ending in 1991, the year before mining ceased in 1992. Most of the historical drilling was RC, but four core holes were completed. The known limitations of the data sets are described for each historical operator in their respective subsections below.

Gold and silver assays on predominantly five-foot intervals are available for nearly all holes, and inductively coupled plasma (“ICP”) analyses for other elements are available for selected holes. A digital record of the historical drill-hole data compiled by AMAX was received from Kinross and a previous landowner. Drill cuttings from some of the Santa Fe and Chevron drilling were purchased from the previous land owner, but have not been examined by RESPEC. Copies of summary drill logs were obtained as part of the same purchase.

### **10.2.1 AMAX - 1982 TO 1991**

During 1982 and 1987 through 1991 AMAX drilled a total of 149,744ft in 422 RC holes and 4 core holes at the Wind Mountain project. Mineralized material intersected in the drilling provided the information required for delineation, and ultimately development of the Breeze and Wind deposits.

No records were available for three RC holes (PW001 to PW003, 940ft) drilled by AMAX, and the year drilled is not specified in the database. However, the hole number prefix is commonly used to refer to production wells and were presumably drilled to provide water for mining during the period from 1987 to 1991.

### **10.2.2 CHEVRON - 1982**

Chevron drilled a total of 1,740ft in six RC drill holes at Wind Mountain. Digital data was available for use in modeling and resource estimation, however, information regarding the drilling contractors, rigs, and specific drilling, splitting and sampling methods and procedures were not available.

### **10.2.3 SANTA FE MINING CO. - 1984**

Santa Fe drilled a total of 12,075ft in 32 RC drill holes at Wind Mountain in 1984. Eighteen holes were drilled by Stevens & Harris Drilling Company, 13 by Eklund Drilling Company (“Eklund”), and one hole by Becker Drilling, Inc. Digital data was available for use in modeling and resource estimation, however, information regarding the drill rigs, and specific drilling, splitting and sampling methods and procedures were not available.

## **10.3 FORTUNE RIVER – 2007 TO 2008**

Fortune River carried out drilling between 2007 and 2008 at the Wind Mountain property. All of Fortune River drilling was performed with RC rigs. Reportedly, significant water was not encountered during drilling. All

Fortune River drilling was oriented relatively perpendicular to the deposit thereby providing a reasonable representation of the true thickness of sub-horizontal mineralization. Drilling during this period was not directly observed by the authors of this report, so issues that can be associated with water injection, the use of a Y-splitter on the rotating wet splitter, etc. that could impact the representativity of samples could not be evaluated.

### 10.3.1 DRILLING EQUIPMENT AND SAMPLING PROCEDURES

Drift Exploration Drilling, Inc. ("Drift") conducted Phase I of Fortune River's drilling program at Wind Mountain in 2007. A total of 9,765ft was completed in 13 RC holes ranging in depth from 265ft to 1,005ft from January 29, 2007 and to May 4, 2007. A geologist was present on site for most of the drilling. Drift utilized a track-mounted MD-50 reverse-circulation drill rig, which was equipped with a Gilson splitter for dry samples and a rotating cyclone splitter for wet samples. A Y-splitter was attached to one of the sample ports of the cyclone splitter to obtain additional sample splits as needed. The diameter of the drill holes ranged from 4- $\frac{5}{8}$ in to 5in. All of the drilling was completed with a down-hole percussion hammer with a conventional interchange.

Fortune River contracted with Eklund to conduct Phase II and Phase III drilling in 2008. A total of 16,220ft was drilled in 14 holes from January 14 to August 10, 2008. The holes were 420 to 1,520ft deep. Eklund utilized a TH-75 truck-mounted RC drill rig in both phases. A rotating wet splitter was used to obtain cuttings samples. Hole diameters ranged from 5- $\frac{3}{4}$ in to 6in. Drill-holes were generally completed with a down-hole percussion hammer aided by an auxiliary compressor, but many of the deeper holes required completion with a tricone drill bit. Fortune River employed a geologist or field agent trained in industry-standard practices to monitor the rig and to log the holes.

Noble and Ranta's (2007) description of Fortune River's required sampling procedures for Drift are summarized below. Bravada has indicated that the procedures were applicable to Eklund's drilling in 2008 as well, unless specified otherwise. RC drill-hole samples were collected every five feet, and a duplicate was collected every 50ft. Some of the 2007 holes were drilled dry to depths of approximately 300ft, where drilling conditions (clay, broken rock, etc.) wet drilling was required. In 2008, all holes were drilled wet starting at 20ft. When drilling dry, the entire sample was collected in a five-gallon plastic bucket lined with a 20in X 24in bag. If dry samples filled more than about 2/3 of a bucket, a 50% split was obtained using a Gilson splitter. The target weight was about 10lb (3kg). An approximate 50% split of wet samples were collected from the rotating cyclone splitter in a five-gallon bucket lined with a 20in x 24in cloth bag. The fluid portion of the sample effluent generally overflowed the bucket during drilling, but the sampler was instructed to tie the bags to retain the fluid portion that did not overflow the bucket to the extent practical. Sample effluent overflow occurred most commonly with the deeper drilling at Deep Min in 2008, where there was an increase flow of groundwater. In 2007, duplicate samples of dry samples were obtained using a Gilson splitter and were collected from a separate port exiting the wet splitter for wet samples (written communication, Crist, 2010.).

The Wind Mountain fault, located on the west side of the Wind pit, is characterized by a strongly fractured zone. The sample size retrieved during drilling within the structure was generally reduced at about four pounds on average. However, in some holes that penetrated the fault zone, circulation was lost with no

sample recovery. Any future deep RC or core drilling program through the Wind Mountain fault should prepare for intervals with intensely broken rock and voids possibly exceeding 100ft.

### **10.3.2 DRILL TARGETS AND RESULTS**

Two of the 13 holes drilled in 2007, as well as adjacent AMAX holes, tested a portion of the original Breeze deposit that had not been mined, reportedly due to a royalty dispute during mining in the early 1990s. A near-surface pod of mineralization near the Breeze pit was shown to exist. Overall, the 2007 drilling results confirmed that potentially leachable gold and silver mineralization remained unmined beneath and adjacent to the existing pits and demonstrated that there was considerable exploration potential along the 1.8mi-long zone of exposed mineralization.

The majority of the drilling in 2008 tested for high-grade precious metal mineralization at depth along a 4,000ft section of the Wind Mountain fault, including the area between the Wind and Breeze pits. The fault zone was intersected in several holes, but no bonanza-grade mineralization was encountered. Lava flows of the Pyramid sequence beneath the Truckee Formation were encountered in several holes. Fluid flow along the Wind Mountain fault may have been more constrained in the less permeable lava flows, potentially concentrating precious metals within the fault. This scenario may represent a new host target at depth.

Gold mineralization in Deep Min zone was discovered by relatively deep drilling on the west, hanging-wall side of the Wind Mountain fault in the vicinity of the Wind pit. Nine holes penetrated relatively thick zones of gold mineralization, which has been dropped down approximately 700ft from the sub-horizontal Wind deposit by the fault. Significant intercepts included 110ft of 0.013oz Au/ton (0.448g Au/t) and 540ft of 0.016oz Au/ton (0.535 g Au/t).

## **10.4 BRAVADA – 2011 TO 2021**

Bravada carried out drilling between 2011 and 2021 at the Wind Mountain property. Ninety-two holes were drilled for a total of 36,670ft during Bravada's campaigns.

### **10.4.1 DRILLING EQUIPMENT AND SAMPLING PROCEDURES**

The following procedures apply to all Bravada drilling from 2011 to 2021, except where differences are noted in text for specific campaigns. A geologist is generally on the drill site for set up, drilling and sampling. The geologist ensures that the rig is positioned at the pre-determined location located using a hand-held GPS unit. The drill rig was oriented by the geologist with a Brunton compass for angle holes, and the inclination was applied by the driller and checked by the geologist.

Almost all the drilling was RC and has been accomplished utilizing a standard down-the-hole hammer bit ranging in diameter from approximately 4 ¾" to 6" in diameter. Drill samples were collected every 5ft. A duplicate was collected every 50ft in 2011 and 2012, except in rare instances where drilling problems were encountered; no duplicate samples were collected after 2012. The drillers were provided with pre-labeled 20" X 24" sample bags with the hole number and maximum depth of the five-foot interval marked on the bag. The exposed chain drive on the drill rig was marked with flagging or paint in five-foot intervals signifying the desired interval to be routinely sampled.

Water was injected for all drilling to reduce dust. The rotating wet splitter was adjusted to produce roughly 50% sample splits, with the target weight being about 10lb (3kg). Samples were consistently collected from the same cyclone splitter port in a five-gallon bucket lined with a 20in x 24in cloth bag. Duplicate samples were 50% splits collected from a different port exiting the wet splitter. Sample recovery was generally good except in intensely broken and sheared rock.

At depths of less than 500 feet, all the rock media and water emitted from the selected discharge could generally be contained within a single five-gallon bucket lined with a 20"X24" cloth bag. To the extent practical, no overflow of the sample bucket was allowed. At drill depths greater than 700 feet, water flows of more than about five gallons per minute ("gpm") generally exceeded the capacity of the five-gallon buckets and the water was permitted overflow. The bag containing the water and rock was tied tightly, retaining the fluid portion that did not overflow the bucket to the extent practical, and the samples were laid out in order on the ground. In warm temperatures, the bags were allowed to decant through the pores of the sample bag thus eliminating most of the water and preserving the solid material. In winter, when temperatures were below freezing, the samples were laid out in order on a large plastic sheet and allowed to freeze. Decanted or frozen samples were transported to the laboratory by either laboratory or Bravada personnel. Duplicate samples were sent to a different laboratory.

Cuttings from the drill holes were collected in a sieve placed under one of the effluent discharges. The drillers poured the unwashed sample into a plastic bag labeled with the interval. The geologist would then wash the sample and place it in a 20-compartment chip tray for later examination.

Bravada completed 50 drill holes totaling 13,485ft at the Wind Mountain project from June 10, 2011 to September 13, 2011. New Frontier Drilling performed the drilling using an MPD 1000 track-mounted RC rig.

Bravada drilled 4,570ft in 12 RC holes from October 18, 2012 through November 6, 2012. Boart Longyear was the drill contractor and used an MPD 1500 rig. Boart Longyear also drilled an additional 1,180ft in seven RC holes from March 19, 2013 through April 2, 2013 with the same rig type.

Bravada conducted drill campaigns in late 2017/early 2018 and in 2020 to test a feeder target area south of the Wind pit. Boart Longyear was the contractor for both programs, and drilled two deep RC holes totaling 3,395ft using an RD-10 rig in 2017/2018 and four additional RC holes totaling 4,175ft with an MPD1500 rig in 2020.

Bravada drilled 17 RC holes in 2021 totaling 7,175ft. Thirteen holes were intended to further define the existing oxide resource near the Breeze open pit, and four holes explored a vein zone encountered in the 2020 feeder target drilling. Boart Longyear was the drill contractor and used an RD-10 RC rig.

#### **10.4.2 DRILL TARGETS AND RESULTS**

Drilling by Bravada in 2011 identified several target areas of shallow oxide gold-silver mineralization, including the North Hill, the North Breeze pit, the South Wind pit and the South End (Bravada news release, February 23, 2012). In addition, 2011 drilling intersected several extensions of relatively higher-grade mineralization along mapped and postulated feeder zones. Drilling during 2011 supported the results of earlier campaigns by confirming the presence of gold and silver grades above currently anticipated open-

pit cutoff grades in some of the waste dump material. Further work would be needed to verify and quantify the gold- and silver-bearing material in the dumps, if Bravada plans to convert some to classified resources.

Two of the 2017/2018 holes drilled to test a feeder target area south of the Wind pit, one located in the South Wind pit and the other near the south end of the property, drilled through the Tertiary volcanics and into the underlying Mesozoic section. The hole in the South Wind pit intersected mineralized Truckee Formation and relatively fresh Pyramid sequence volcanics. However, the southernmost hole intersected low-grade gold and elevated mercury in tuffaceous sediments in the lower Pyramid sequence, potentially identifying a new host rock for future exploration.

In 2020, drill hole WM20-102 in the potential feeder zone south of the Wind pit intersected banded quartz veining. Gold assays were elevated and silver assays were significantly high. A 4.92ft intercept in the vein zone contained 0.012oz Au/ton (0.40 g/t Au) and 7.85oz Ag/ton (269.0g Ag/t). Follow-up drilling in 2021 encountered similar mineralized veins at 1083ft beneath overburden and waste dumps.

Nine of the 13 resource infill holes drilled in 2021 intersected and confirmed near surface, oxidized mineralization. Some of the zones were thicker and contained gold and silver grades that were higher relative to surrounding drill intercepts.

## 10.5 DRILL-HOLE COLLAR SURVEYS

No information is available with respect to collar survey methods for historical drilling. Collar coordinates for the 13 drill holes that Fortune River drilled in 2007 were originally surveyed with a handheld GPS unit. Fortune River contracted with TNT Exploration LLC ("TNT") to professionally survey 25 of the 27 drill holes that they had drilled in 2007 and 2008. Two of the outlying holes were not surveyed by a certified surveyor, but coordinates were obtained using a hand-held GPS device. All hole collars for holes drilled by Bravada from 2011 to 2021, with the exception of a few holes outside the resource areas, were accurately surveyed by TNT.

## 10.6 DOWN-HOLE SURVEYS

Two RC holes drilled by AMAX in 1991 were surveyed for down-hole deviations, but there are no records with respect to the down-hole survey methodology. Most of the shallow holes less than 500 feet drilled by Fortune River/Bravada were not surveyed, but deeper holes generally were. Down-hole deviations were completed for five of the 13 holes drilled by Fortune River in 2007, and 12 of the 14 drill holes in 2008 by IDS using a gyroscopic survey tool. Considerable downward deviation in the inclined holes was measured. The deviations were most pronounced and exceeded 1.5° (2.6ft) per 100ft in holes with shallowest inclinations (i.e. -45°). Large deviations also appear to be associated with holes drilled by track rigs using more flexible, thin-walled pipe. Straighter holes were generally achieved in 2008 by a truck-mounted rig, which used 20ft drill rods and stabilizers. Down-hole surveys were performed by IDS for the two holes drilled by Bravada in 2017, and two of the four holes drilled by Bravada in 2020.

## 10.7 GROUND WATER AND TEMPERATURE

Groundwater discharge from 2007 drill holes was generally less than 15 gallons per minute and was observed only in holes that penetrated more than 700 vertical feet beneath the surface. For purposes of this

discussion, groundwater discharge is the estimated quantity of effluent discharged from the cyclone splitter, excluding water injected to maintain circulation. Although minor, isolated pockets of water may have been encountered above the top of the groundwater table, no excess discharge was recorded. The highest quantity of groundwater encountered was estimated at 50 gpm from 745ft to 870ft in drill hole WM07006. The flow dissipated abruptly to about 10 gpm below 870ft. Actual groundwater discharge from this hole was probably less than estimated because percussion hammer bits become ineffective with increased water inflow. Since all holes, including the 1,000ft vertical hole, were completed with a hammer bit, the actual quantity of ground water encountered could not have been significantly high.

During the down-hole surveying described in Section 10.6, groundwater temperatures were also measured in five holes in 2007. A maximum measured temperature of 95.8°F was recorded in WM07006 at a depth of 630ft. Groundwater temperatures encountered in all 2007 drilling was never observed to be high enough to suggest input from hot-spring sources.

Fortune River drilled several relatively deep drill holes into the Wind Mountain fault zone in 2008. At depths as shallow as about 500ft, several holes penetrated strongly fractured and silicified rock near the Wind Mountain fault zone in the vicinity of the Deep Min deposit that was saturated with groundwater. The water effluent exiting the cyclone splitter was measured at approximately 120 gallons per minute at depths of about 1,000ft by recording the length of time to fill a five-gallon bucket. IDS measured water temperatures during down-hole surveying. The highest temperature recorded was 114°F at a true vertical depth of 1,235ft (drill-hole depth of 1,301ft) in drill hole WM08-024, which targeted Deep Min mineralization.

Sufficient drilling has been done by AMAX, Fortune River, and Bravada to indicate that no geothermal conditions will hinder the mining of the established near-surface resource. Down-hole temperature data should continue to be collected to investigate geothermal conditions at depth. Significantly high temperatures could impact mining of deep, potentially underground-mineable mineralization that may be discovered in the future.

## 11.0 SAMPLE PREPARATION, ANALYSES, AND SECURITY

### 11.1 DRILLING AND SAMPLING PROCEDURES

This section summarizes all information known to Mr. Lindholm relating to sample preparation, analysis, and security, as well as quality assurance/quality control procedures and results, that pertain to the Wind Mountain project. The description of methods and procedures used for sampling, sample preparation, analyses and security for work done by prior operators (Chevron, Santa Fe and AMAX) from 1982 to 1991, and Fortune River/Bravada carried out from 2007 through 2011, is summarized from Ristorcelli and Dyer (2014), which was in turn partly taken from Noble and Ranta (2007). Procedures and protocols for Bravada's 42 new holes drilled from 2012 to 2021 are summarized as well.

#### 11.1.1 HISTORICAL DRILL SAMPLES – 1982 TO 1991

Santa Fe, Chevron, and AMAX are thought to have used standard sample collection, sample preparation, and analytical techniques in their exploration and evaluation efforts that were industry practice at the time, but detailed descriptions of the procedures are not available.

Various commercial laboratories, including Bondar Clegg Inc. (for AMAX), ALS Chemex ("ALS", for Santa Fe), Rocky Mountain Geochemical Corp. (now Bureau Veritas), North American Laboratories and Cone Geochemical, Inc. were involved in the assaying at different phases of the exploration and mining activity. Blasthole samples appear to have been analyzed by AMAX's in-house laboratory. RESPEC has no information regarding laboratory certifications at the time of the historic drilling.

There are no assay quality control data available for the drilling completed by AMAX, Chevron or Santa Fe. Standards were inserted at the rate of one for every 50 samples in the AMAX exploration holes, but RESPEC has no further information regarding historical Quality Assurance/Quality Control ("QA/QC") procedures. Nothing is known of the sample security used by AMAX, Santa Fe or Chevron.

#### 11.1.2 FORTUNE RIVER SURFACE SAMPLES

Assay results of initial samples collected by Fortune River were used to guide their first exploration drilling program. All of Fortune River's rock-chip samples generally consisted of approximately 2lbs to 9lbs of rock. The samples were collected and transported directly to the laboratories in Sparks, Nevada by Crist (2007a). The samples were crushed at the laboratory to 70% -10 mesh from which a 200g, 500g or 1,000g pulp (90% -150 mesh) was prepared for each sample. A 30g digestion of the pulp material was assayed by fire assay with AA finish for gold, and a 0.5g split was digested for multi-element analysis by ICP.

ALS, American Assay Laboratories ("American Assay") and Inspectorate conducted all analytical and sample preparation work done on Fortune River's surface samples from the Wind Mountain property. ALS's Reno analytical facility is individually certified to ISO 9001:2008 standards and has received accreditation to ISO/IEC 17025:2005 standards from the Standards Council of Canada for fire assay for gold by atomic absorption (ALS website as of February 22, 2012). American Assay did not have ISO certification at the time of the 2012 technical report (Ristorcelli and Dyer, 2014), but their website indicated that they did participate in a variety of testing programs. American Assay's website as of the effective date of this report states that, "*We continually strive to provide testing services that meet or exceed the requirements of ISO/IEC*

17025,...”, but does not claim accreditation. Inspectorate’s laboratories are accredited to relevant national and international standards, including ISO 17025, according to their website.

Fortune River’s quality control for surface samples from Wind Mountain (Crist, 2007a) consisted of a limited number of coarse blanks that were inserted into the sample stream. No gold was reported in assays of the blank samples by the laboratory. Internal standards and pulp duplicate assays utilized by the laboratories were relied upon for additional quality control. Comparison of original and the laboratory’s pulp duplicate gold analyses varied within about 10%.

### 11.1.3 FORTUNE RIVER DRILL SAMPLES – 2007 TO 2008

During Fortune River’s RC drill programs, samples were laid out in order at the drill site. With the exception of one hole, all drill sites and associated samples were located securely within the mine fence and secured with a locked gate, well away from public access. Samples were either delivered directly to the laboratory by a Fortune River geologist or transported from the mine site by laboratory personnel. Samples were never left on the drill site during days when drill crews were on break but were unattended at night in the 2007 program and in the 2008 program when drilling was carried out only during the day. No signs of sample tampering were noted by Bravada geologists on site.

Noble and Ranta’s (2007) description of Fortune River’s required sampling procedures are summarized below. Bravada has indicated that the procedures were applicable to drilling in 2008 as well, unless specified otherwise. RC drill-hole samples were collected every five feet, and a duplicate was collected every 50ft. When drilling dry, the entire sample was collected in a five-gallon plastic bucket lined with a 20in X 24in bag. If dry samples filled more than about 2/3 of a bucket, a 50% split was obtained using a Gilson splitter. The target weight was about 10lb (3kg). An approximate 50% split of wet samples were collected from the rotating cyclone splitter in a five-gallon bucket lined with a 20in x 24in cloth bag. The fluid portion of the sample effluent generally overflowed the bucket during drilling, but the sampler was instructed to tie the bags to retain the fluid portion that did not overflow the bucket to the extent practical. Sample effluent overflow occurred most commonly with the deeper drilling at Deep Min in 2008, where there was an increase flow of groundwater. In 2007, duplicate samples of dry samples were obtained using a Gilson splitter and were collected from a separate port exiting the wet splitter for wet samples (written communication, Crist, 2010.).

A 250g pulp was prepared by Inspectorate from the 5ft-interval drill-cutting sample for the first drill hole, after which Fortune River increased the pulp size to 500g. The pulps were assayed for gold using a 30g fire-assay (“FA”) with an AA finish and a multi-element ICP package that included silver. Samples over 10ppm Au were typically re-run using FA with a gravimetric finish.

Silver was analyzed as part of an ICP package using three-acid digestion. Some of the more important silver-bearing intervals were checked by FA with a gravimetric finish. The ICP silver values were generally higher than those from FA, especially when derived from samples that contained relatively low concentrations (less than 15ppm Ag). ALS and Inspectorate personnel both indicated that FA results are often lower than those derived from the same sample by ICP or AA when the silver content of the sample is less than 30ppm Ag, possibly due to volatilization of silver during the fire assay procedure.

Several of the trace elements analyzed by the three-acid digestion ICP analysis, in particular Hg, were apparently precipitated or volatilized from solution by the three-acid attack and, therefore, were not detected (Noble and Ranta, 2007). In addition, there may have been issues with interferences using the three-acid digestion, as some unexpected elements were anomalously high (e.g. Bi, Tl). Ag, As, Cu, Pb, Zn, and Se analyses were likely relatively accurate (Noble and Ranta, 2007). Mercury was consistently reported as below detection limits, but other Hg analyses detected anomalous Hg in Wind Mountain mineralization.

Assay quality control for the Fortune River drilling programs consisted of coarse blank samples, standard pulps, and field duplicate samples. ALS assayed the duplicate samples for gold only, using a 30g FA followed by an AA finish. Approximately one standard and one blank were inserted into the sequence of 5ft drill samples for every increment of 500ft (e.g. two of each for holes between 500ft and 1,000ft total depths). Standards and blanks were given a number ending in '3' and assayed in sequence with the drill samples. Each sequence of samples submitted to Inspectorate began with a blank in order to identify any lab contamination from previous batches and contained at least one standard.

#### 11.1.4 BRAVADA DRILL SAMPLES – 2011 TO 2021

During Bravada's RC drill programs, samples were laid out in order at the drill site, most of which were located within the mine fence, well away from public access. The mine entrance was generally locked, but open on occasion. Samples were either delivered to the laboratory by a Bravada geologist or were picked up by laboratory staff for transport within several days of completion of each drill hole. Drill samples were not left on site during breaks. Drilling through 2013 was carried out in 12-hour day shifts, and drilling since then has been 24-hour day/night shifts, with at least one Bravada representative on site during drilling except during drill breaks.

The following procedures apply to all Bravada drilling from 2011 to 2021, except where differences are noted in text for specific campaigns. Drill samples were collected every 5ft. A duplicate was collected every 50ft in 2011 and 2012, but no duplicate samples were collected after 2012. The drillers were provided with pre-labeled 20" X 24" sample bags with the hole number and maximum depth of the five-foot interval marked on the bag. The exposed chain drive on the drill rig was marked with flagging or paint in five-foot intervals signifying the desired interval to be routinely sampled.

Water was injected for all drilling to reduce dust. The rotating wet splitter was adjusted to produce roughly 50% sample splits, with the target weight being about 10lb (3kg). Samples were consistently collected from the same cyclone splitter port in a five-gallon bucket lined with a 20in x 24in cloth bag. Duplicate samples were 50% splits collected from a different port exiting the wet splitter. Sample recovery was generally good except in intensely broken and sheared rock.

At depths of less than 500 feet, all the rock media and water emitted from the selected discharge could generally be contained within a single five-gallon bucket lined with a 20"X24" cloth bag. To the extent practical, no overflow of the sample bucket was allowed. At drill depths greater than 700 feet, water flows of more than about five gpm generally exceeded the capacity of the five-gallon buckets and the water was permitted overflow. The bag containing the water and rock was tied tightly, retaining the fluid portion that did not overflow the bucket to the extent practical, and the samples were laid out in order on the ground. In warm temperatures, the bags were allowed to decant through the pores of the sample bag thus eliminating

most of the water and preserving the solid material. In winter, when temperatures were below freezing, the samples were laid out in order on a large plastic sheet and allowed to freeze. Decanted or frozen samples were transported to the laboratory by either laboratory or Bravada personnel. Duplicate samples were sent to a different laboratory.

Cuttings from the drill holes were collected in a sieve placed under one of the effluent discharges. The drillers poured the unwashed sample into a plastic bag labeled with the interval. The geologist would then wash the sample and place it in a 20-compartment chip tray for later examination.

Inspectorate conducted all sample-preparation and analytical work on the primary RC drill samples, whereas field duplicates were sent to American Assay. A 500g sample pulp was prepared by both labs from the drill samples collected on 5ft intervals. The pulps were then assayed for gold using a 30g FA with an AA finish. The pulps were also assayed for silver using a four-acid digestion with an AA finish. Overlimits for gold and silver were re-assayed using techniques with higher detection limits, generally FA-gravimetric. Metallic-screen assays were performed during the earlier phases of drilling, but the grades at the Wind Mountain project were generally low and coarse gold was not commonly observed, so metallic screen analyses were discontinued.

Each sequence of samples submitted to Inspectorate began with a coarse blank in order to identify any lab contamination from the previous batch of samples. A coarse blank sample or standard pulp was then inserted into the sample stream afterwards approximately every 100ft. Blanks and standards were inserted randomly or at regular intervals at various time during the drilling campaigns. Field duplicate samples were collected approximately every 50ft during drilling, taking a roughly 50% split from a different port of the cyclone splitter. Therefore, each 100ft interval of samples has at least one blank or standard and two field duplicates. The standard pulps were prepared by Mine Exploration Geochemistry ("MEG") and were certified for gold and some for silver.

Each lab conducts internal QA/QC by analyzing standards and pulp duplicates, the results of which are received with drill-sample assays and evaluated. Few if any significant issues were found in both Bravada's and the laboratory's QA/QC data, so no re-assays were requested. QA/QC issues that did occur were not extreme and were generally associated with batches that contained limited mineralized intervals. Therefore, any impact on potential resource estimates was deemed to be minimal.

## 11.2 QUALITY ASSURANCE/QUALITY CONTROL

QA/QC programs are implemented in order to provide a means by which the accuracy and precision of the assaying that was performed on the rock chip, soil, drilling and other samples can be assessed to ensure the highest possible data quality. At Wind Mountain, Fortune River and Bravada personnel submitted QA/QC samples, including Certified Reference Materials ("CRM", also known as standards), blanks and duplicates, with drill samples to evaluate the quality of assaying conducted by the various laboratories. Santa Fe, Chevron and AMAX were reported by Noble and Ranta (2007) to have implemented QA/QC programs during exploration and evaluation efforts, but no descriptions of procedures were available other than AMAX inserted standards every 50ft with their drill samples.

The following analysis of QA/QC data is based on the drilling programs by Fortune River and Bravada carried out from 2007 through 2011 (Ristorcelli and Dyer, 2014). QA/QC data from Bravada’s 2012 to 2020 drilling campaigns are discussed as well. As noted in Section 11.1.1, there is no information on QA/QC for historic drilling.

Noble and Ranta’s (2007) comparison of blasthole and exploration data is summarized below. The exercise provides an additional measure of the overall reliability of drill-hole assays.

### 11.2.1 COMPARISON OF NOBLE AND RANTA (2007) BLASTHOLE MODEL AND EXPLORATION DRILL-HOLE GRADES

Gold and silver grades from the blasthole were compared to exploration drill-hole grades by Noble and Ranta (2007). Blasthole holes were paired to exploration drill-hole composites, maintaining a maximum of 25ft between the paired samples. The results indicated very little difference between blasthole and drill-hole gold grades (Figure 11-1), however, blasthole silver grades were 66% higher than the exploration drill-hole counterparts (Figure 11-2). The cause for the difference in silver grades is not understood.

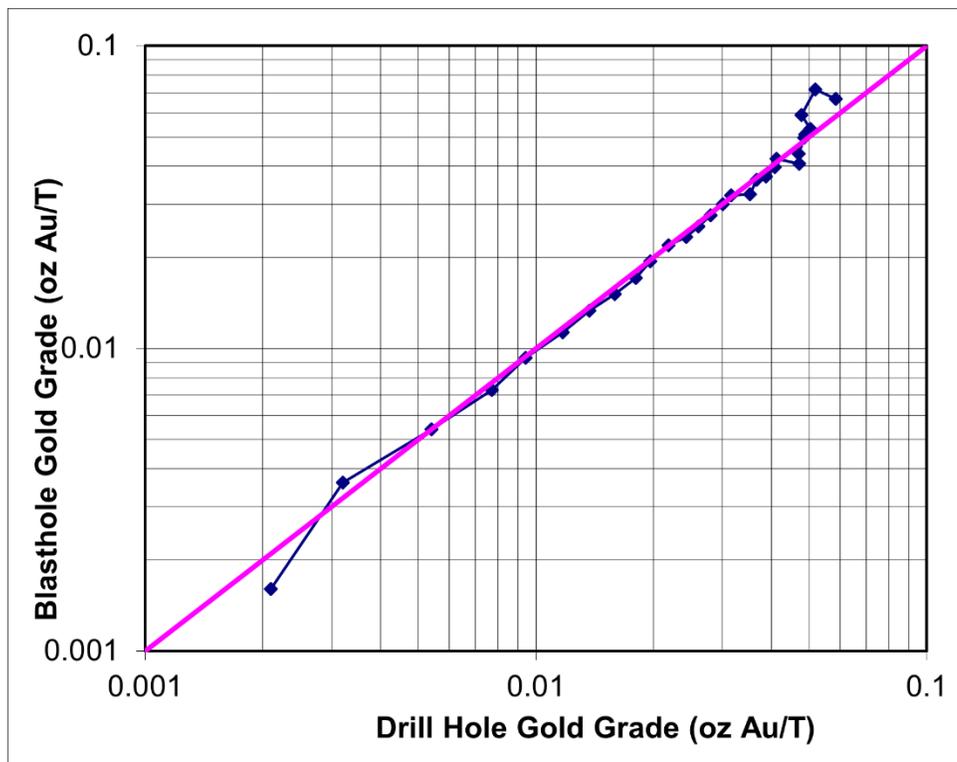


Figure 11-1. Blasthole Versus Exploration Drill-Hole Grades - Gold (from Noble and Ranta, 2007)

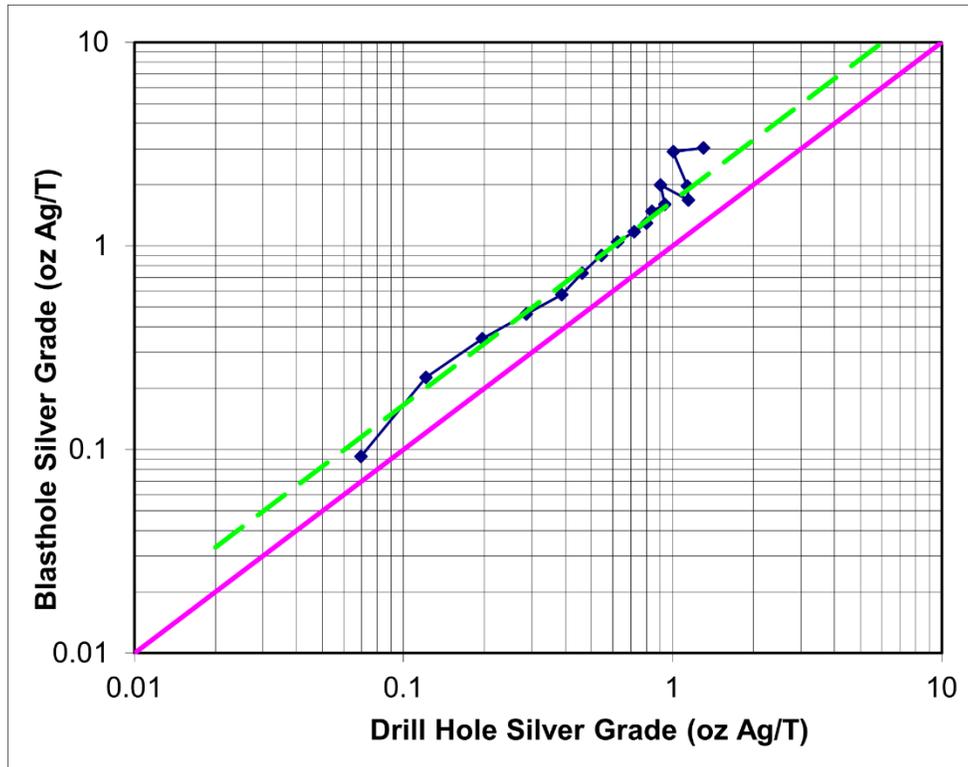


Figure 11-2. Blasthole Versus Exploration Drill-Hole Grades - Silver (from Noble and Ranta, 2007)

## 11.2.2 FORTUNE RIVER AND BRAVADA QA/QC – 2007 TO 2011

### 11.2.2.1 CERTIFIED REFERENCE MATERIALS

Certified Reference Materials (“CRM”, also known as standards) are commercially available pulverized materials certified to contain a known concentration of one or more elements. CRMs are usually obtained from commercial suppliers, which provide specifications including the average of many analyses by multiple laboratories, and the standard deviation of the analyses.

Nineteen CRMs representing a range of gold grades have been used at various times during the 2007, 2008, and 2011 drilling programs at Wind Mountain. Specifications for all CRMs, which were obtained from and are certified by MEG, are summarized in Table 11-1. Standards MEG-Au.09.01, MEG-Au.09.02, and MEG-Au.09.03, the first three listed in Table 11-1, were employed during the 2011 program and are certified for both gold and silver. The other standards listed were used during the 2007 and 2008 programs and are certified only for gold.

Table 11-1 Specifications of Standards Used for the Fortune River/Bravada 2007 to 2011 Drilling Programs

CRM Number in Database	MEG CRM Number	Number of Insertions	Certified Target Value Au ppm	Lab Average Au ppm	Certified Target Value Ag ppm	Lab Average Ag ppm
MEG-Au-09.01-.684	MEG-Au.09.01	24	0.687	0.713	9.498	9.585
MEG-Au-09.02-.184	MEG-Au.09.02	27	0.185	0.184	0.164	0.187
MEG-Au-09.03-2.09	MEG-Au.09.03	23	2.093	2.09	17.27	17.218
S104007X	MEG JOB # S104007X	7	0.727	0.75		
S104008X	MEG JOB # S104008X	1	0.662	0.662		
S104010X	MEG JOB # S104010X	4	5.096	5.097		
S104011X	MEG JOB # S104011X	4	7.129	7.129		
S105001X	MEG JOB # S105001X	1	1.841	1.843		
S105002X	MEG-S105002X	10	0.44	0.44		
S105003X	MEG JOB# S105003X	7	0.524	0.525		
S105004X	MEG-S105004X	8	3.752	3.752		
S105005X	MEG-S105005X	3	2.416	2.416		
S105006X	MEG-S105006X	3	4.516	4.516		
S107001X	MEG-S107001X	1	0.234	0.234		
S107002X	MEG JOB # S107002X	4	0.965	0.965		
S107005X	MEG-S107005X	5	1.347	1.343		
S107008X	MEG JOB # S107008X	6	1.911	1.911		
S107009X	MEG-S107009X	1	4.734	4.734		
S107020X	MEG-S107020X	1	0.321	0.32		

Notes: MEG's certified targets and standard deviations and mean assay values and calculated standard deviations from the assaying laboratory is provided for the CRMs, as shown in the table. RESPEC used the certified target value as the best or accepted value when evaluating the results obtained for the standards.

RESPEC evaluated the CRMs using charts such as the example shown in Figure 11-3. RESPEC defines a failure as a CRM assay above or below a three-standard deviation threshold relative to the target value. The target value and standard deviation is derived from the round-robin testing conducted by the supplier (e.g. MEG) to certify the CRM as provided on the certificate. On Figure 11-3, the solid red lines show the target value, the target value plus three-standard deviations (Upper Specification Limit ("USL")), and the target value minus three-standard deviations (Lower Specification Limit ("LSL")). Solid blue lines indicate the mean value of the standard assays from the laboratory (e.g. ALS or Inspectorate), and the mean plus (Upper Control Limit, ("UCL")) or minus (Lower Control Limit, ("LCL")) three standard deviations, determined using Wind Mountain's analytical data. Dashed red and blue lines represent the warning limits, which are the target value or mean value of the standard assays plus or minus two-standard deviations.

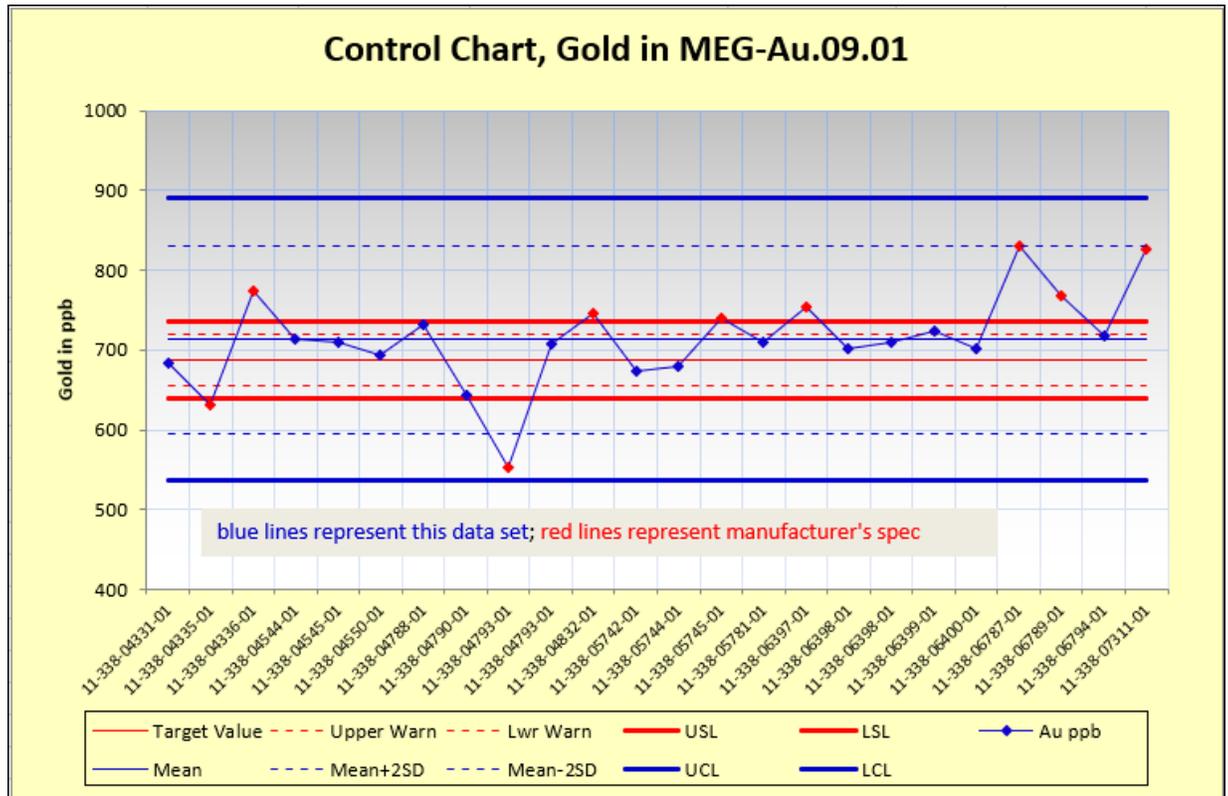


Figure 11-3, Control Chart for Gold Assays of CRM MEG-Au.09.01

The chart in Figure 11-3 for the CRM MEG-Au.09.01 indicates seven of the 24 total CRM gold assays above and two below the three-standard deviation threshold. There were more failures associated with MEG-Au.09.01 than with any of the other CRMs, so this example represents the worst case for the standard testing. Also, it must be noted that three of the CRM assays barely exceeded the specification limits.

Appendix B provides a listing all of failures that RESPEC identified in analyses of CRM assays. Of 140 total CRM assays, there are 15 and 7 values above and below the specification limits, respectively, yielding an overall 16% failure rate. Of the 74 total CRM silver assays, there was only one failure, yielding a reasonable rate of 1.4%.

The mean value of the standard assays from Wind Mountain’s analytical data in Figure 11-3 provides a measure of the overall variability, as indicated by the standard deviation, and bias of the CRM analyses, compared to the certified target values. Some variability and bias are expected, given the small number of CRM assays relative to the extensive testing done for certification of the CRM by the manufacturer. The bias indicated in Figure 11-3 is about 4% high for MEG-Au.09.01, and the relatively high variability as indicated by the high standard deviation of the data is caused by the CRM assays that exceed the specification limits as defined by the certified standard. Table 11-2 summarizes the bias for each CRM relative to the certified target values used by Fortune River and Bravada for the Wind Mountain QA/QC program.

Table 11-2 Summary of Bias in CRM Analyses Relative to Certified Target Values

Standard	Count	Element (units)	Accepted Value	Average Obtained	Bias pct	Comment
MEG-Au.09.01	24	Au ppb	687	713	3.8	
MEG-Au.09.01	24	Ag ppm	9.585	9.8	2.2	
MEG-Au.09.02	27	Au ppb	184	191	3.8	
MEG-Au.09.02	27	Ag ppm	0.187	0.3	60.4	given analytical precision at this grade, this bias is not meaningful
MEG-Au.09.03	23	Au ppb	2090	2202	5.4	
MEG-Au.09.03	22	Ag ppm	17.2	17.7	2.8	low failure at 2.066 ppm Ag not included in average bias.
S104007X	7	Au ppb	750	745	-0.7	
S104008X	1	Au ppb	662	718	8.5	
S104010X	4	Au ppb	5097	4825	-5.3	
S104011X	4	Au ppb	7129	7029	-1.4	
S105001X	1	Au ppb	1843	1932	4.8	
S105002X	10	Au ppb	440	444	0.9	
S105003X	7	Au ppb	525	495	-5.7	
S105004X	8	Au ppb	3752	4029	7.4	
S105005X	3	Au ppb	2416	2331	-3.5	
S105006X	3	Au ppb	4516	4503	-0.3	
S107001X	1	Au ppb	234	200	-14.5	
S107002X	3	Au ppb	965	1037	7.5	low failure at 300 ppb Au not included in average bias.
S107005X	5	Au ppb	1343	1290	-3.9	
S107008X	6	Au ppb	1911	1939	1.5	
S107009X	1	Au ppb	4734	4183	-11.6	
S107020X	1	Au ppb	320	432	35	

In general, the bias for each CRM in Table 11-2 is not excessively high or low. For those CRMs analyzed fewer than five times, the bias is not meaningful. The results for MEG-Au.09.03 and S105004X do suggest that in a grade range of about 2000 to 4000 ppb Au, there is a risk that gold analyses could be biased 5% to 7% high.

#### 11.2.2.2 BLANKS

Blanks are samples that contain undetectable levels of the metal or metals of interest, which are gold and silver at Wind Mountain. Blank samples are inserted into the sample stream, to ensure that no contamination is occurring in the laboratory during sample preparation and analysis. Blanks are preferably inserted following mineralized intervals, because contamination is commonly caused by insufficient removal of material from the crushers and pulverizers after the previous sample has been prepared. Contamination may be occurring but cannot be detected if the blank follows a barren sample. Two types of blanks are generally used, coarse blanks to test for contamination during the crushing phases of sample preparation, and pulp blanks, which test for contamination during the analytical phase. Coarse blanks are preferred,

because the majority of contamination in the assay laboratory takes place during sample preparation, whereas very little occurs during analysis.

There are 166 gold analyses of material identified as blanks in the database. The results obtained are illustrated in Figure 11-4. For the 2007 data, three blank gold assays were shown to exceed a control limit, which was arbitrarily set to three-times the detection limit at the time the technical report (Ristorcelli and Dyer, 2014) was written. Two other blank assays were above detection. Similarly, in 2011, one blank assay exceeded the arbitrary limit, and two others were above detection. RESPEC has no information that would explain these occurrences.

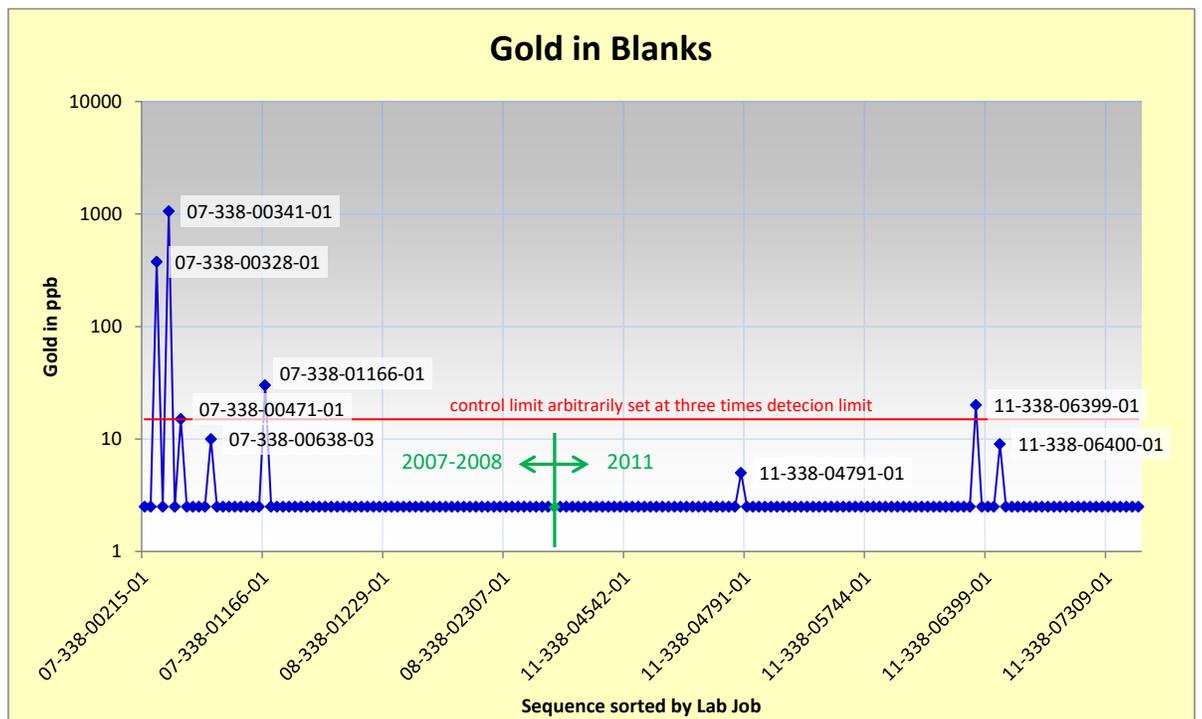


Figure 11-4. Gold in Blanks

Notes: A logarithmic scale is used on the Y axis for legibility. Results reported as less than detection limit are plotted at 2.5 ppb Au.

There are 163 pulp blank analyses for silver. The results obtained are illustrated in Figure 11-5. It is notable that in 2007, from laboratory batch 07-338-00951-01 to 07-338-01236-01, there were eight silver blank assays that exceeded the control limit of five-times the detection limit. Six additional blank assays from 2007 to 2011 were above the control limit as well. There is no explanation known for these high blank assays. Also Figure 11-5, shows that there are relatively few blank silver assays above the detection limit in the 2011 data compared to the period from 2007 to 2008. Again, there is no explanation for the differences between the two data sets or the large number of assays above detection. In summary, there is cause for concern regarding the reliability of silver analyses in 2007 and 2008, particularly associated with the range of batches noted in 2007.

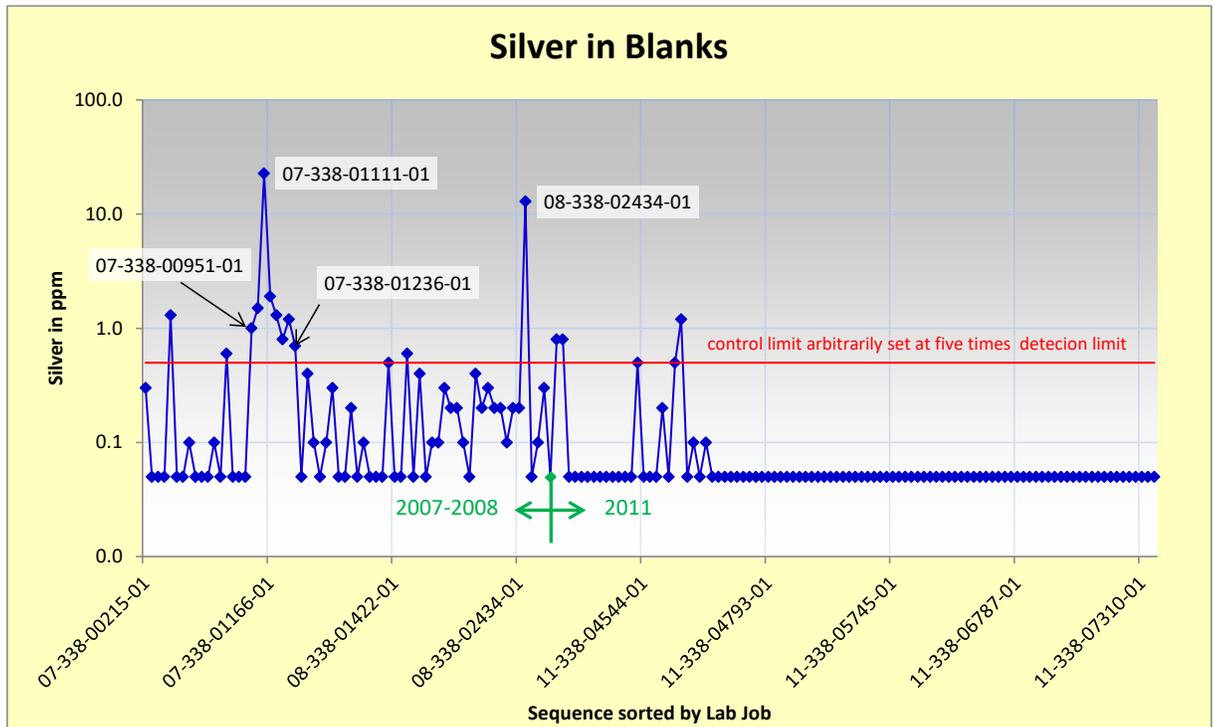


Figure 11-5. Silver in Blanks

Notes: A logarithmic scale is used on the Y axis for legibility. Results reported as less than detection limit are plotted at 0.05 ppm Ag.

### 11.2.2.3 FIELD DUPLICATES

RC field duplicates were collected at the rig, with one sample being sent to the primary lab for analysis and the other sent to a different lab. RC field duplicates analyzed by a single lab provides a measure of the repeatability of assays, which is a function of the natural heterogeneity inherent in the distribution of gold and silver in a given deposit. The consistency of sampling and splitting procedures at the rig and laboratory can also factor into the results. Obtaining assays of original and duplicate samples from different laboratories adds extra variables (e.g. differences in precision, sub-sampling protocol, and bias between laboratories) to the analysis, which makes the exercise less meaningful.

RESPEC evaluated the duplicate analyses using scatterplots similar to the example shown in Figure 11-6, and relative difference plots similar to those in Figure 11-7 and Figure 11-8. The example charts in the three figures are for gold in the 2011 program, for which Inspectorate was the primary lab (lab "A" in the charts) and American Assay was the check lab (lab "B"). These labs were also used for silver analyses in the 2011 program. Similar charts were made and evaluated for the duplicate data sets for 2011 silver data and for the 2007/2008 gold and silver data. In 2007-2008, Inspectorate was the primary lab and ALS was the check lab.

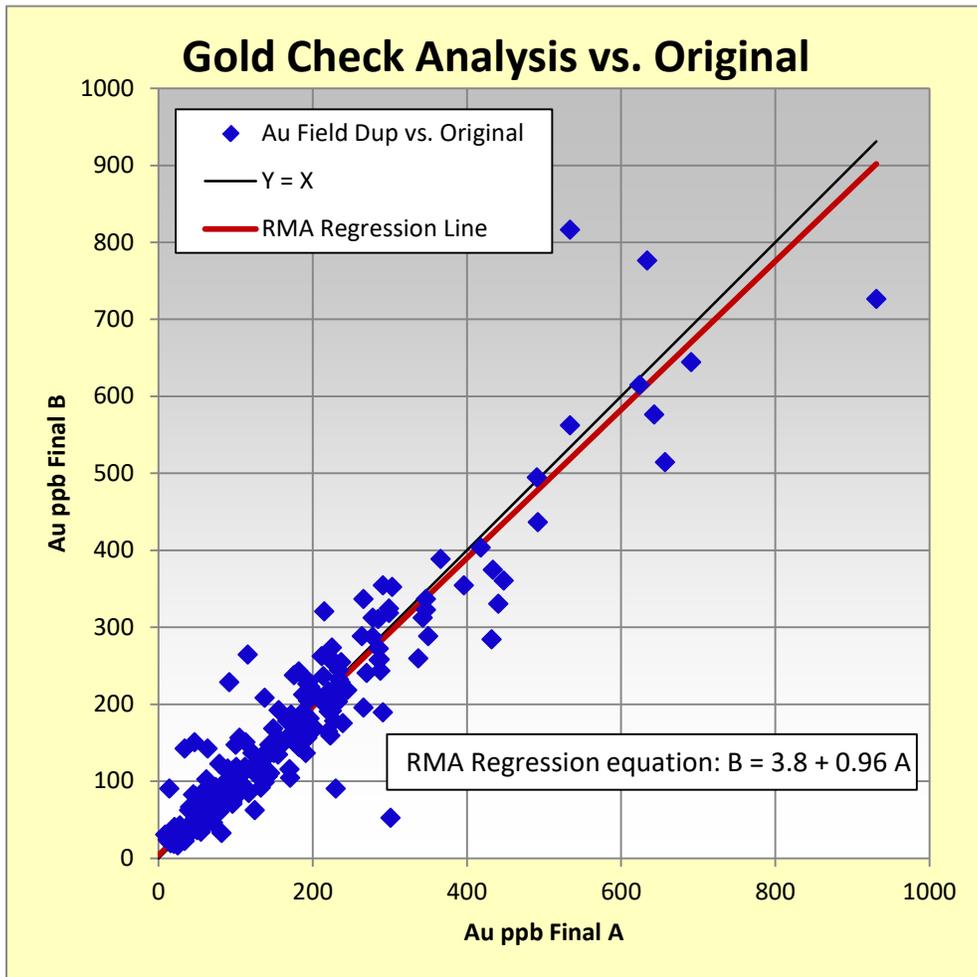


Figure 11-6. Gold Check Analysis vs. Original 2011

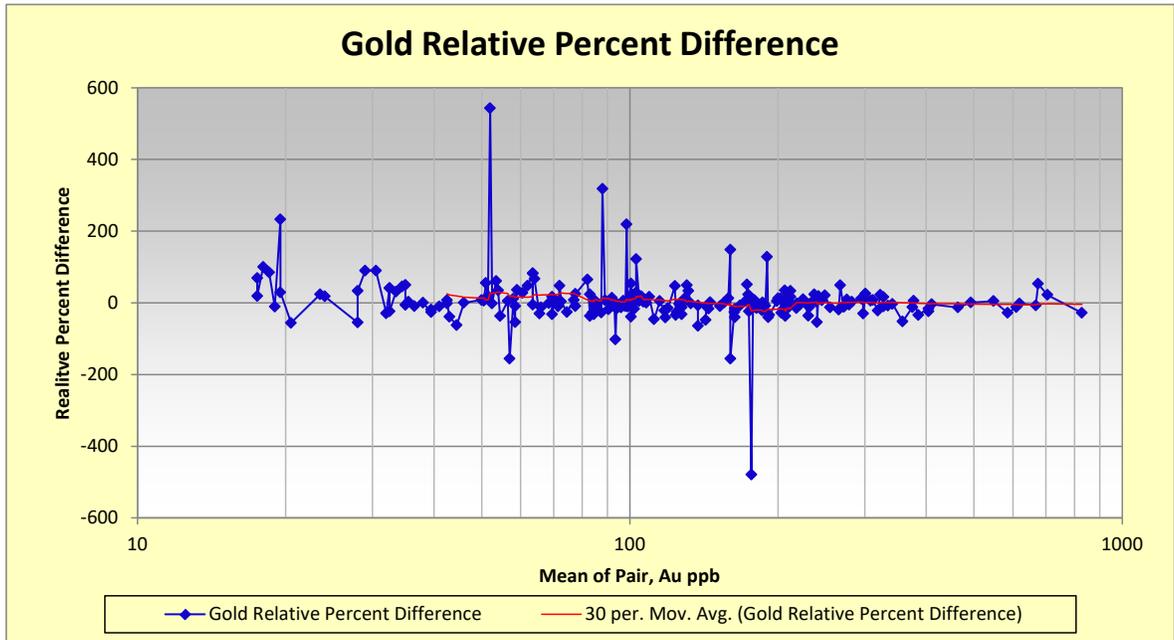


Figure 11-7. Gold Relative Percent Difference 2011

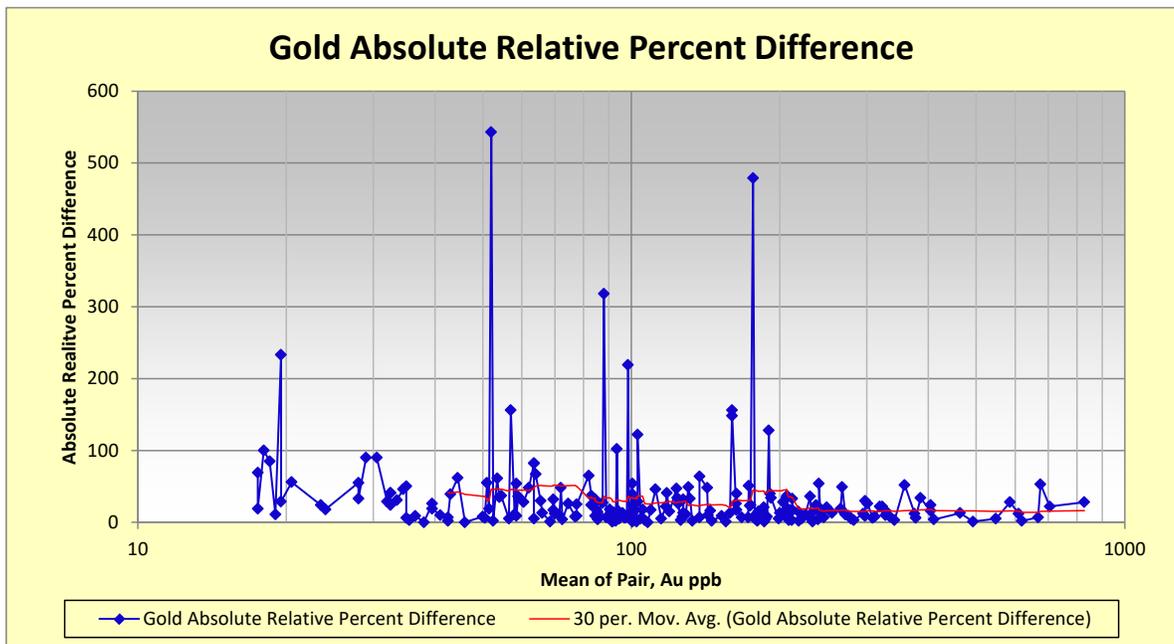


Figure 11-8. Gold Absolute Relative Percent Difference 2011

All data were initially included in the charts, however, it was evident that the relationship between the originals and duplicates was skewed by a few outlier sample pair assays. These outliers, which could represent errors in the data, tend to obscure the fundamental relationship between the two sets of analyses. RESPEC identified and removed up to four of the most egregious outliers from each data set in order to clearly depict the comparison of duplicate and original assays in Figure 11-6 through Figure 11-8.

The relative percent differences (“RPD”) can be expressed using the following equations:

Equation 1:  $RPD(\max) = 100 \times ((\text{Duplicate} - \text{Original}) / (\text{Lesser of } (\text{Duplicate}, \text{Original})))$ ; or

Equation 2:  $RPD(\text{mean}) = 100 \times ((\text{Duplicate} - \text{Original}) / (\text{Mean of } (\text{Duplicate}, \text{Original})))$

Equation 1, which has been applied to the charts in Figure 11-7 and Figure 11-8, uses the lesser of the original and duplicate assay, which yields the highest relative percent difference that can be calculated from the data.

A summary of the results for the field duplicates appears in Table 11-3. Outlier sample pairs have been removed. The data sets also exclude mean-of-duplicate-pair values below given grades, for which the original and/or duplicate samples are below detection. The low values are also lower than potential open-pit cutoff grades and are therefore not meaningful to the evaluation. In all, the gold duplicate sample pairs have an average relative percent difference of +13.3% and +4.9% for the 2007/2008 and 2011 data, respectively. Positive relative differences indicate that the mean duplicate pair gold grades are higher than for the original samples. Silver mean-of-pair relative differences show the opposite relationship, with original sample grades higher on average than the duplicate sample grades.

Table 11-3 Summary of Duplicate Sample Pair Comparisons

	Sample Grades in ppb Au and ppm Ag					Equation 1		Equation 2		Filters
	Count	A Sample	B Sample	Mean of Pair	Difference	Mean of RPD	Mean of Absolute Value of the RPD	Mean of RPD	Mean of Absolute Value of the RPD	
<b>Gold 2007 &amp; 2008</b>	387	162	168	165	5	13.3	27.9	9	20.5	Mean of pair > 15ppb Au, four outlier sample pairs removed
<b>Gold 2011</b>	229	161	159	160	-2	4.9	31.8	2	22.1	Mean of pair grade >17pp Au, 1 outlier sample pair removed
<b>Silver 2007 &amp; 2008</b>	139	8.7	8.2	8.4	-0.4	-5	22.7	-4.6	17.3	Mean of pair > 0.6, four outlier sample pairs removed
<b>Silver 2011</b>	201	7.4	6.8	7.1	-0.6	-27.6	47	-13.5	29.2	Mean of pair > 1 ppm Ag, outlier sample pair removed

As previously noted, the relative differences between original and duplicate sample grades can be a reflection of heterogeneity in the distribution of gold and silver in the deposit, and/or is an indicator of consistency in sample handling and splitting at the rig and in the laboratory. The precise cause cannot be determined, especially with the added variability introduced by using different laboratories for each group of samples.

#### 11.2.2.4 METALLIC SCREEN ANALYSES

A small number of metallic screen analyses for gold and silver were performed on samples also analyzed with standard fire assays. The type of duplicate sample used to obtain the metallic screen analyses is not known. A comparison of the metallic screen to standard FA analyses was done using procedures similar to those described in Section 11.2.2.3 for field duplicate samples. Results are summarized in Table 11-4. The differences in the RPDs are significant, and the difference in the mean of the two sets is 13% and 48% for gold and silver, respectively, with the metallic screen assays overall being lower. The lower metallic screen

assays are inexplicable, particularly in consideration of the results of the comparison of blasthole to exploration grades described above in Section 11.2.1.

Table 11-4 Averages of Comparative Values for Metallic Screen Duplicates

	Sample Grades in ppb Au and ppm Ag					Equation 1		Equation 2		Filters
	Count	Fire Assay	Metallic Screen	Mean of Pair	Difference	Mean of RPD	Mean of Absolute Value of the RPD	Mean of RPD	Mean of Absolute Value of the RPD	
Gold	50	299	261	280.1	-38	-63	90	-20	38	no filter
Silver	12	15.7	8.1	11.9	-8	-155	155	-69	69	no filter

### 11.2.3 BRAVADA QA/QC – 2012 TO 2021

Bravada's QA/QC programs in 2012 to 2013, 2017 and 2020 to 2021 consisted of standard pulps and coarse blank inserted into the sample stream with drill samples. Preparation and pulp duplicates from the various laboratories' internal QA/QC programs were also obtained and evaluated. Table 11-5 summarizes the quantities of QA/QC data by drill program.

Table 11-5. Summary Counts of Wind Mountain QA/QC Analyses

QA/QC Type	Bravada Drill Campaign					
	2012-2013		2017		2020-2022	
	Au	Ag	Au	Ag	Au	Ag
<b>Standards</b>						
Number in Use	3	1	5	4	8	7
Number of Analyses	46	15	12	11	64	63
Number of Failures	3	1	1	0	2	1
Failure Rate (%)	6.5	6.7	8.3	0.0	3.1	1.6
<b>Duplicates</b>						
Internal Laboratory Preparation	0	0	19	19	198	198
Internal Laboratory Pulp	0	0	22	22	21	20
<b>Blanks</b>						
Coarse Blank	57	57	12	12	69	69
<b>Insertion Rates</b>						
Drill Hole Samples	1415	1415	679	679	2029	2027
Total Insertion Rate (%)	6.9	4.9	3.4	3.3	6.2	6.1

#### 11.2.3.1 CERTIFIED REFERENCE MATERIALS

The Bravada's QA/QC programs for all drilling campaigns combined included the use of eight different CRMs of varying gold concentration. Three, five and six different CRMs were used for each of 2012 to 2013, 2017 and 2020 to 2022 drilling programs, respectively. CRM pulps, obtained from MEG, were variously inserted randomly or on regular intervals into the stream with drill samples at a rate of 3.03%, 1.71%, and 2.96% for the 2012 to 2013, 2017, and 2020 to 2022 drill programs, respectively. All CRMs were certified for gold, with most listing (but not certified for) silver. Only one of the standards, MEG-Au.12, was used in all three drill programs.

Table 11-6 summarizes the CRMs used for gold and silver for each drilling program.

**Table 11-6. Summary of CRMs used by Bravada for All Drilling Programs**

Standard ID	Drill Campaign	Number of Insertions	Certified Au Grade (ppb)	Certified Au Standard Deviation	Listed Ag Grade (ppm)
MEG S107007X	2017	4	1526	0.068	7.4
MEG S107009X	2020-21	10	4734	0.194	7.4
MEG-Au.09.01	2017 2020-21	4 18	687	0.073	9.59
MEG-Au.09.03	2017 2020-21	2 26	2100	0.166	17.2
MEG-Au.10.05	2020-21	5	210	0.015	0.4
MEG-Au.11.19	2012-13 2020-21	14 1	120	0.013	Not Listed
MEG-Au.12.23	2012-13 2017 2020-21	15 1 2	290	0.027	2
MEG-Au.12.25	2012-13 2017	17 1	719	0.032	Not Listed

RESPEC defines a failure as a CRM assay above or below a three-standard deviation threshold (USL and LSL) relative to the target value (see Section 11.2.2.1). The target value and standard deviation used to define the Specification Limits are those provided on the CRM certificate from the manufacturer.

#### 11.2.3.1.1 Bravada CRMs - 2012 to 2013

Three different CRMs were used in the 2012 to 2013 drilling program. There was one assay for each CRM that exceeded the three-standard deviation limit for gold. The total of three of 109 CRM assays that qualify as failures equates to a rate of 2.8%. A positive bias was evident for the CRM assays, although the magnitude was not significant. Results for all CRM gold analyses are summarized in Figure 11-6, results for the 2012 to 2013 CRM gold analyses are detailed in Table 11-7, and the details for the three 2012 to 2013 gold failures are given in Table 11-8.

**Table 11-7 Summary of CRM Results - Gold, 2012 to 2013**

CRM	Grades in ppb Au				Count	Dates Used		Failure Counts		Bias pct
	Target	Average	Maximum	Minimum		First	Last	High	Low	
MEG-Au.11.19	120	121.57	169	99	37	11/26/2012	4/15/2013	1	0	1.3
MEG-Au.12.23	290	301.07	444	250	50	11/12/2012	4/18/2013	1	0	3.8
MEG-Au.12.25	719	743.65	1226	657	22	11/26/2012	4/18/2013	1	0	3.4

**Table 11-8 List of CRM Failures – Gold, 2012 to 2013**

CRM	Hole Number	Target for CRM (ppb Au)	Fail Type	3-Std. Dev. Limit (ppb Au)	CRM Assay Value (ppb Au)
MEG-Au.11.19	WM12-078	120	High	159	169
MEG-Au.12.23	WM12-078	290	High	371	444
MEG-Au.12.25	WM12-088	719	High	815	1226

The first two failures shown in Table 11-8 occurred in the same Inspectorate batch (certificate 12-338-08141-01). There were only two CRMs included in the batch, and both exceeded their respective USLs. However, the CRM assay value for MEG=Au.11.19 was outside the three-standard deviation limit by only a very small amount, so the result is acceptable. The third recorded failure in certificate 12-338-08561-01 was significantly higher than the target value. It is possible the CRM identification was mislabeled, although no CRMs being used during the 2012 to 2013 drilling program matched the CRM assay value. Bravada’s responses to the CRM failures is not known.

On Figure 11-9 for standard MEG-Au.12.23 and subsequent CRM charts, the target value and Upper and Lower Specification Limits are based on the certified target values and standard deviations provided by the CRM manufacturer, as previously described in section 11.2.2.1. The Upper and Lower Control Limits on the charts are based on the mean plus or minus three standard deviations determined using Wind Mountain’s analytical data of the CRMs. Nearly all CRM assays are within a reasonable range of the target value, and the mean grade of the data from Inspectorate shows only a slight high bias. The failure associated with the certificate 12-338-08141-01 that is listed in Table 11-8 is shown on the chart.

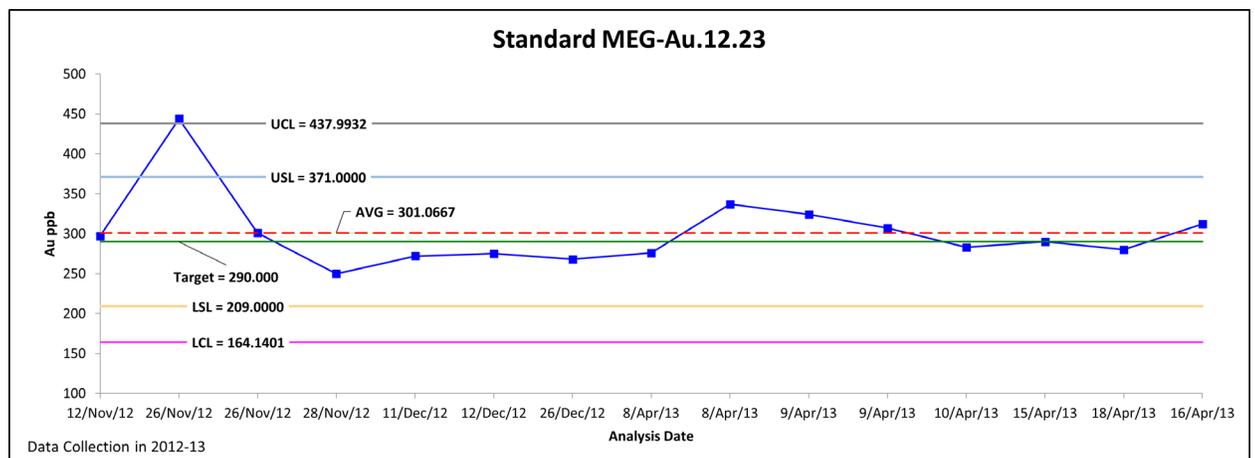


Figure 11-9. Control Chart for MEG-Au.12.23

For silver, only one CRM certificate included a mean silver grade, however, the listed value was not certified. Table 11-9 provides a summary of CRM silver assays from the 2012 to 2013 drilling program. Because there is no certified target value for silver on any MEG certificate, all CRM analyses were evaluated with respect to the LCL/UCL. Evaluation of the results in this manner does not test the accuracy of the CRM assays with respect to target values, only the consistency of the assay results; no bias is generally indicated. In this context, no values exceeded the three-standard deviation threshold.

Table 11-9. Summary of CRM Results - Silver, 2012 to 2013

CRM	Grades in ppm Ag				Count	Dates Used		Warning Counts	
	Listed	Average	Maximum	Minimum		First	Last	High	Low
MEG-Au.12.23	2.0	1.86	3.9	0.7	14	11/12/2012	4/18/2013	0	0

#### 11.2.3.1.2 Bravada CRMs - 2017

Bravada Gold used five CRMs during the 2017 drilling program. The range of target values reasonably represented the range of mineralized grades in the Wind Mountain deposit. Results for all CRM gold analyses for the 2017 are summarized in Table 11-10, and the details for the single 2017 gold failure is given in Table 11-11. Only 12 CRM assays were obtained in 2017, so the rate of failure resulting from the single low value yields a high rate of 8.3%. However, the errant value is near the target value for CRM MEG-Au.12.23, so the failed CRM assay could possibly have resulted from incorrect identification of the CRM during implementation of the QA/QC program. This conclusion is speculative, however.

Table 11-10. Summary of CRM Results - Gold, 2017

CRM	Grades in ppb Au				Count	Dates Used		Failure Counts		Bias pct
	Target	Average	Maximum	Minimum		First	Last	High	Low	
MEG S107007X	1526	1613.75	1655	1590	4	1/8/2018	1/24/2018	0	0	5.8
MEG-Au.09.01	687	731.25	834	679	4	1/8/2018	1/24/2018	0	0	6.4
MEG-Au.09.03	2100	2324	2382	2266	2	1/11/2018	1/12/2018	0	0	10.7
MEG-Au.12.23	290	305	305	305	1	1/8/2018	1/8/2018	0	0	5.2
MEG-Au.12.25	719	164	164	164	1	1/8/2018	1/8/2018	0	1	-77.2

Table 11-11. List of CRM Failures - Gold, 2017

CRM	Hole Number	Target Value (ppb Au)	Fail Type	Control Limit (ppb Au)	CRM Assay Value (ppb Au)	Comment
MEG-Au.12.25	WM17-097	719	Low	623	164	Possibly mislabelled.

Four of the five CRM certificates for gold that were used during the 2017 drilling program also listed uncertified mean silver values. Few CRMs assays for silver were run, and no values exceeded the three-standard deviation limits relative to the mean of the CRM data from Inspectorate. The silver CRM data is summarized in Table 11-12.

Table 11-12. Summary of CRM Results - Silver, 2017

CRM	Grades in ppm Ag				Count	Dates Used		Warning Counts	
	Listed	Average	Maximum	Minimum		First	Last	High	Low
MEG S107007X	7.4	7.18	7.3	7.1	4	1/8/2018	1/24/2018	0	0
MEG-Au.09.01	9.6	9.43	9.6	9.3	4	1/8/2018	1/24/2018	0	0

### 11.2.3.1.3 Bravada CRMs - 2020 to 2021

Eight CRMs were used in the 2020 to 2021 drilling program and are summarized in Table 11-13. Two of 64 CRM assays for gold exceeded the USL, yielding a modest rate of 3.1%. Table 11-14 provides details for the two errant CRM assays. The standard assay data indicates a low positive bias for CRMs without failures.

Table 11-13. Summary of CRM Results - Gold, 2020 to 2021

CRM	Grades in ppb Au				Count	Dates Used		Failure Counts		Bias pct
	Target	Average	Maximum	Minimum		First	Last	High	Low	
MEG S107002X	970	968	968	968	1	2/26/2021	2/26/2021	0	0	0
MEG S107009X	4734	4768.9	4920	4680	10	2/25/2021	8/22/2021	0	0	0.7
MEG S107010X	6405	6760	6760	6760	1	8/17/2021	8/17/2021	0	0	0.9
MEG-Au.09.01	687	1045.61	6500	642	18	2/25/2021	8/22/2021	1	0	52.2
MEG-Au.09.03	2100	2161.77	2579	2000	26	2/25/2021	8/22/2021	0	0	2.9
MEG-Au.10.05	210	238.4	329	205	5	2/25/2021	8/17/2021	1	0	13.5
MEG-Au.11.19	120	128	128	128	1	7/9/2021	7/9/2021	0	0	6.7
MEG-Au.12.23	290	302.5	311	294	2	7/7/2021	7/9/2021	0	0	4.3

Table 11-14. List of CRM Failures – Gold, 2020 to 2021

CRM	Hole Number	Target Value (ppb Au)	Fail Type	Control Limit (ppb Au)	CRM Assay Value (ppb Au)	Comment
MEG-Au.09.01	WM21-103	687	High	906	6500	silver also exceeds 3-Std. Dev. limit
MEG-Au.10.05	WM20-101	210	High	255	329	

Figure 11-10 and Figure 11-11 show the control charts for MEG-Au.09.01 and MEG-Au.10.05, respectively. The difference between the single failed CRM assay and target values for MEG-Au.09.01 is extreme. Since the CRM assay value more closely matches the target value for MEG S 107010X, it is speculated that the CRM may have been labeled incorrectly during the implementation of the QA/QC program.

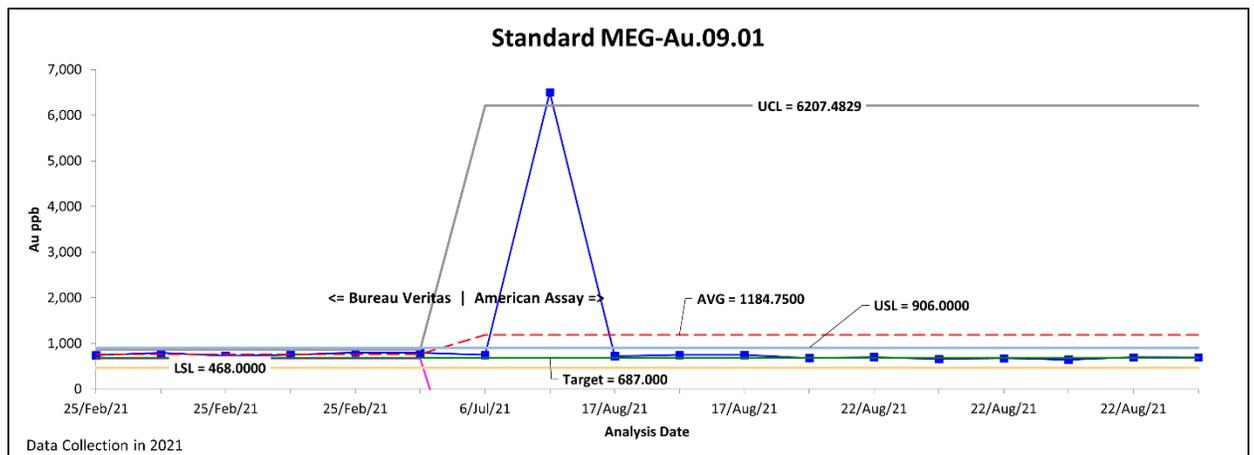


Figure 11-10. Control Chart for MEG-Au.09.01

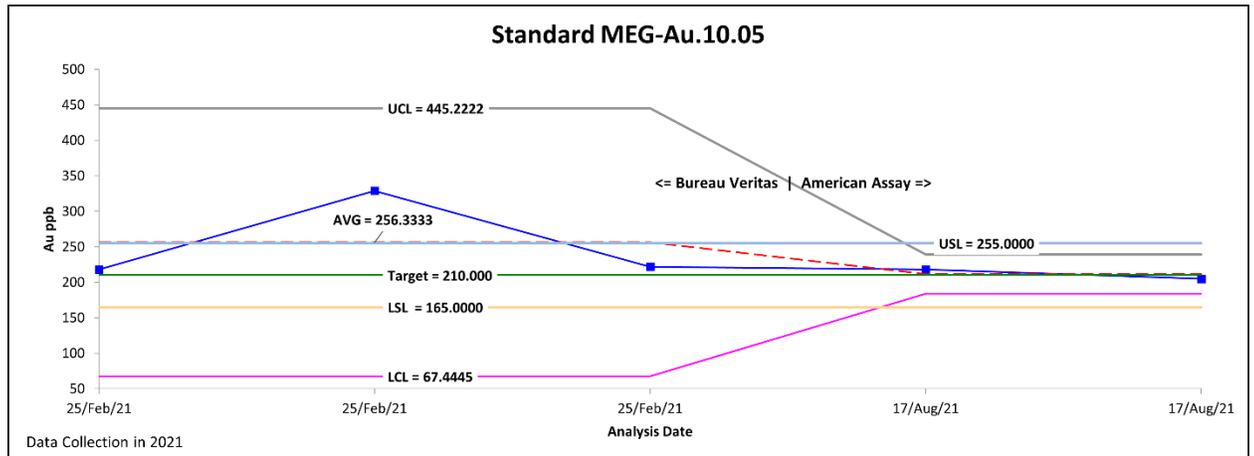


Figure 11-11. Control Chart for MEG-Au.10.05

Bravada’s drilling samples during the 2020 to 2021 program were initially sent to Bureau Veritas for a 30g FA with an AA finish through the end of February 2021. Afterwards, samples were submitted to American Assay for a 30g FA with an ICP finish. The UCL and LCL were therefore determined separately for data from each laboratory as plotted on the charts. The UCL and LCL lines are less meaningful for determining bias relative to the target values, because the standard deviations are heavily skewed by the single high failures on each chart.

Seven of the eight CRM certificates for gold that were used during the 2020 to 2021 drilling program also listed uncertified mean silver values. Table 11-15 summarizes the 2020 to 2021 CRM silver data and results. Only one assay exceeded the three-standard deviation limit based on the laboratory’s CRM assay data. However, it is notable that the gold assay from the sample failed as well (see Table 11-14) and was speculated to be incorrectly labeled as suggested by the extreme difference between target and laboratory gold assays.

Table 11-15. Summary of CRM Results - Silver, 2020 to 2022

CRM	Grades in ppm Ag				Count	Dates Used		Warning Counts	
	Listed	Average	Maximum	Minimum		First	Last	High	Low
MEG S107002X	9.2	9.9	9.9	9.9	1	2/26/2021	2/26/2021	0	0
MEG S107009X	7.4	12.66	16.1	6	10	2/25/2021	8/22/2021	0	0
MEG S107010X	18	23.4	23.4	23.4	1	8/17/2021	8/17/2021	0	0
MEG-Au.09.01	9.59	10.88	22.5	9.4	18	2/25/2021	8/22/2021	1	0
MEG-Au.09.03	17.2	18.27	19.2	17.5	26	2/25/2021	8/22/2021	0	0
MEG-Au.10.05	0.4	0.42	0.5	0.4	5	2/25/2021	8/17/2021	0	0
MEG-Au.12.23	2	1.75	1.8	1.7	2	7/7/2021	7/9/2021	0	0

### 11.2.3.2 BLANKS

Coarse blanks were used to test the preparation circuit in the Bravada 2012 to 2013, 2017 and 2020 to 2021 drilling programs. These blanks were created in-house using commercially available decorative rock,

crushed basalt, and crushed cinder blocks. Several the coarse blanks were submitted as the first sample in a given batch, which tested for cross-contamination from the laboratory's previous sample batch.

### 11.2.3.2.1 Bravada Blanks - 2012 to 2013

In the 2012 to 2013 drill program, 57 coarse blanks were submitted for both gold and silver analyses. Of the total blanks submitted, 19 were the first sample in a given batch. No gold, and only one silver blank assay exceeded the warning threshold of five-times the detection limit, which is 5ppb Au and 0.5ppm Ag. The single silver failure is summarized in Table 11-16, and the silver blank assays, excluding those at the beginning of assay batches, are plotted with assays of preceding samples in Figure 11-12.

Table 11-16 Blank Failure and Preceding Sample – Silver, 2020 to 2021

Certificate	Element	Method	Preceding Sample Number	Preceding Sample Assay (ppm Ag)	Blank Sample Number	Blank Assay (ppm Ag)	5x Detection Limit (ppm Ag)
12-338-08561-01	Ag	AA 2Acid	WM12-88 345'-350' A	1.2	WM12-88 350'-353'	2.9	2.5

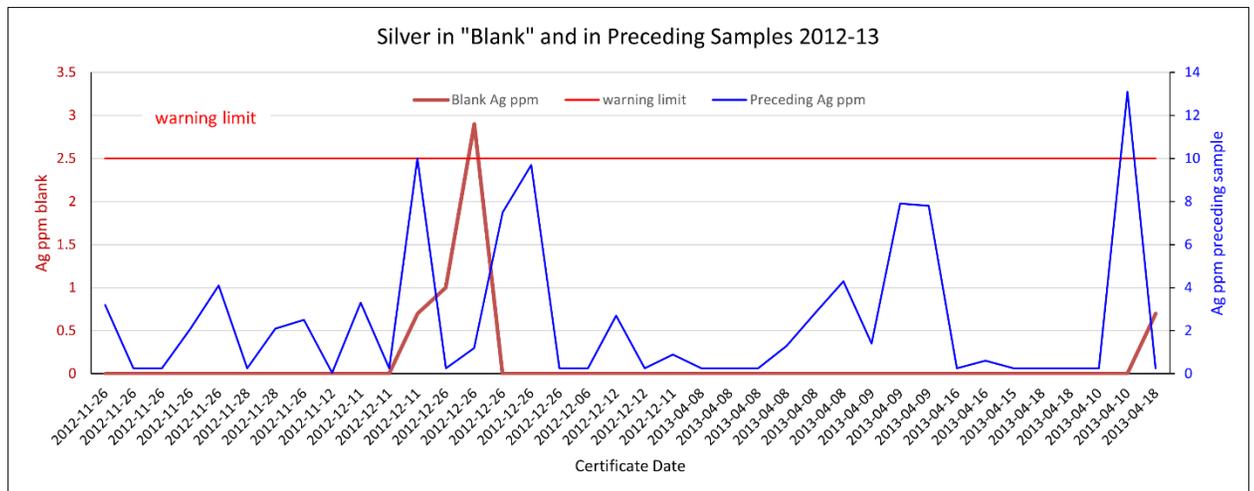


Figure 11-12. Silver in Coarse Blanks and Preceding Samples – 2012 to 2013

### 11.2.3.2.2 Bravada Blanks - 2017

A total of 12 coarse blanks were submitted for both gold and silver assays for the 2017 drilling program. Of these, two were submitted as first samples in a batch. No blank assays exceeded the warning limit of five-times the detection limit.

### 11.2.3.2.3 Bravada Blanks - 2020 to 2021

In the 2020 to 2021 drilling program, 69 coarse blanks were submitted for gold and silver analyses. Of the total blanks submitted, 21 were the first sample in a given batch. One gold blank assay exceeded the warning threshold of five-times the detection limit. The single gold failure is summarized in Table 11-17, and the gold blank assays, excluding those at the beginning of assay batches, are plotted with assays of preceding samples in Figure 11-13.

Table 11-17 Blank Failure and Preceding Sample – Gold, 2020 to 2021

Certificate	Element	Method	Preceding Sample Number	Preceding Sample Assay (ppb Au)	Blank Sample Number	Blank Assay (ppb Au)	5x Detection Limit (ppb Au)
SP0137166	Au	Fire/ICP	WM21-117 590	121	WM21-117 593	37.0	15

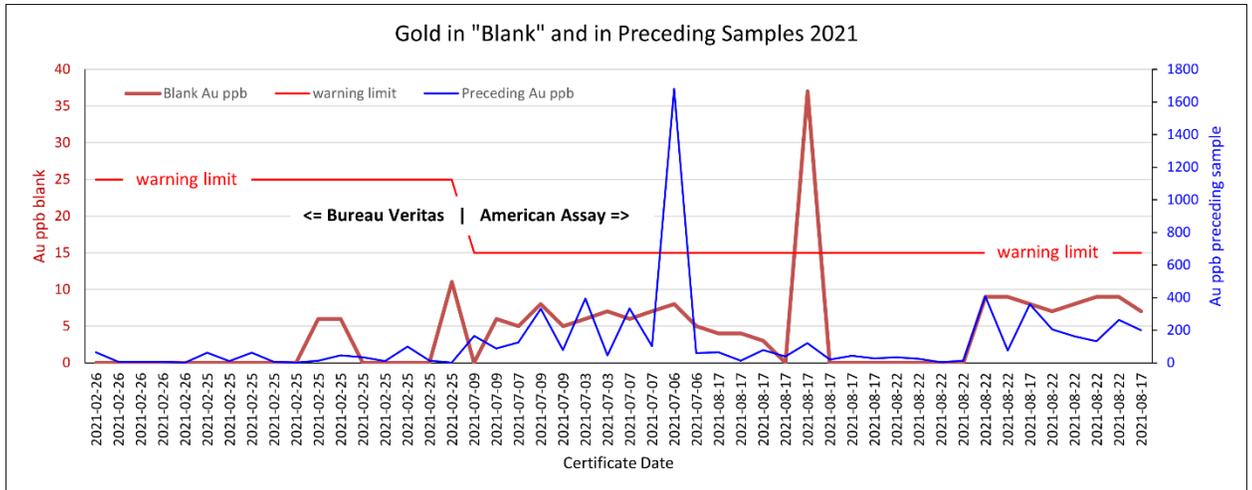


Figure 11-13. Gold in Coarse Blanks and Preceding Samples – 2020 to 2021

In Figure 11-13, the laboratory was changed around the end of February 2021, and there was a corresponding change in the warning limit due to detection limit differences between the laboratories. The Bureau Veritas analyses performed in the first part of 2021 had detection limits of 5ppb Au and 0.3ppm Ag, so the warning limits were 25ppb Au and 1.5ppm Ag. The detection limits were 3ppb Au and 0.2ppm Ag for the American Assay analyses, so warning limits were set at 15ppb Au and 1.0 ppm Ag. Ultimately, the changed warning limits did not influence the pass/fail status of any blank assays.

Bravada Gold also submitted 289 pulp blanks during the 2020 to 2021 drilling program. Three gold and three silver blank assays exceeded their respective warning limits. RESPEC also evaluated American Assays' internal pulp blank data, which was comprised of 55 and 56 blank assays for gold and silver, respectively. None of the internal pulp blank assays were above warning limits.

### 11.2.3.3 DUPLICATES

Duplicate pairs were evaluated using scatterplots showing a Reduced Major Axis ("RMA") regression, quantile/quantile plots and relative difference plots. Both relative differences and absolute values of relative difference plots were produced. Equation 2 in Section 11.2.2.3, which bases the comparison of duplicate to original samples on the mean of the pair, was used for all Bravada duplicate evaluations.

Bravada did not collect any field duplicates during the drilling campaigns from 2012 to 2022. Bravada did provide Bureau Veritas' internal laboratory QA/QC data, which included preparation and pulp duplicate assays for gold and silver from the 2017 and 2020 to 2022 drill programs. RESPEC also received American

Assay's internal preparation duplicate data from the 2020 to 2022 drilling program. Table 11-18 summarizes the comparisons for the internal duplicate pairs.

**Table 11-18 Summary of Bureau Veritas' and American Assay's Internal Laboratory QA/QC Data - Preparation and Pulp Duplicates**

Laboratory	Type	Element	Drilling Campaign	Total QA/QC Assays	Outliers Removed	RMA Regression Equation	Mean of RPD	Mean of Absolute Value of RPD
Bureau Veritas	Preparation	Au	2017 - 2021	36	0	$y = 1.0278x - 0.2864$	14.9	26.4
Bureau Veritas	Preparation	Ag	2017 - 2021	36	1	$y = 0.971x + 0.016$	-2.1	8.6
Bureau Veritas	Pulp	Au	2017 - 2021	43	0	$y = 1.026x - 0.912$	2.4	13.2
Bureau Veritas	Pulp	Ag	2017 - 2021	40	0	$y = 1.02x - 0.038$	-1.8	9.5
American Assay	Preparation	Au	2021	181	0	$y = 0.974x + 4.124$	-0.5	7
American Assay	Preparation	Ag	2021	181	0	$y = 0.996x + 0.008$	-0.3	4.9

Note: In the RMA Regression equation, x = original assay and y = duplicate assay.

Although the analytical detection limits for assays from Bureau Veritas and American Assay are slightly different, sample pairs with the original and/or duplicate assay below detection has been included in the summary data in Table 11-18. One outlier pair for silver was removed from Bureau Veritas' preparation duplicate data set. Overall bias between duplicate and original assays, as indicated by the means of the relative percent differences in sample pairs, is low at less than 2.4% for all categories, with one exception. The Bureau Veritas gold preparation duplicate pair data suggests a bias of about 15% with duplicate assays greater than originals. No explanation for the bias during preparation and assaying from coarse reject splits is known, although the sample set is relatively small.

The mean of the absolute value of the RPD in Table 11-18 is an indicator of variability between sample splits. As previously stated in Section 11.2.2.3, analyses of duplicate assay pairs provide a measure of the repeatability of assays, which is a function of the natural heterogeneity inherent in the distribution of gold and silver in a given deposit. The consistency of sampling and splitting procedures at the rig and laboratory can also factor into the results. The RPD chart example shown in Figure 11-14 for the American Assay preparation duplicates indicates variability between sample pair assays is approximately 10% above grades of about 20ppb Au.

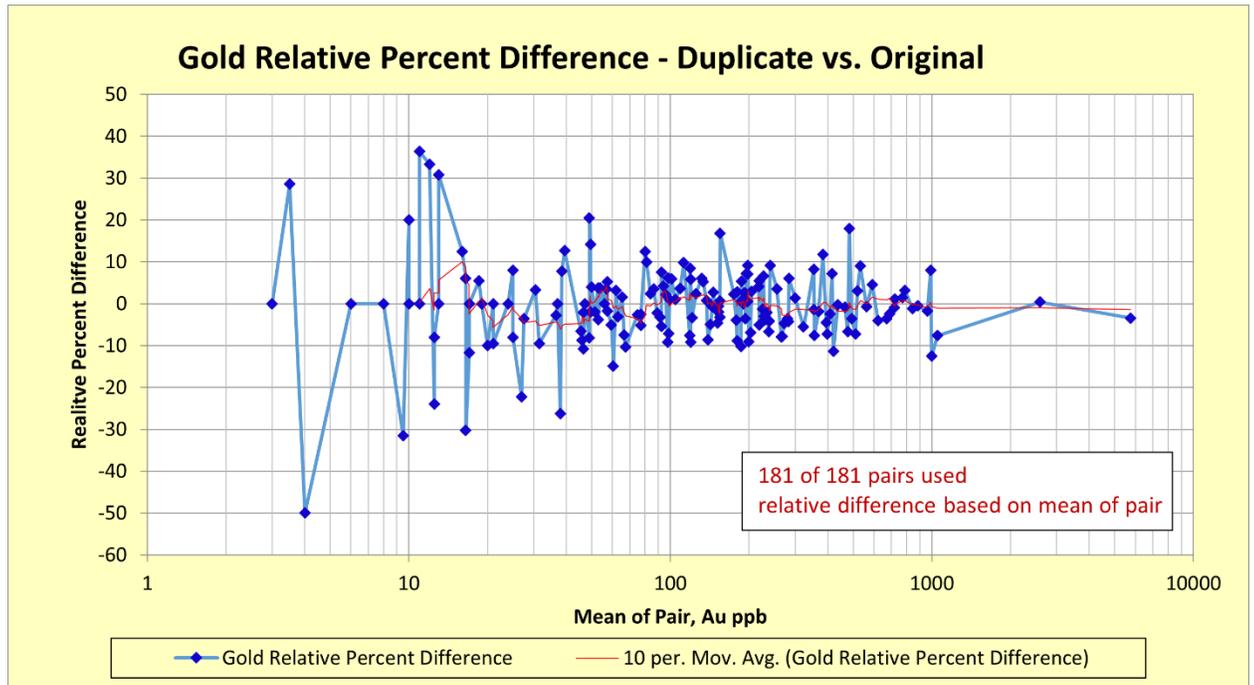


Figure 11-14. Gold Relative Percent Difference

In general, variability between sample splits decreases as the sample size is reduced from field to preparation to pulp samples. For gold sample pairs assayed at Bureau Veritas, variability in pulp duplicates is 13.2%, about half as for preparation duplicates, which is 26.4%. Variability in American Assay preparation duplicates for gold and silver is lower compared to Bureau Veritas, although the significantly larger data set for American Assay sample pairs may contribute to the trend. Overall, the relationships observed in statistics and charts of duplicate data sets is reasonable, and variability and bias are not unusually high.

### 11.3 SUMMARY STATEMENT

Information regarding the methods and procedures used for sample preparation, analyses, and sample security, as well as for quality assurance/quality control procedures and results associated with Santa Fe, Chevron and AMAX assays is very limited or not available. These data are used for metal domain modeling and resource estimation, but the lack of supporting documentation has been considered in classification of resources.

Based on the reviews of available documentation regarding sample preparation, gold and silver analytical methods, sample security and QA/QC evaluation and results, Mr. Lindholm believes the gold assays in the Wind Mountain drill-hole database are adequate for the uses described in this Technical Report. There are issues with some of the data that have been identified and described herein. For example, there are a number of CRM and blank failures associated with the silver and gold assays. However, there are no records documenting the responses by Fortune River/Bravada or the laboratories to evaluate the assays in batches containing the errant QA/QC assays. This and other relevant issues are not sufficient to preclude the use of gold or silver assays in a mineral resource estimate, but the maximum classification of the resources (Indicated) takes these issues into account.

Mr. Lindholm recommends that Bravada implement, or continue to implement the following in future QA/QC programs:

- / Continue use of coarse blanks rather than pulp blanks to monitor the potential for contamination during the laboratory's sample preparation procedures;
- / Collect field duplicates and split preparation duplicates from coarse rejects to provide a measure of gold and silver heterogeneity in the deposit, as well as to evaluate sample splitting at the drill rig and sample preparation at the laboratory. Assay both original and field duplicates at the same laboratory;
- / Continue to evaluate CRM and blank assays upon receipt, make the laboratory aware of failures, then investigate and remediate the failures as needed;
- / Every effort should be made to insert CRM pulps in a manner that is blind to the assay laboratory;
- / Send pulp splits for check assays to a referee laboratory and investigate for any significant analytical bias if it is observed.

Issues have been identified with respect to the silver assays. Gold and silver grades from the blastholes were compared to exploration drill-hole grades by Noble and Ranta (2007). Gold assays compared well, however, blasthole silver grades were 66% higher than the exploration drill-hole counterparts. The cause for the difference in silver grades is not understood. Significant bias between Fortune River/Bravada FA-AA and multi-element ICP silver assays was also found for 2007 to 2011 data (see Section 12.2). Silver contributes only a small portion of the total value to the Wind Mountain project. However, there is still an overall lower confidence and low risk associated with the silver assays with respect to resources.

## 12.0 DATA VERIFICATION

Data verification, as defined in NI 43-101, is the process of confirming that data have been generated with proper procedures, have been accurately transcribed from the original sources and are suitable to be used. Additional confirmation of the drill data's reliability is based on the authors' evaluations of the Wind Mountain project QA/QC procedures and results, as described in Section 11.2, and in general working with the data.

### 12.1 SITE VISITS

For the previous technical report by RESPEC (2014), at the time MDA, Mr. Ristorcelli (at the time a Principal Geologist for MDA) conducted a site visit on March 28, 2012 for preparation of the previous technical report by MDA (2014), now RESPEC; he reviewed the pits, outcrops, dumps, and leach pads. Mr. Dyer (at the time an Engineer for MDA) conducted a site visit on February 3, 2010, and reviewed the pits, dumps, and leach pads.

Mr. Lindholm and Mr. Dyer of RESPEC, and Jim Wickens of Woods Process Services, LLC, conducted a site visit at the Wind Mountain property on April 13, 2022. Joseph Kizis, President of Bravada, accompanied Mr. Lindholm and Mr. Dyer, and provided insight into the geology and history of the project. The geology in and around the Wind and Breeze open pits was reviewed, and the lithologic hosts, alteration and faulting associated with precious metal mineralization were observed. Various drill sites, particularly those associated with the most recent drilling programs conducted by Bravada, were inspected, and GPS collar checks were performed on some of the drill sites. An overview of the site in context with potential mine-related facilities was provided.

### 12.2 DRILL-HOLE DATA VERIFICATION - PRIOR OPERATORS AND FORTUNE RIVER/BRAVADA (1982 TO 2011)

The description of data verification for work done by prior operators (Chevron, Santa Fe and AMAX) from 1982 to 1991, and Fortune River/Bravada carried out from 2007 through 2011, is summarized from Ristorcelli and Dyer (2014), which in turn was taken partly from Noble and Ranta (2007).

Fortune River/Bravada compiled Wind Mountain drill-hole database from multiple sources. Most of the drill data generated by AMAX was obtained from Kinross and a previous landowner, after AMAX merged into Kinross in June 1998 after mining ceased at the Wind Mountain mine in 1992. Noble and Ranta (2007) based their 2007 resource work on the results of verification performed by Fortune River. The database at that time contained 32,149 assay intervals in 461 drill holes.

Bravada (the merger with Fortune River to become Bravada took place in 2011) combined information from their new drilling with the Noble and Ranta database and made further modifications. RESPEC performed an audit of Bravada's drill-hole assays, which contained data into 2011. Historical and Fortune River/Bravada drill data were audited separately, since the type and availability of supporting documentation were different for each data set. For example, Fortune River/Bravada's certificates were available in digital form, whereas historical assay certificates were generally paper documents and required manual auditing.

Some historical assay certificates were not available for auditing, and documentation of assay analytical procedures was not available. The first audit of historical data using available certificates produced greater than 1% significant errors. It was determined that most or all of the historical assay data were reported both in g Au/t and oz Au/ton, used variable conversion factors, and conversions were inconsistently rounded. As a result, Bravada re-entered the historical assay data, and RESPEC audited the data again. About 10% of the re-entered assay data were audited, and the resulting error rate was acceptable at less than 1%. All errors found were corrected.

Of the 32,218 assay intervals associated with Fortune River/Bravada's drilling, only 1,328 do not have certificates. RESPEC compiled all available assay lab certificates and performed an electronic audit against Fortune River/Bravada's drilling assays in the database, which revealed 420 (1.3%) discrepancies. Many of the discrepancies were cases where Bravada chose to use only the first of a pair of duplicate samples. For discrepancies specific to silver, Bravada determined that multi-element ICP methods were unreliable and preferentially used FA-gravimetric or FA-AA silver assays. Bravada also reran assays in cases where values were suspiciously high and selected the rerun over the original assay. RESPEC generally deferred to Bravada's choices but corrected obvious errors, in agreement with Bravada, to produce the database used for the 2012 resource estimate. This database ultimately contained 541 drill holes.

Three analytical procedures, FA with both AA and gravimetric finishes, and multi-element ICP, were used for silver by Fortune River/Bravada. Bravada preferentially used FA-gravimetric assays, but the number of these assays in the database is a very small (<0.5%). There is a clear bias between the results of the FA-AA and ICP methods with mean of FA-AA assays lower by 27%. ICP silver values represent 68% of the Fortune River/Bravada silver values from 2007 to 2011, and FA-AA silver analyses were performed for nearly all of historical and Bravada's 2012 to 2020 drill-hole samples. Mixing assays from different analytical procedures in the database with clear biases decreases the confidence in the silver assays overall.

Down-hole surveys were performed for two historical and all of the 2007 and 2008 Fortune River/Bravada drill holes. Collar coordinates for each of the drill holes were obtained from the digital database and are in Nevada State Plane West coordinate system, with NAD27 datum. Some of the drill-hole collars were surveyed, presumably by theodolite, but there is no indication as to how many and which of the drill-hole collars were surveyed. There is no supporting documentation for any collar or down-hole survey data that could be used for verification.

In addition to the drill-hole data, blasthole data were available in the AMAX archives that contained blasthole coordinates with gold and silver assays for 81,275 blastholes. RESPEC did not use the blasthole data but did compare the tons and grade from the Noble and Ranta's (2007) blasthole model completed by Mr. Noble in 2007 (Ranta and Noble, 2007) to the 2012 resource estimate. No certificates were available for the blasthole data, and there is no information regarding the sampling methods or assaying methods. Blastholes appear to have been analyzed by AMAX's in-house laboratory.

### **12.3 DRILL-HOLE DATA VERIFICATION - BRAVADA GOLD (2012 TO 2021)**

Beginning in June 2022, RESPEC conducted verification of the drill-hole data obtained since the 2012 resource estimate in Bravada's Wind Mountain database. Forty-two new holes had been drilled by Bravada in 2012, 2013, 2017, 2020 and 2021. The files provided by Bravada consisted of Excel spreadsheets

containing collar, survey, assay and geology information. RESPEC imported the data into a SQL database (GeoSequel) and used the built-in data validation routines to perform the following logic checks on the data:

- / Collars: identify collars with missing depths, collars with missing coordinates, switched or duplicated coordinates, drill holes without assay intervals or intervals without assays, drill holes without collar survey information, and drill holes without geology;
- / Surveys: identify survey depths greater than total depth, survey points missing azimuth or dip values, surveys where azimuth readings above or below 0° to 360°, surveys with positive or flat dip angles (< ~ -45°) or outside -90° to +90°; consecutive readings with excessive rates of change; and
- / Assays: identify illogical or incorrect 'from' and 'to' intervals; excessively large or small assay or geologic intervals, assay or geologic intervals that are greater than collar total depth, gaps and overlaps in assay or geologic intervals.

Errors found during these tests were iteratively corrected in the database by Bravada staff, or by RESPEC with input from Bravada.

Once all logic errors were found and corrected, the data-entry of assays in Bravada's database from the 42 newest drill-holes were evaluated against original certificates. RESPEC created an independent assay database from digital certificates downloaded directly from the respective laboratories. Of the 45 certificates imported into the GeoSequel system, 17 were downloaded directly from the American Assay website and 28 were downloaded directly from Bureau Veritas (20 Inspectorate certificates, then eight Bureau Veritas after name change). A digital audit was performed on the 5,411 new gold and silver assays, which represented all new assay data obtained since the 2012 resource estimate. All discrepancies found were addressed by Bravada personnel in early July of 2022, corrections were made, and the assay database used for modeling and estimation in 2022 was finalized.

No certificates were available for verification of new collar coordinates or down-hole surveys. However, some collar locations were verified by GPS measurements during the site visit in April of 2022 (see Section 12.4).

## 12.4 INDEPENDENT VERIFICATION OF DRILL-HOLE COLLAR LOCATIONS

During the 2022 Wind Mountain site visit, RESPEC took GPS measurements on four drill pads to spot-check coordinates in Bravada's collar tables (Table 12-1). Field measurements for eastings and northings were taken in UTM NAD27 meters and were converted to the Nevada State Plane West coordinate system, with NAD27 datum in US Survey feet for comparison to the collar coordinates in the database, as shown in Table 12-1. The elevation was measured directly in feet. All drill holes were identified by hole numbers stamped on metal tags that were attached to stakes embedded in concrete plugs.

Table 12-1 RESPEC Verification GPS Checks of Wind Mountain Project Drill Collars

Drill Hole	RESPEC GPS Site (feet)			Collar in Database (feet)			Difference - RESPEC versus Database (feet)		
	Easting	Northing	Elevation	Easting	Northing	Elevation	Easting	Northing	Elevation
WM21-103	274,473	2,070,401	4,385	274,471.23	2,070,389.78	4,380.37	-1.4	-11.6	-4.6
WM21-107	274,686	2,070,211	4,469	274,691.00	2,070,199.75	4,470.16	5.0	-11.5	1.2
WM21-110	274,780	2,070,272	4,489	274,787.36	2,070,260.16	4,489.52	7.3	-11.5	0.5
WM21-115	273,748	2,069,097	4,210	273,752.96	2,069,085.10	4,222.92	5.0	-11.5	12.9

Note: Coordinates in Nevada State Plane West with NAD27 datum in US Survey feet.

A Garmin eTrex® 22x non-differential GPS was used to measure coordinates at the drill collars. The Garmin website does not provide accuracy specifications but does indicate that the model accesses both GPS and GLONASS satellite systems. In general, GPS units of the type used are accurate to within three to five meters (10 to 16 ft) with Differential GPS corrections, and within 15 meters (49 ft) without DGPS. Also, elevation readings are typically much less accurate than eastings and northings, particularly in steep terrain. In fact, while measurements were taken at the Wind Mountain project sites, the elevations were observed to fluctuate continuously over a 10-to-15-foot range.

All GPS eastings and northings, and three of four elevations, were within 6.4ft of their respective coordinates in Bravada’s drill-hole database. One elevation differed by about 13ft, however as noted above, GPS elevation readings tend to be much less accurate, and the reading was still within the accuracy range for the GPS unit. Therefore, all comparisons were within the expected range of GPS versus surveyed coordinates, and generally confirmed the hole locations as given in Bravada’s database.

## 12.5 SUMMARY STATEMENT

The drill-hole database that resulted from the data verification work done on Bravada’s database is generally acceptable for use in metal domain modeling and resource estimation. About 10% of the historical gold and silver assay data were audited, and the resulting error rate was acceptable at significantly less than 1%. All errors found were corrected. All Fortune River/Bravada assays were compared to digital copies of certificates obtained directly from their respective labs, and, except for discrepancies that were explained by chosen assay methods or reruns, no errors were found. GPS checks of collar coordinates during the site visit confirmed the general location of Bravada’s recent drilling, and observations confirmed the existence of drilling during multiple campaigns throughout the site.

Several risks were identified during RESPEC’s data verification work. First, there is effectively no documentation of historical quality control work, and there are no supporting assay certificates for a portion of the historical drilling. There is also a significant bias between Fortune River FA-AA and multi-element ICP silver assays with mean of FA-AA assays lower by 27%. ICP silver values represent 68% of the Fortune River/Bravada silver values from 2007 to 2011, and FA-AA silver analyses were performed for nearly all of historical and Bravada’s 2012 to 2020 drill-hole samples. Mixing assays from different analytical procedures in the database with clear biases decreases the confidence in the silver assays overall. However, silver represents a small portion of the total value of the Wind Mountain, so the associated risk is low. The lack of



supporting documentation for historical assays and the bias in silver assays has been considered in resource classification of estimated resources, primarily by classifying no material as Measured in the model.

## 13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

Several historic metallurgical reports are available for the Wind Mountain gold-silver project, but the most compelling indication for gold and silver recovery is from historic production that occurred between 1989 and 1999. Fortune River and Bravada have conducted subsequent metallurgical testing.

A comprehensive review of this work and additional testing by a qualified metallurgist are recommended for the next level of study.

### 13.1 HISTORIC METALLURGICAL TESTING AND REPORTS

RESPEC obtained five reports that described studies and tests that occurred prior to and during historic production. The following information is presented as a summary of the historic metallurgical work that has been completed. RESPEC believes that these reports are reasonable evidence of the amenability of the deposit to leaching for this level of study. Note that use of the term "ore" in these reports is in the metallurgical sense and is not a reflection of the economics of the mineralization.

#### 13.1.1 BOTTLE-AGITATION CYANIDE LEACH TESTS – WESTERN TESTING LABORATORIES – 1985

In 1985, Western Testing Laboratories produced a "Report on Bottle-Agitation Cyanide Leach Tests" for Santa Fe Mining, Inc., describing bottle-agitation tests conducted on two samples taken from drill sample rejects. The test portions from the rejects were ground to minus 80-mesh and split for head assay and 72-hour bottle roll tests. The head assays for the two samples and resulting extractions for the bottle tests are shown on Table 13-1.

Table 13-1. Results of Bottle Roll Tests by Western Testing Laboratories  
(From Western Testing Laboratories, 1985)

Sample	Au oz/ton	Ag oz/ton	Au Extraction	Ag Extraction
Group 1	0.034	0.78	88.6%	58.2%
Group 2	0.038	0.69	89.7%	51.4%

Reagent consumption was reported as 4.0 pounds of lime per ton of ore and 1.3 pounds of sodium cyanide per ton of ore.

The report recommended:

*"... Since grade of the ore is such that only heap leaching is a viable production method, a series of column-percolation cyanide leach tests should be performed before a pilot heap is attempted. Such a series of tests would provide data on degree of crushing required, percolation characteristics, and recoveries that would more nearly approach those attained in a pilot heap leach."*

#### 13.1.2 BOTTLE-AGITATION CYANIDE LEACH TESTS – HEINEN-LINDSTROM CONSULTANTS – 1986

In 1986, Heinen-Lindstrom Consultants produced a report on "Preliminary Cyanidation of San Emidio Ore Samples" for Pegasus Gold Inc., who was bidding for the property; San Emidio refers to Wind Mountain

samples. This report was based on two samples (B2028 and A-8), which were subjected to 72-hour leach bottle roll tests. Table 13-2 shows sample characteristics and extraction results as reported.

**Table 13-2 Results of Bottle Roll Tests by Heinen-Lindstrom Consulting**  
(From Heinen-Lindstrom Consultants, 1986)

Metallurgical Results	Sample			
	B2028		A-8	
	Au Recovery	Ag Recovery	Au Recovery	Ag Recovery
2 hours	35.50%	2.80%	41.50%	6.30%
6 hours	55.70%	3.70%	52.40%	9.10%
24 hours	65.20%	6.10%	55.70%	13.00%
48 hours	80.70%	9.00%	59.00%	16.00%
72 hours	79.70%	10.60%	62.30%	17.70%
Extracted, oz/T ore	0.024	0.05	0.013	0.12
Tail Assay, oz/T ore	0.006	0.44	0.008	0.55
Calculated Head, oz/T ore	0.03	0.49	0.021	0.67
Assay Head, oz/T ore	0.023	0.26	0.024	0.62
Cyanide Consumption, lb/ton ore	0.1		0.3	
Lime Added, lb/ton ore	3.6		2	
Final Solution pH	10		9.7	

The discrepancies between assay head grades and calculated head grades were not discussed in the report. An additional discrepancy in the recovery between the 48 hour and 72 hour interval shows that the gold recovery for sample B2028 actually went down. It is uncertain if this discrepancy is due to ore characteristics or laboratory error.

Conclusions presented in the report are as follows:

- / San Emidio samples are fairly amenable to agitated cyanidation at a nominal 3/8 inch feed size.
- / Leaching rates are rapid for both samples.
- / Cyanide consumptions were low.
- / Lime requirements were low."

### 13.1.3 COARSE GOLD STUDY – AMAX MINERALS & ENERGY – 1987

In 1987 AMAX conducted an in-house coarse gold study on Wind Mountain mineralization (referred to as the "Pyramid Lake prospect") by J. D. Wood (Wood, 1987). The study was initiated due to intercepts with traces of visible gold in rotary (assumed to be RC) drill cuttings. Cyanide leaching was performed on three samples.

Wood summarized the study and concluded:

*"Small flecks of visible gold observed in DH-12 and DH-13 drill cuttings were the first indication of free gold at the Pyramid Lake prospect. Sieve fraction analysis indicated the gold values are consistently 9.3% higher in +20 mesh fractions and 20.6% higher in the -100 mesh fractions than in the intermediate fractions. This probably indicates gold is closely associated with, and contained along fractures of very hard silicified rhyolite and is liberated by drilling and crushing enabling small quantities of free gold to concentrate in the fine fractions.*

*Cyanide leaching of 3 samples resulted in an average gold recovery of 100 percent based on AMAX composite head assays ranging from 50 to 135 percent. Recoveries over 100 percent must reflect coarse gold not detected by fire-assay methods. The only other explanation is analytical error which does not seem likely. There appears to be 32 percent coarse gold in these samples resulting in total gold contents 47 percent higher than initial assays. The actual size of the coarse gold particles has not been determined. Two observed are about 1/2g or less in weight. Similarly the distribution or extent of the coarse gold is not known. Samples tested exceed 0.01oz Au/T so it may be expected to find coarse gold in rocks exceeding this grade."*

#### **13.1.4 CYANIDE TESTS – KAPPES, CASSIDAY & ASSOCIATES – 1988**

The most extensive metallurgical testing report available was prepared by Kappes, Cassiday & Associates ("KCA") for AMAX in 1988. The following is RESPEC's summary of this report:

A full range of testing was done on nine samples, including screen and head analyses, cyanide centrifuge tube tests, cyanide bottle roll tests, and cyanide column leach tests.

Nine core samples were provided to KCA for testwork. The core was crushed into two groups of samples: minus 5/8in and minus 1 1/2in. In addition, eight chip samples from three rotary drill holes were provided for testing. Head grades for the core samples ranged from 0.006 to 0.033oz Au/ton, and the chip sample head grades ranged from 0.011 to 0.066oz Au/ton. Centrifuge tube tests were performed on pulverized portions of all core sample screen fractions. The tests indicated that the total cyanide soluble gold was greater than 80% in all fractions tested.

Agitated bottle roll tests were conducted on the core samples and on splits of the chip samples. The core bottle roll tests were conducted on pulverized core as well as the 5/8in and 1 1/2in samples. Gold extractions on core samples ranged from 62.5% to 88.6% and averaged 80.2%. Cyanide consumption ranged from 0.3 to 1.1 pound sodium cyanide per ton of ore, and lime consumption ranged from 0.8 to 1.6 pounds per ton of ore.

Column tests were performed on the nine samples of minus 5/8 inch and nine samples of minus 1 1/2 inch core. The column tests used 5ft to 6ft columns, which were 6in diameter for the 5/8 minus material and 8in diameter for the 1 1/2 minus material. The column tests were run from 30 to 39 days. Extractions for the 5/8in material ranged from 42.7% to 87.5%, with a weighted average of 59.4%. Extractions for the 1 1/2in material ranged from 33.3% to 80.0%, with an average of 54.3%.

KCA suggested that the actual recoveries for full-scale leach pads would be 3% less than the results or 56% and 51% for 5/8in and 1 1/2in material, respectively.

### 13.1.5 COLUMN LEACH TESTS ON A BULK ORE COMPOSITE – MCCLELLAND LABORATORIES, INC. – 1990

A 5,500-pound bulk composite of Wind Mountain ores prepared by Wind Mountain mining personnel was tested by McClelland in 1990. (The sample was from mining activities, although the location of the sample was not described in the report.) Column leach tests were conducted using various crush sizes, including: 80% minus 3/4in, 80% minus 1in, and 80% minus 2in. Duplicate tests were conducted for each of the crush sizes, and a single test was performed on run-of-mine ore, which was 16.5% plus 4in. Average grade for the bulk sample was 0.019oz Au/ton and 0.42oz Ag/ton.

These columns had 50-day gold extractions of 67%, 66%, 62%, and 58% for the 3/4in, 1in, 2in, and run-of-mine ("ROM") sizes, respectively. Average silver extraction of 11%, 14%, 13%, 17% was determined for the 3/4in, 1in, 2in, and run-of-mine columns, respectively.

McClelland made the following conclusions:

- / "The bulk ore composite was amenable to heap leaching treatment at all four feed sizes evaluated.
- / CGold extraction rates were fairly rapid.
- / Cyanide consumptions were low and should be substantially lower in commercial production.
- / Lime requirements were low.
- / Overall metallurgical results from the column tests and tail screen analysis results from the ROM leached residue, indicate that the metallurgically optimum feed size for the Wind Mountain bulk ore is 1 inch."

McClelland recommended that *"an economic trade off study between leaching ROM and crushed 1 inch feed be conducted to determine whether or not the increased gold recovery obtained from the finer feed would warrant the crushing costs"*.

## 13.2 METAL RECOVERY FROM HISTORICAL PRODUCTION

During the 1990s, AMAX demonstrated favorable leaching characteristics of the oxide mineralization at Wind Mountain, obtaining 69% gold recovery from a combination of crushed and run-of-mine ore at grades. The silver recovery percentage is not known, but silver was a significant byproduct. Gold production from the AMAX operation, as shown in Table 13-3, indicates a gold recovery of 67% during active leaching and an overall recovery of 69% after rinsing of leach pads.

Of the material placed on leach pads, 39% was crushed and 61% was run-of-mine.

Table 13-3. Annual Gold Recovery Wind Mountain Mine, 1989-1999  
(Modified from Noble and Ranta, 2007)

Year	Au Ounces to Pad	Recovered Gold Ounces		Total Recovery	Comments
		For Year	Cumulative		
1989	78,059	30,903	30,903	40%	Mining & Leaching
1990	147,648	81,733	112,636	50%	Mining & Leaching
1991	191,118	91,063	203,699	49%	Mining & Leaching
1992	16,369	54,689	258,388	60%	Mining & Leaching
1993		19,296	277,684	64%	Leaching
1994		10,513	288,197	67%	Leaching
1995		5,312	293,509	68%	Rinsing
1996		4,205	297,714	69%	Rinsing
1997		964	298,678	69%	Rinsing
1998		-	298,678	69%	Heavy Precipitation
1999		581	299,259	69%	Passive Rinsing
Total	433,194	299,259			

### 13.3 METALLURGICAL TESTS BY FORTUNE RIVER

#### 13.3.1 COLUMN LEACH TESTING OF DUMP SAMPLES – 2008

Fortune River commissioned McClelland to conduct column testing of two bulk dump samples from dumps of the Wind and Breeze pits in 2008. The samples weighed approximately 22 tons each and were split at the lab to 2.5 tons and dumped into 30in. columns. The head grade of the South dump, from the Wind pit, was 0.445ppm Au and 15.06ppm Ag. Leaching of this material for 134 days recovered 60.7% of the Au and 14.6% of the Ag. The dump sample from the Breeze pit had a head grade of 0.445ppm Au and 10.27ppm Ag. High clay content of the Breeze dump sample apparently did not allow the leach solutions to pass through the column. A prominent clay layer was encountered within the trench from which the Breeze sample was derived, and no attempt was made to segregate the clay layer from the sample in order to indicate the probable results of a worst case scenario.

#### 13.3.2 GOLD CYANIDE EXTRACTION TESTING

***Drill Samples*** In July 2008, Fortune River conducted cold cyanide extraction tests for gold and silver on pulps from intervals of two drill holes that encountered the Deep Min pod of gold and silver mineralization west of the Wind pit. The objective of this testing was preliminary determination of the amenability of this mineralization to direct cyanidation. Samples consisted of 500g pulps derived from individual 5ft drill samples from a continuous interval between 615ft and 950ft in drill hole WM08018 and from a continuous interval in drill hole WM08019 from 605ft to 1,050ft.

Inspectorate conducted the first round of testing on drill hole WM08019 only, which was selected because it was judged to contain the least oxidized representation of mineralization from Deep Min. Thirty grams of the pulp were subjected to cyanide extraction for one hour. The average extraction of gold from the entire

interval (605ft to 1,050ft) was 18%. Extraction of gold from the less oxidized portion from 605ft to 900ft averaged only 10%, while a deeper more oxidized portion from 900ft to 1,005ft averaged 42%; the higher extraction and stronger oxidation are probably due to the proximity of this lower interval to the strongly fractured Wind Mountain fault zone.

ALS conducted a second round of tests on the less oxidized interval of WM08019 (from 605ft to 900ft as described above) and on an interval in drill hole WM08018 from 615ft to 900ft. ALS utilized a similar (one hour) procedure as Inspectorate and also analyzed Ag by AA from the same solution as the gold. ALS obtained an extraction of gold of 39% from WM08018 and 15% from WM08019. ALS repeated the procedure on another 30g split and allowed the extraction to continue for 24 hours; they obtained extraction of 41% of the gold in WM08018 and 10% from WM08019. Extraction of silver from WM08018 averaged 39% and 41%, respectively, for the 1 hour and 24 hour tests and 31% and 32%, respectively, for WM08019.

Interestingly, the extraction of gold after 24 hours was actually less than that from the one hour test on the weakly oxidized interval from WM08019. Fortune River discussed these data with the chief geochemist with ALS, who suggested that the decreased extraction from the longer test was probably due to the presence of cyanide-consuming species in the sample, probably sulfur. No cyanide is added during the tests, and if the cyanide concentration drops below a certain level, depending on PH conditions, gold may drop out of solution. The longer extraction time of the 24 hour tests may have allowed the cyanide consumer to decrease the cyanide concentrations below a critical level. The interval tested in WM08019 was only very weakly oxidized, and trace amounts of iron sulfide were present throughout the interval.

Fortune River had similar analyses done on other samples from drilling in other parts of the deposit(s). These data show that there is variability in metallurgical recoveries spatially, something that requires additional testwork and review.

### 13.3.3 SURFACE DUMP SAMPLES

As discussed in section 9.2, in July 2008, Fortune River collected 108 samples from the surface of the three largest dumps. Inspectorate analyzed the samples for gold by fire assay followed by AA and also conducted ICP multi-element analysis. One hour, cold cyanide extraction tests for gold and silver were also conducted by Inspectorate on 30g pulp samples that were derived from surface dump samples. Average extraction by cold cyanide was 98% of the gold and 104% of the silver.

### 13.3.4 BULK DUMP SAMPLING

As discussed in section 9.2, in June 2008, two large approximately 20 to 25-ton samples were taken from trenches dug in two of the waste dumps at Wind Mountain including the Breeze dump near the Breeze pit (approximately 350ft long and 20 to 25ft deep sample), and the main dump near the Wind pit (Main Pit; approximately 200ft long at 20 to 25ft deep sample). Both trenches were approximately 4 to 6ft wide.

Material from the trenches was quartered to obtain approximately one 2.5-ton sample from each trench. This material was shipped to McClelland for size fraction analysis and column leach testing. The Breeze pit column reportedly blinded off due to some green-gray clays, which can reportedly be seen in the high-wall of the Breeze pit. It will be important to segregate this material during mining.

The other column test resulted in 61% gold and 15% silver recoveries.

Head screen analysis results also showed higher-grade assays in the minus 6in material indicating that upgrading of material may be possible with screening.

### 13.3.5 MCCLELLAND REPORT ON HEAP LEACH CYANIDATION TESTING (MEDINA, 2012)

In March 2011, eight samples were sent to McClelland for size-fraction analysis, abrasion-index testing, size-reduction testing, and subsequent metallurgical testing. Three of these samples were from the Wind Mountain heap leach pads (samples #1 through #3), two samples were from waste dumps (samples #4 and #8), and the three remaining samples were from exposed pit areas (samples #5 through #7).

Each sample, weighing approximately 2,800lb, was blended and then quartered to produce sub-samples as follows: 330lb for size-fraction analysis, 45lb for abrasion-index testing, and 45lb for metallurgical testing. All testing was done at McClelland with the exception of the abrasion tests, which were done by Phillips Enterprises, LLC.

Size-fraction tests were run on each of the eight samples to determine the distribution of sizes and metal in those sample sizes. The results from the size-fraction tests are shown in Table 13-4. through Table 13-11.

The head grade of sample 8 from the waste dump was 0.003oz Au/ton and 0.23oz Ag/ton. As the gold grade was well below cutoff grade, no further metallurgical testing was done on this sample.

Bottle roll tests were conducted on heap leach samples 1 through 3, waste dump sample 4, South Wind pit (southern portion of the Wind pit) sample 5, North Wind pit (northern portion of the Wind pit) sample 6, and Breeze pit sample 7. Column tests were done on heap leach sample 1, North Wind pit sample 6, and Breeze pit sample 7. Bottle roll and column test sample results are summarized in Table 13-12.. Samples were crushed to obtain 80% minus ½in and 80% minus ¼in samples for column testing. Bottle roll samples were crushed to 80% minus ½in and 80% minus 10 mesh.

Details of the column tests are shown in Table 13-13. and graphically in Figure 13-1. Column-test metallurgical balances are shown in Table 13-14.

The McClelland report also provided the physical characteristics of the samples received. These are shown in Table 13-15.

**Table 13-4. Head Screen Analysis Results - Heap Sample #1**  
**As Received Feed Size**  
 (From Medina, 2012)

Size	Weight,	Cum. Wt.,	Assay,		Distribution			
			oz/ton		Au		Ag	
Fraction	%	%	Au	Ag	%	Cum. %	%	Cum. %
+4"	3.6	3.6	0.0117	0.46	5.8	5.8	5.2	5.2
-4+2"	17	20.6	0.0069	0.29	16	21.8	15.4	20.6
-2+1"	26.3	46.9	0.0083	0.35	29.8	51.6	28.7	49.3
-1+3/4"	8	54.9	0.0081	0.37	8.8	60.4	9.2	58.5
-3/4+1/2"	10.8	65.7	0.0077	0.4	11.4	71.8	13.5	72
-1/2+1/4"	12.3	78	0.0065	0.32	10.9	82.7	12.3	84.3
-1/4"+10M	11.2	89.2	0.0061	0.28	9.3	92	9.8	94.1
-10+20M	2.9	92.1	0.0057	0.25	2.3	94.3	2.3	96.4
-20+35M	1.9	94	0.0052	0.22	1.3	95.6	1.3	97.7
-35+65M	1.2	95.2	0.004	0.2	0.7	96.3	0.7	98.4
-65+100M	0.5	95.7	0.0032	0.16	0.2	96.5	0.3	98.7
-100M	4.3	100	0.006	0.1	3.5	100	1.3	100
Composite	100		0.0073	0.32	100		100	

**Table 13-5. Head Screen Analysis Results - Heap Sample #2**  
**As Received Feed Size**  
 (From Medina, 2012)

Size	Weight,	Cum. Wt.,	Assay		Distribution			
			oz/ton		Au		Ag	
Fraction	%	%	Au	Ag	%	Cum. %	%	Cum. %
+4"	18.5	18.5	0.005	0.64	20.7	20.7	16.5	16.5
-4+2"	26	44.5	0.0062	1	36.1	56.8	36.2	52.7
-2+1"	19.2	63.7	0.0042	0.72	18.1	74.9	19.3	72
-1+3/4"	5.9	69.6	0.0041	0.74	5.4	80.3	6.1	78.1
-3/4+1/2"	7	76.6	0.0037	0.64	5.8	86.1	6.2	84.3
-1/2+1/4"	7.4	84	0.0021	0.6	3.5	89.6	6.2	90.5
-1/4"+10M	5.9	89.9	0.0026	0.55	3.4	93	4.5	95
-10+20M	1.8	91.7	0.0028	0.54	1.1	94.1	1.4	96.4
-20+35M	1.3	93	0.0024	0.56	0.7	94.8	1	97.4
-35+65M	1.1	94.1	0.0021	0.41	0.5	95.3	0.6	98
-65+100M	0.7	94.8	0.0011	0.29	0.2	95.5	0.3	98.3
-100M	5.2	100	0.0039	0.24	4.5	100	1.7	100
Composite	100		0.0045	0.72	100		100	

**Table 13-6. Head Screen Analysis Results – Heap Sample #3**  
**As Received Feed Size**  
 (From Medina, 2012)

Size	Weight,	Cum. Wt.,	Assay,		Distribution			
			oz/ton		Au		Ag	
Fraction	%	%	Au	Ag	%	Cum. %	%	Cum. %
+4"	33.7	33.7	0.0065	0.17	37.6	37.6	17.1	17.1
-4+2"	22.9	56.6	0.0062	0.7	24.4	62	47.9	65
-2+1"	12.5	69.1	0.006	0.29	12.9	74.9	10.8	75.8
-1+3/4"	4.1	73.2	0.006	0.34	4.2	79.1	4.2	80
-3/4+1/2"	5.6	78.8	0.0051	0.36	4.9	84	6	86
-1/2+1/4"	6.1	84.9	0.0041	0.29	4.3	88.3	5.3	91.3
-1/4"+10M	5.7	90.6	0.0026	0.24	2.5	90.8	4.1	95.4
-10+20M	1.9	92.5	0.0022	0.2	0.7	91.5	1.1	96.5
-20+35M	1.4	93.9	0.0017	0.15	0.4	91.9	0.6	97.1
-35+65M	1	94.9	0.0016	0.14	0.3	92.2	0.4	97.5
-65+100M	0.4	95.3	0.0017	0.12	0.1	92.3	0.2	97.7
-100M	4.7	100	0.0095	0.16	7.7	100	2.3	100
Composite	100		0.0058	0.33	100		100	

**Table 13-7. Head Screen Analysis Results - Waste Dump Sample #4**  
**As Received Feed Size**  
 (From Medina, 2012)

Size	Weight,	Cum. Wt.,	Assay		Distribution			
			oz/ton		Au		Ag	
Fraction	%	%	Au	Ag	%	Cum. %	%	Cum. %
+4"	14.8	14.8	0.0083	0.34	14	14	15.5	15.5
-4+2"	16.3	31.1	0.0065	0.34	12.1	26.1	17.1	32.6
-2+1"	16.8	47.9	0.0108	0.32	20.6	46.7	16.6	49.2
-1+3/4"	4.9	52.8	0.0142	0.39	7.9	54.6	5.9	55.1
-3/4+1/2"	6.8	59.6	0.0112	0.48	8.7	63.3	10.1	65.2
-1/2+1/4"	8.7	68.3	0.0083	0.36	8.2	71.5	9.6	74.8
-1/4"+10M	10.7	79	0.0068	0.32	8.3	79.8	10.5	85.3
-10+20M	3.8	82.8	0.006	0.28	2.6	82.4	3.3	88.6
-20+35M	2.9	85.7	0.0048	0.38	1.6	84	3.4	92
-35+65M	2.5	88.2	0.0041	0.2	1.2	85.2	1.5	93.5
-65+100M	1.1	89.3	0.0034	0.18	0.4	85.6	0.6	94.1
-100M	10.7	100	0.0118	0.18	14.4	100	5.9	100
Composite	100		0.0088	0.32	100		100	

**Table 13-8. Head Screen Analysis Results - Waste Dump Sample #8**  
As Received Feed Size  
(From Medina, 2012)

Size	Weight, %	Cum. Wt., %	Assay		Distribution			
			oz/ton		Au		Ag	
Fraction			Au	Ag	%	Cum. %	%	Cum. %
+4"	10.8	10.8	0.0011	0.25	3.5	3.5	11.8	11.8
-4+2"	14.4	25.2	0.0026	0.21	11.2	14.7	13.3	25.1
-2+1"	12.9	38.1	0.003	0.22	11.6	26.3	12.4	37.5
-1+3/4"	5.7	43.8	0.0029	0.25	4.9	31.2	6.2	43.7
-3/4+1/2"	8.2	52	0.0028	0.22	6.8	38	7.9	51.6
-1/2+1/4"	13.1	65.1	0.0026	0.23	10.2	48.2	13.2	64.8
-1/4"+10M	13.9	79	0.0029	0.22	12	60.2	13.4	78.2
-10+20M	4.5	83.5	0.0026	0.23	3.5	63.7	4.5	82.7
-20+35M	3	86.5	0.0033	0.45	3	66.7	5.9	88.6
-35+65M	1.7	88.2	0.0043	0.33	2.2	68.9	2.5	91.1
-65+100M	0.6	88.8	0.0054	0.38	1	69.9	1	92.1
-100M	11.2	100	0.009	0.16	30.1	100	7.9	100
Composite	100		0.0033	0.23	100		100	

**Table 13-9. Head Screen Analysis Results South Wind Pit Sample #5**  
As Received Feed Size  
(From Medina, 2012)

Size	Weight, %	Cum. Wt., %	Assay		Distribution			
			oz/ton		Au		Ag	
Fraction			Au	Ag	%	Cum. %	%	Cum. %
+4"	16.1	16.1	0.0168	1.2	17.6	17.6	27.9	27.9
-4+2"	18.1	34.2	0.0164	0.81	19.3	36.9	21.1	49
-2+1"	15.2	49.4	0.0166	0.74	16.4	53.3	16.2	65.2
-1+3/4"	6	55.4	0.0161	0.65	6.3	59.6	5.6	70.8
-3/4+1/2"	7.6	63	0.0168	0.66	8.3	67.9	7.2	78
-1/2+1/4"	11.1	74.1	0.0134	0.55	9.7	77.6	8.8	86.8
-1/4"+10M	12.9	87	0.0125	0.43	10.5	88.1	8	94.8
-10+20M	4.3	91.3	0.0111	0.35	3.1	91.2	2.2	97
-20+35M	2.5	93.8	0.0117	0.3	1.9	93.1	1.1	98.1
-35+65M	1.6	95.4	0.0099	0.26	1.1	94.2	0.6	98.7
-65+100M	0.5	95.9	0.0209	0.21	0.7	94.9	0.2	98.9
-100M	4.1	100	0.0192	0.19	5.1	100	1.1	100
Composite	100		0.0154	0.69	100		100	

**Table 13-10 Head Screen Analysis Results - North Wind Pit Sample #6**  
**As Received Feed Size**  
 (From Medina, 2012)

Size	Weight,	Cum. Wt.,	Assay		Distribution			
			oz/ton		Au		Ag	
Fraction	%	%	Au	Ag	%	Cum. %	%	Cum. %
+4"	21.1	21.1	0.0181	0.66	21.8	21.8	23.5	23.5
-4+2"	16.8	37.9	0.0195	0.61	18.7	40.5	17.3	40.8
-2+1"	15.9	53.8	0.0193	0.67	17.6	58.1	18	58.8
-1+3/4"	5.6	59.4	0.019	0.63	6.1	64.2	5.9	64.7
-3/4+1/2"	9.2	68.6	0.0161	0.56	8.5	72.7	8.7	73.4
-1/2+1/4"	10.9	79.5	0.0157	0.6	9.8	82.5	11	84.4
-1/4"+10M	11.2	90.7	0.014	0.53	9	91.5	10	94.4
-10+20M	2.8	93.5	0.0119	0.49	1.9	93.4	2.3	96.7
-20+35M	1.7	95.2	0.0109	0.43	1	94.4	1.2	97.9
-35+65M	0.9	96.1	0.0092	0.42	0.5	94.9	0.6	98.5
-65+100M	0.3	96.4	0.0099	0.41	0.2	95.1	0.2	98.7
-100M	3.6	100	0.0237	0.22	4.9	100	1.3	100
Composite	100		0.0175	0.59	100		100	

**Table 13-11 Head Screen Analysis Results - Breeze Pit Sample #7**  
**As Received Feed Size**  
 (From Medina, 2012)

Size	Weight,	Cum. Wt.,	Assay,		Distribution			
			oz/ton		Au		Ag	
Fraction	%	%	Au	Ag	%	Cum. %	%	Cum. %
+4"	13.7	13.7	0.0186	0.69	9.7	9.7	12.4	12.4
-4+2"	17.6	31.3	0.0235	0.96	15.7	25.4	22.1	34.5
-2+1"	17.2	48.5	0.0305	0.8	19.9	45.3	18	52.5
-1+3/4"	7	55.5	0.0325	0.8	8.6	53.9	7.3	59.8
-3/4+1/2"	8	63.5	0.0316	0.75	9.6	63.5	7.8	67.6
-1/2+1/4"	12	75.5	0.029	0.76	13.2	76.7	11.9	79.5
-1/4"+10M	13	88.5	0.0228	0.62	11.2	87.9	10.5	90
-10+20M	3.3	91.8	0.019	0.65	2.4	90.3	2.8	92.8
-20+35M	2	93.8	0.0169	0.67	1.3	91.6	1.8	94.6
-35+65M	1	94.8	0.0164	0.93	0.6	92.2	1.2	95.8
-65+100M	0.4	95.2	0.0166	0.75	0.2	92.4	0.4	96.2
-100M	4.8	100	0.0417	0.6	7.6	100	3.8	100
Composite	100		0.0264	0.76	100		100	

**Table 13-12. Wind Mountain Bulk Samples Metallurgical Results Summary**  
 (From Medina, 2012; note that samples labeled South Pit and North Pit are from the southern and northern parts of the Wind pit, respectively)

Sample I.D.	Test Type	Feed Size	Leach/Rinse Time Days	Sol. Applied ton/ton ore		NaCn Conc. Lbs/ton Sol	Au Rec. %	oz Au/ton ore				Ag Rec. %	oz Ag/ton ore				Reagent Req. lbs./ton ore	
				Leach	Rinse			Tail Ext'd.	Tail Assay	Calc'd. Head	Head Assay		Tail Ext'd.	Tail Assay	Calc'd. Head	Head Assay	NaCn Cons.	Lime Added
Heap #1	CLT	80%-1/2"	79	2.36	0.35	2	11.8	0.0008	0.0060	0.0068	0.0068	9.4	0.03	0.29	0.32	0.32	0.87	3.0
Heap #1	CLT	80%-1/4"	80	2.29	0.41	2	15.9	0.0011	0.0058	0.0069	0.0068	12.9	0.04	0.27	0.31	0.32	1.63	3.0
Heap #1	BRT	80%-1/2"	N/A	N/A	N/A	4	7.4	0.0005	0.0063	0.0068	0.0066	6.5	0.02	0.29	0.31	0.31	0.15	1.6
Heap #1	BRT	80%-10M	N/A	N/A	N/A	1	26.0	0.0019	0.0054	0.0073	0.0066	18.8	0.06	0.23	0.32	0.31	0.07	3.7
Heap #1	BRT	80%-10M	N/A	N/A	N/A	2	23.0	0.0017	0.0057	0.0074	0.0066	21.2	0.07	0.23	0.33	0.31	0.14	3.5
Heap #1	BRT	80%-10M	N/A	N/A	N/A	4	25.7	0.0018	0.0052	0.0070	0.0066	25.0	0.07	0.21	0.28	0.31	0.15	2.5
Heap #2	BRT	80%-1/2"	N/A	N/A	N/A	4	24.5	0.0012	0.0037	0.0049	0.0042	8.8	0.05	0.52	0.57	0.60	0.15	1.8
Heap #2	BRT	80%-10M	N/A	N/A	N/A	1	41.3	0.0019	0.0027	0.0046	0.0042	22.8	0.13	0.44	0.57	0.60	0.17	2.9
Heap #2	BRT	80%-10M	N/A	N/A	N/A	2	46.9	0.0023	0.0026	0.0049	0.0042	24.6	0.15	0.46	0.61	0.60	<0.05	2.8
Heap #2	BRT	80%-10M	N/A	N/A	N/A	4	46.9	0.0023	0.0022	0.0049	0.0042	25.9	0.15	0.43	0.58	0.60	<0.05	2.5
Heap #3	BRT	80%-1/2"	N/A	N/A	N/A	4	18.4	0.0007	0.0031	0.0038	0.0045	11.5	0.03	0.23	0.26	0.26	0.15	1.9
Heap #3	BRT	80%-10M	N/A	N/A	N/A	1	60.7	0.0034	0.0022	0.0056	0.0045	25.9	0.07	0.20	0.27	0.26	0.15	3.4
Heap #3	BRT	80%-10M	N/A	N/A	N/A	2	40.4	0.0023	0.0034	0.0057	0.0045	30.8	0.08	0.18	0.26	0.26	<0.05	3.4
Heap #3	BRT	80%-10M	N/A	N/A	N/A	4	56.9	0.0029	0.0022	0.0051	0.0045	33.3	0.08	0.16	0.24	0.26	0.14	2.9
Waste Dump #4	BRT	80%-1/2"	N/A	N/A	N/A	4	48.4	0.0045	0.0048	0.0093	0.0099	10.5	0.04	0.34	0.38	0.32	0.15	2.0
Waste Dump #4	BRT	80%-10M	N/A	N/A	N/A	1	68.9	0.0084	0.0038	0.0122	0.0099	25.0	0.09	0.27	0.36	0.32	0.14	4.3
Waste Dump #4	BRT	80%-10M	N/A	N/A	N/A	2	70.3	0.0083	0.0035	0.0118	0.0099	29.4	0.10	0.24	0.34	0.32	0.14	3.4
Waste Dump #4	BRT	80%-10M	N/A	N/A	N/A	4	71.4	0.0095	0.0038	0.0133	0.0099	28.6	0.10	0.25	0.35	0.32	0.29	3.3
South Pit #5	BRT	80%-1/2"	N/A	N/A	N/A	4	35.0	0.0063	0.0117	0.0180	0.0173	14.0	0.12	0.74	0.86	0.77	<0.05	1.8
South Pit #5	BRT	80%-10M	N/A	N/A	N/A	1	53.1	0.0103	0.0091	0.0194	0.0173	34.6	0.28	0.53	0.81	0.77	0.18	3.4
South Pit #5	BRT	80%-10M	N/A	N/A	N/A	2	53.5	0.0099	0.0086	0.0185	0.0173	36.3	0.29	0.51	0.80	0.77	0.14	3.2
South Pit #5	BRT	80%-10M	N/A	N/A	N/A	4	52.5	0.0106	0.0096	0.0202	0.0173	36.6	0.30	0.52	0.82	0.77	0.30	2.9
North Pit #6	CLT	80%-1/2"	136	4.58	0.35	2	60.0	0.0099	0.0066	0.0165	0.0153	14.8	0.09	0.52	0.61	0.55	1.78	2.5
North Pit #6	CLT	80%-1/4"	127	4.35	0.40	2	66.5	0.0111	0.0056	0.0167	0.0153	23.2	0.13	0.43	0.56	0.54	2.96	2.5
North Pit #6	BRT	80%-1/2"	N/A	N/A	N/A	4	43.4	0.0056	0.0073	0.0129	0.0131	6.4	0.03	0.44	0.47	0.49	0.16	1.2
North Pit #6	BRT	80%-10M	N/A	N/A	N/A	1	68.7	0.0125	0.0057	0.0182	0.0131	21.6	0.11	0.40	0.51	0.49	<0.05	3.4
North Pit #6	BRT	80%-10M	N/A	N/A	N/A	2	69.2	0.0110	0.0049	0.0159	0.0131	25.0	0.12	0.36	0.48	0.49	<0.05	2.7
North Pit #6	BRT	80%-10M	N/A	N/A	N/A	4	68.6	0.0116	0.0053	0.0169	0.0131	22.4	0.11	0.38	0.49	0.49	0.15	2.6
Breeze Pit #7	CLT	80%-1/2"	126	5.71	0.36	2	79.1	0.0197	0.0052	0.0249	0.0280	11.1	0.08	0.64	0.72	0.79	3.11	3.0
Breeze Pit #7	CLT	80%-1/4"	126	5.37	0.34	2	83.1	0.0207	0.0042	0.0249	0.0280	13.0	0.10	0.67	0.77	0.79	4.13	3.0
Breeze Pit #7	BRT	80%-1/2"	N/A	N/A	N/A	4	53.8	0.0143	0.0123	0.0266	0.0263	6.4	0.05	0.73	0.78	0.79	<0.05	1.4
Breeze Pit #7	BRT	80%-10M	N/A	N/A	N/A	1	82.7	0.0302	0.0063	0.0365	0.0263	20.7	0.17	0.65	0.82	0.79	<0.05	3.9
Breeze Pit #7	BRT	80%-10M	N/A	N/A	N/A	2	85.3	0.0266	0.0046	0.0312	0.0263	20.5	0.17	0.66	0.83	0.79	0.15	3.4
Breeze Pit #7	BRT	80%-10M	N/A	N/A	N/A	4	83.6	0.0290	0.0058	0.0354	0.0263	20.3	0.16	0.63	0.79	0.79	<0.05	2.4

CLT = Column Test  
 BRT = Bottle Roll Test

**Table 13-13. Overall Metallurgical Results – Column Percolation Leach Tests**  
(From Medina, 2012)

	Heap #1				North Wind Pit #6				Breeze Pit #7			
Feed Size	80%-1/2"		80%-1/4"		80%-1/2"		80%-1/4"		80%-1/2"		80%-1/4"	
Metallurgical Results	(P-1)		(P-4)		(P-2)		(P-5)		(P-3)		(P-6)	
Extraction: % of total	Au	Ag	Au	Ag	Au	Ag	Au	Ag	Au	Ag	Au	Ag
in 5 days	8.8	4.1	13	8.7	38.2	6.9	46.7	12.9	43	6.1	55.4	8.1
in 10 days	10.3	5.3	14.5	10.3	45.5	8.7	53.3	15.5	58.2	7.5	67.5	9.7
in 15 days	10.3	5.9	14.5	10.6	47.9	9.3	55.7	16.4	64.7	8.1	72.7	10.3
in 20 days	10.3	6.3	14.5	11.3	50.3	10	57.5	17.3	67.5	8.5	74.7	10.6
in 30 days	10.3	6.3	14.5	11.3	53.9	10.8	59.3	18.6	71.1	9	77.1	11.2
in 40 days	11.8	7.2	15.9	12.3	55.2	11.5	62.9	19.6	73.1	9.4	78.3	11.6
in 50 days	11.8	7.2	15.9	12.3	55.8	11.6	62.9	19.6	74.3	9.7	80.3	11.9
in 60 days	11.8	7.5	15.9	12.9	57.6	12.5	64.1	20.9	75.1	10	80.7	12.1
in 70 days	11.8	7.5	15.9	12.9	57.6	12.6	64.1	21.1	75.1	10	80.7	12.2
in 80 days			15.9	12.9	58.2	13.3	65.3	22	76.7	10.3	81.5	12.5
in 90 days					58.8	13.3	65.3	22.1	77.1	10.4	81.5	12.5
in 100 days					59.4	13.9	65.9	22.9	78.3	10.7	82.3	12.7
in 110 days					60	14.1	65.9	23	78.3	10.7	82.3	12.9
in 120 days					60	14.1	65.9	23	78.3	10.7	82.3	12.9
End of Leach/Rinse	11.8	9.4	15.9	12.9	60	14.8	66.5	23.2	79.1	11.1	83.1	13
Extracted, oz/ton ore	8E-04	0.03	0.001	0.04	0.01	0.09	0.011	0.13	0.02	0.08	0.021	0.1
Tail Screen, oz/ton ore	0.006	0.29	0.006	0.27	0.007	0.52	0.006	0.43	0.005	0.64	0.004	0.67
Calculated Head, oz/ton ore	0.007	0.32	0.007	0.31	0.017	0.61	0.017	0.56	0.025	0.72	0.025	0.77
Average Head, oz/ton ore <sup>1)</sup>	0.007	0.32	0.007	0.32	0.015	0.54	0.015	0.54	0.028	0.79	0.028	0.79
NaCN Consumed, lb/ton ore	0.87	1.63	1.78	2.96	3.11	4.19						
Lime Added, lb/ton ore	3	3	2.5	2.5	3	3						
Final Solution pH	11.1	11.3	10.9	10.9	10.8	10.9						
pH After Rinse	11.4	11	10.9	10.7	11.1	10.8						
Leach/Rinse Cycle, Days	79	80	126	127	126	126						

1) Average of all head assay and head grade determinations.

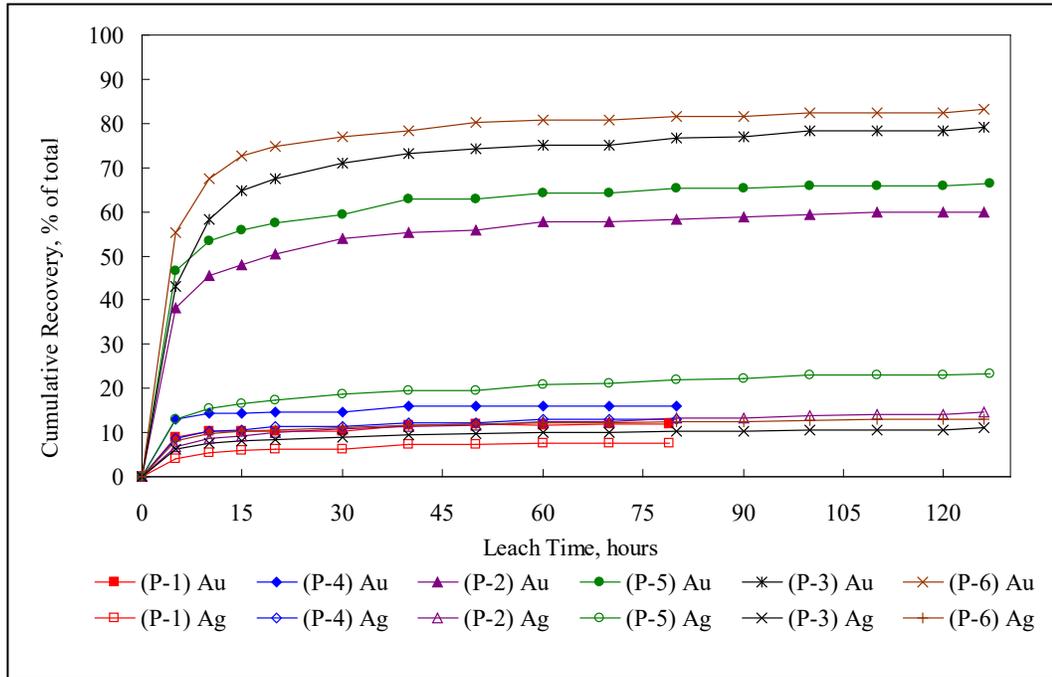


Figure 13-1. Gold and Silver Leach Rate Profiles, Column Percolation Leach Tests  
(From Medina, 2012)

Table 13-14. Metallurgical Balances, Column Leach Tests, Various Feed Sizes  
(From Medina, 2012)

	Metallurgical Balance		
	Sol. vs. Tail	Carbon vs. Tail	Head vs. Tail <sup>2)</sup>
<b>Heap #1 (P-1), 80%-1/2" Feed Size</b>			
Extracted, oz Au/ton ore	0.0008	0.0009	0.0008
Tail Assay, oz Au/ton ore	0.006	0.006	0.006
Calculated, Head, oz Au/ton ore	0.0068	0.0069	0.0068
Recovery, %	11.8	13	11.8
Deviation, oz Au/ton ore <sup>1)</sup>	N/A	0.0001	0
Precision, %	100	98.5	100
<b>Heap #1 (P-4), 80%-1/4" Feed Size</b>			
Extracted, oz Au/ton ore	0.0011	0.0012	0.001
Tail Assay, oz Au/ton ore	0.0058	0.0058	0.0058
Calculated, Head, oz Au/ton ore	0.0069	0.007	0.0068
Recovery, %	15.9	17.1	14.7
Deviation, oz Au/ton ore <sup>1)</sup>	N/A	0.0001	0.0001
Precision, %	100	98.6	98.6
<b>North Wind Pit #6 (P-2), 80%-1/2" Feed Size</b>			
Extracted, oz Au/ton ore	0.0099	0.0106	0.0087
Tail Assay, oz Au/ton ore	0.0066	0.0066	0.0066
Calculated, Head, oz Au/ton ore	0.0165	0.0172	0.0153
Recovery, %	60	61.6	56.9
Deviation, oz Au/ton ore <sup>1)</sup>	N/A	0.0007	0.0012
Precision, %	100	95.8	92.7
<b>North Wind Pit #6 (P-5), 80%-1/4" Feed Size</b>			
Extracted, oz Au/ton ore	0.0111	0.0115	0.0097
Tail Assay, oz Au/ton ore	0.0056	0.0056	0.0056
Calculated, Head, oz Au/ton ore	0.0167	0.0171	0.0153
Recovery, %	66.5	67.3	63.4
Deviation, oz Au/ton ore <sup>1)</sup>	N/A	0.0004	0.0014
Precision, %	100	97.6	91.6

Breeze Pit #7 (P-3), 80%-1/2" Feed Size			
Extracted, oz Au/ton ore	0.0197	0.0216	0.0228
Tail Assay, oz Au/ton ore	0.0052	0.0052	0.0052
Calculated, Head, oz Au/ton ore	0.0249	0.0268	0.028
Recovery, %	79.1	80.6	81.4
Deviation, oz Au/ton ore <sup>1)</sup>	N/A	0.0019	0.0031
Precision, %	100	92.4	87.6
Breeze Pit #7 (P-6), 80%-1/4" Feed Size			
Extracted, oz Au/ton ore	0.0207	0.0227	0.0238
Tail Assay, oz Au/ton ore	0.0042	0.0042	0.0042
Calculated, Head, oz Au/ton ore	0.0249	0.0269	0.028
Recovery, %	83.1	84.4	85
Deviation, oz Au/ton ore <sup>1)</sup>	N/A	0.002	0.0031
Precision, %	100	92	87.6

1) Deviation from solution versus tail balance.

2) Calculated, based on average of all head grades and tail screen results.

Table 13-15 Physical Ore Characteristic Data, Column Leach Tests

(From Medina, 2012)

	Feed	Test	Ore	Moisture, wt. %			Apparent Bulk Density,	
			Charge,	As	To	Retained	lb ore/ft <sup>3</sup>	
Sample Designation	Size	No.	lb	Rec=d.	Saturate*		Before	After
Heap #1	80%-1/2"	P-1	147.29	0.3	9.7	6.5	95.64	95.21
Heap #1	80%-1/4"	P-4	74.01	0.3	21	7.3	88.83	92.45
North Wind Pit #6	80%-1/2"	P-2	149.63	0.3	11.9	10.5	89.15	89.15
North Wind Pit #6	80%-1/4"	P-5	74.27	0.3	19.9	10.4	92.22	93.29
Breeze Pit #7	80%-1/2"	P-3	147.22	0.2	17.2	15.9	89.13	89.29
Breeze Pit #7	80%-1/4"	P-6	72.88	0.4	20.7	9.2	91.55	92.36

\* Calculated on a dry ore weight basis.

Conclusions provided by McClelland (Medina, 2012) are as follows:

- / The Heap #1 (heap leached residue) sample was not readily amenable to simulated heap leaching treatment, at 80%-1/2" and 80%-1/4" recrush sizes. Low head grade and low recovery was most likely due to sample already being leached.
- / The North [Wind] Pit #6 sample was moderately amenable to simulated heap leach cyanidation treatments at 80%-1/2" and 80%-1/4" recrush sizes.
- / The Breeze pit #7 sample was more readily amenable to simulated heap leach cyanidation treatments at 80%-1/2" and 80%-1/4" recrush sizes.
- / The three samples subjected to column testing were not particularly sensitive to crush size in the 1/2" to 1/4" feed size range evaluated.
- / Cyanide consumptions were fairly high, but should be substantially lower during commercial production. Controlling pH was not difficult.

These samples demonstrate that overall the material at Wind Mountain will be amenable to heap leaching. However, these samples are location specific and cannot be considered to represent all of the deposit(s). Additional work must be done to study and assess changes in metallurgical recovery spatially.

## 14.0 MINERAL RESOURCES

### 14.1 INTRODUCTION

Mr. Lindholm classifies resources in order of increasing geological and quantitative confidence into Inferred, Indicated, and Measured categories to comply with the “CIM Definition Standards - For Mineral Resources and Mineral Reserves” (2014) and therefore Canadian National Instrument 43-101. CIM mineral resource definitions are given below, with CIM’s explanatory material shown in italics:

#### **Mineral Resource**

*Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories. An Inferred Mineral Resource has a lower level of confidence than that applied to an Indicated Mineral Resource. An Indicated Mineral Resource has a higher level of confidence than an Inferred Mineral Resource but has a lower level of confidence than a Measured Mineral Resource.*

A Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the Earth’s crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.

*Material of economic interest refers to diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal, and industrial minerals.*

*The term Mineral Resource covers mineralization and natural material of intrinsic economic interest which has been identified and estimated through exploration and sampling and within which Mineral Reserves may subsequently be defined by the consideration and application of Modifying Factors. The phrase ‘reasonable prospects for eventual economic extraction’ implies a judgment by the Qualified Person in respect of the technical and economic factors likely to influence the prospect of economic extraction. The Qualified Person should consider and clearly state the basis for determining that the material has reasonable prospects for eventual economic extraction. Assumptions should include estimates of cutoff grade and geological continuity at the selected cut-off, metallurgical recovery, smelter payments, commodity price or product value, mining and processing method and mining, processing and general and administrative costs. The Qualified Person should state if the assessment is based on any direct evidence and testing.*

*Interpretation of the word ‘eventual’ in this context may vary depending on the commodity or mineral involved. For example, for some coal, iron, potash deposits and other bulk minerals or commodities, it may be reasonable to envisage ‘eventual economic extraction’ as covering time periods in excess of 50 years. However, for many gold deposits, application of the concept would normally be restricted to perhaps 10 to 15 years, and frequently to much shorter periods of time.*

#### **Inferred Mineral Resource**

An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity. An

Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

*An Inferred Mineral Resource is based on limited information and sampling gathered through appropriate sampling techniques from locations such as outcrops, trenches, pits, workings and drill holes. Inferred Mineral Resources must not be included in the economic analysis, production schedules, or estimated mine life in publicly disclosed Pre-Feasibility or Feasibility Studies, or in the Life of Mine plans and cash flow models of developed mines. Inferred Mineral Resources can only be used in economic studies as provided under NI 43-101.*

*There may be circumstances, where appropriate sampling, testing, and other measurements are sufficient to demonstrate data integrity, geological and grade/quality continuity of a Measured or Indicated Mineral Resource, however, quality assurance and quality control, or other information may not meet all industry norms for the disclosure of an Indicated or Measured Mineral Resource. Under these circumstances, it may be reasonable for the Qualified Person to report an Inferred Mineral Resource if the Qualified Person has taken steps to verify the information meets the requirements of an Inferred Mineral Resource.*

#### **Indicated Mineral Resource**

An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve.

*Mineralization may be classified as an Indicated Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such as to allow confident interpretation of the geological framework and to reasonably assume the continuity of mineralization. The Qualified Person must recognize the importance of the Indicated Mineral Resource category to the advancement of the feasibility of the project. An Indicated Mineral Resource estimate is of sufficient quality to support a Pre-Feasibility Study which can serve as the basis for major development decisions.*

#### **Measured Mineral Resource**

A Measured Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proven Mineral Reserve or to a Probable Mineral Reserve.

*Mineralization or other natural material of economic interest may be classified as a Measured Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of*

*data are such that the tonnage and grade or quality of the mineralization can be estimated to within close limits and that variation from the estimate would not significantly affect potential economic viability of the deposit. This category requires a high level of confidence in, and understanding of, the geology and controls of the mineral deposit.*

The author reports resources at cutoffs that are reasonable for deposits of this nature given anticipated mining methods and plant processing costs, while also considering economic conditions, because of the regulatory requirements that a resource exists "*in such form and quantity and of such a grade or quality that it has reasonable prospects for eventual economic extraction.*"

## 14.2 WIND MOUNTAIN PROJECT RESOURCE ESTIMATE

The Wind Mountain project contains three primary deposits, the Wind, Breeze and Deep Min. Historical mining produced gold and silver from the near surface oxide portion of the deposits from the Wind and Breeze pits, located to the south and north, respectively, within the claim block. Mineralization in the Wind deposit is present in the footwall of the Wind Mountain fault, and the Breeze and Deep Min mineralization is downfaulted to the west across the fault. Oxide mineralization, which is the focus of Bravada's efforts towards potential future development, remains to the north of the Wind pit, to the south of the Breeze pit, and beneath both pits.

RESPEC (then MDA) produced an initial model and resource estimate for the Wind Mountain project in 2012. Since that time, Bravada has drilled 42 new holes in and around the Wind, Deep Min and Breeze deposits between 2012 and 2021. The Wind Mountain gold and silver mineral resource model and estimate was then updated on June 28, 2022, based on data derived from drilling completed through June 2021. The initial database used for the 2012 model and estimate (Ristorcelli and Dyer, 2014) contain data predating and including WM11-077. The current database contains subsequent drill-hole data from Fortune River/Bravada predating and including WM21-119. The drill-hole database has an effective date of July 15, 2022, which follows completion of the audit. The Wind Mountain mineral resource estimate has an effective date of October 4, 2022, the date when optimized pits used to constrain the resource were applied to the model.

Bravada has drilled three additional RC holes in 2022, WM22-120 to 122, that post-date the effective date of the drill-hole database. The three holes were drilled about 1400ft south-southeast of the Wind pit at the southern end of the modeled area. RESPEC considered the potential effect of the holes on the model and determined that the new data would cause slight modifications, and possibly some additions, to gold and silver domains. However, due to the low gold grades intercepted, the mineralization in the area would remain far outside the optimized pit.

### 14.2.1 WIND MOUNTAIN DATABASE

The Wind Mountain drilling database used for mineral resource modeling and estimation received from Bravada and audited by RESPEC contains 583 drill holes totaling 226,214ft of drilling (Table 14-1). Drilling was performed by four companies since 1982, including Fortune River/Bravada, which began drilling in 2007. AMAX, who conducted mining from 1989 to 1992, accounts for the bulk of the drilling (149,744ft in 426 holes). Only four core holes (0.7%) were drilled, with the remainder being RC (99.3%). Three holes drilled after the effective date of the database are not included in the summary table. A drill-hole map is given in Figure 10-1.

Table 14-1 Summary of Wind Mountain Drilling

Year	Company	RC Holes	RC Feet	Core Holes	Core Feet	Total Holes	Total Feet
1982-1991	AMAX	422	148,621	4	1,123	426	149,744
1982	Chevron	6	1,740	0	0	6	1,740
1984	Santa Fe Mining Co.	32	12,075	0	0	32	12,075
2007-2021	Fortune River/Bravada	119	62,655	0	0	119	62,655
1982-2021	<b>Grand Totals</b>	<b>579</b>	<b>225,091</b>	<b>4</b>	<b>1,123</b>	<b>583</b>	<b>226,214</b>

Table 14-2 presents descriptive statistics of all Wind Mountain drill-hole sample analytical data that was audited and imported into MineSight by RESPEC. The Wind Mountain drill database contains 43,074 gold assay records, of which 40,813 were used for resource estimation. There is conflicting collar location information associated with the 32 Santa Fe drill holes, resulting in rejection of 2,261 records for resource estimation. However, these data were maintained in the database, and were used as a rough guide for modeling; they are included in Table 14-2. A small number of assays were similarly excluded because the source and validity of the data was uncertain.

Table 14-2 Descriptive Statistics of All Assays in the Wind Mountain Drill-Hole Database

	Valid	Median	Mean	Std Dev	CV	Minimum	Maximum	Units
From	44,483					0.00	2075.0	ft
To	44,483					5.00	2080.0	ft
Length	44,483	5.00	5.09			1.00	160.0	ft
Au	43,074	0.0030	0.0061	0.0247	4.0466	0	4.790	oz Au/ton
Capped Au	43,074	0.0030	0.0060	0.0087	1.4587	0	0.300	oz Au/ton
Ag	42,556	0.1110	0.1691	0.2173	1.2852	0	10.232	oz Ag/ton
Capped Ag	42,556	0.1110	0.1685	0.2105	1.2492	0	5.00	oz Ag/ton
AuCN/AuFA ratio	816	50	52	33.92	0.65	3	128	%
AgCN/AuFA ratio	816	51	59	56.57	0.96	7	819	%
Gold Domain	44,483					1	9	
Silver Domain	44,483					9	15	
Redox Code	44,483					1	3	
Lithology Code	44,483					1	2	

There are 518 fewer silver assays than gold from three AMAX and five Fortune River/Bravada drill holes. The number of cyanide-soluble gold and silver assays is minimal at 816 samples relative to the total database. Logged geologic data, including rock types, and percentages of oxidation, silicification, clay alteration, quartz veins, calcite veins and pyrite veins were imported into the database, reviewed, and used for geologic and domain modeling where applicable. There are no density samples in the Wind Mountain data set. Collar locations, down-hole surveys, and gold and silver assay data were verified as described in Section 12.0.

It was reported that most of the historical RC drilling was performed dry, but due to environmental regulations, more recent holes were drilled with water injected to minimize the dust. Introduction of water

during drilling is a potential cause of down-hole contamination, even though it is less likely to occur above the water table. Regardless, the lack of core twins and the low-grade disseminated nature of the deposit render evaluation of sample integrity virtually impossible.

#### 14.2.2 WIND MOUNTAIN GEOLOGICAL MODEL

The Wind Mountain deposits strike north-south for about 8,400ft. The mineralization is tabular and sub-horizontal, dips shallowly to the west and south, and extends about 2,500ft east to west. The project consists of three distinct deposits, the Wind, Breeze and Deep Min. The Wind deposit is separated from the Breeze and Deep Min deposits by the Wind Mountain fault. The Breeze and Deep Min deposits appear to occupy the same stratigraphic horizon from the north near the surface (Breeze) to the south at depth, where the Deep Min deposit is on the downthrown side of the Wind deposit. Offset across the Wind Mountain fault increases from about 50 to 100ft at the north end to 800ft in the vicinity of the Deep Min deposit.

In 2012, paper cross sections were plotted with drill data (geologic and analytical) and topography. Bravada interpreted the upper contact of the Pyramid sequence, the boundaries between oxidized, mixed oxide/unoxidized and unoxidized rock, faults, feeder veins, the base of leach pads and dumps, and the Wind Mountain fault on these sections. The geologic cross sections were digitized and used to guide the gold and silver domains, which subsequently were modeled on paper sections, reviewed by Bravada and digitized.

Primary modeled geologic features are described below:

Pyramid sequence: The upper contact of the Pyramid sequence represents the basement beneath the mineralized zones. Mineralization occurs rarely in this unit.

Wind Mountain fault: The Wind Mountain fault is a mixed breccia and fracture fill zone that contains wall rock material and calcite and silica related to hot springs. Mineralization from the Wind deposit on the east side and the Breeze and Deep Min deposits to the west have been incorporated into the fault zone. The brecciated mineralization is discontinuous and has been diluted with unmineralized wall rock and barren vein material.

Secondary faults: In addition to the Wind Mountain fault, there are numerous additional high-angle faults interpreted by Bravada. Mineralization is almost certainly displaced by the faults, but the available geologic information is insufficient to consistently model the magnitude and sense of offset from section to section.

Feeder veins: Bravada geologists have interpreted feeder zones that control or localize mineralization based on observations and mapping in the pits.

Oxidation: Oxidation is not pervasive as there are localized zones of unoxidized material within the oxidized zone at all levels within the deposits. However, there is a distinct transition from predominantly oxidized to unoxidized rock, typically below the mineralized zone and above the upper contact of the Pyramid sequence. Clay content also increases downward across the oxide/mixed/unoxidized boundaries.

During modeling of the oxidation surfaces, there were local areas where the logged oxidation state between historical and more recent drilling was contradictory. Bravada geologists evaluated the inconsistent data, and considered the potential leachability of material as indicated by cyanide-soluble assays, in determining the most representative location for the oxide-mixed-sulfide boundaries. The volume of material where the

discrepancies occur is minimal and localized, and the issue is not significant with respect to the model and resources.

The mixed oxidation zone is associated primarily with the Deep Min mineralization adjacent to the Wind Mountain fault. Oxidation of pyrite appears to decrease westward with increasing distance from the Wind Mountain fault.

Silicification: There is a strong correlation between silicification and precious metals mineralization. However, although mineralization is almost always associated with silicification, not all silicified material is mineralized.

Clay: There is a correlation between mineralization and clay alteration locally, but these occurrences typically are in close proximity to the Wind Mountain fault. There is a very distinct clay-rich contact zone at the base of the tabular, sub-horizontal mineralized body. Clay altered zones above the mineralized body are spotty and localized.

Gold and pyrite: Locally, there is a distinct association between pyrite and gold, but overall the correlation is inconsistent throughout the mineralized area.

### 14.2.3 WIND MOUNTAIN DENSITY

There are no density measurements available for the Wind Mountain project, although there likely were data used for previous work. A tonnage factor of 13.2ft<sup>3</sup>/T was used for historical work, although no documentation has been found to explain when and how the value was derived.

RESPEC calculated a volume of 465,271,090ft<sup>3</sup> for material between the original surface and the current mined surface. The reported mine production is 24,635,000 tons of ore with a strip ratio of 0.41:1, which yields a tonnage factor of 13.14ft<sup>3</sup>/T for the mined volume. This tonnage factor was applied to all bedrock material in the block model above basement rock (Pyramid sequence), which was assigned tonnage factor of 13.0ft<sup>3</sup>/T. Using similar logic and data, tonnage factors of 14.5ft<sup>3</sup>/T and 16.8ft<sup>3</sup>/T were calculated for and applied to the dumps and leach pads, respectively.

### 14.2.4 WIND MOUNTAIN GOLD DOMAINS AND ESTIMATION

#### 14.2.4.1 GOLD DOMAIN MODEL

A gold model was produced for the Wind and Breeze/Deep Min deposits at Wind Mountain. Outside the Wind Mountain fault zone, a single set of gold domains was interpreted on a continuous set of 101 sections at 100ft-spacing. The domains were defined based on population breaks observed on a cumulative probability plot ("CPP") of all gold assays prior to compositing. The boundary between gold domains and lower grade material outside the domains is gradational between ~0.004 to ~0.006oz Au/ton. Internally, the grade within the domains is consistent. There are higher grade populations within the set of gold domains evident on the CPP, but the high-grade distribution is not consistent or predictable and cannot be modeled as a separate domain. Examples of modeled geology and gold domains are shown in

Figure 14-1 and Figure 14-2.

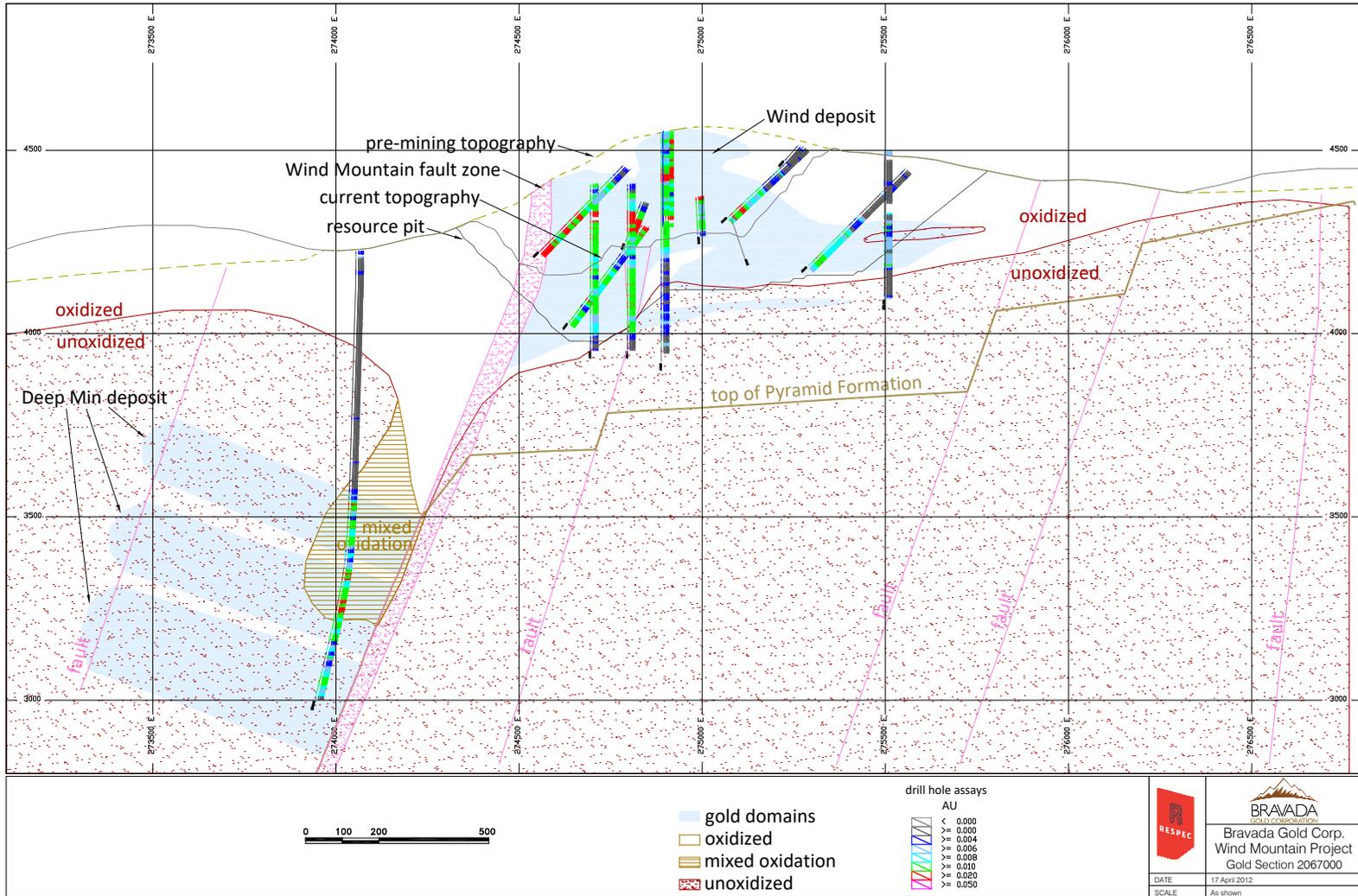


Figure 14-1. Wind Mountain Gold Domains and Geology in Wind and Deep Min Deposits in Wind Pit Area -- Section 206700N

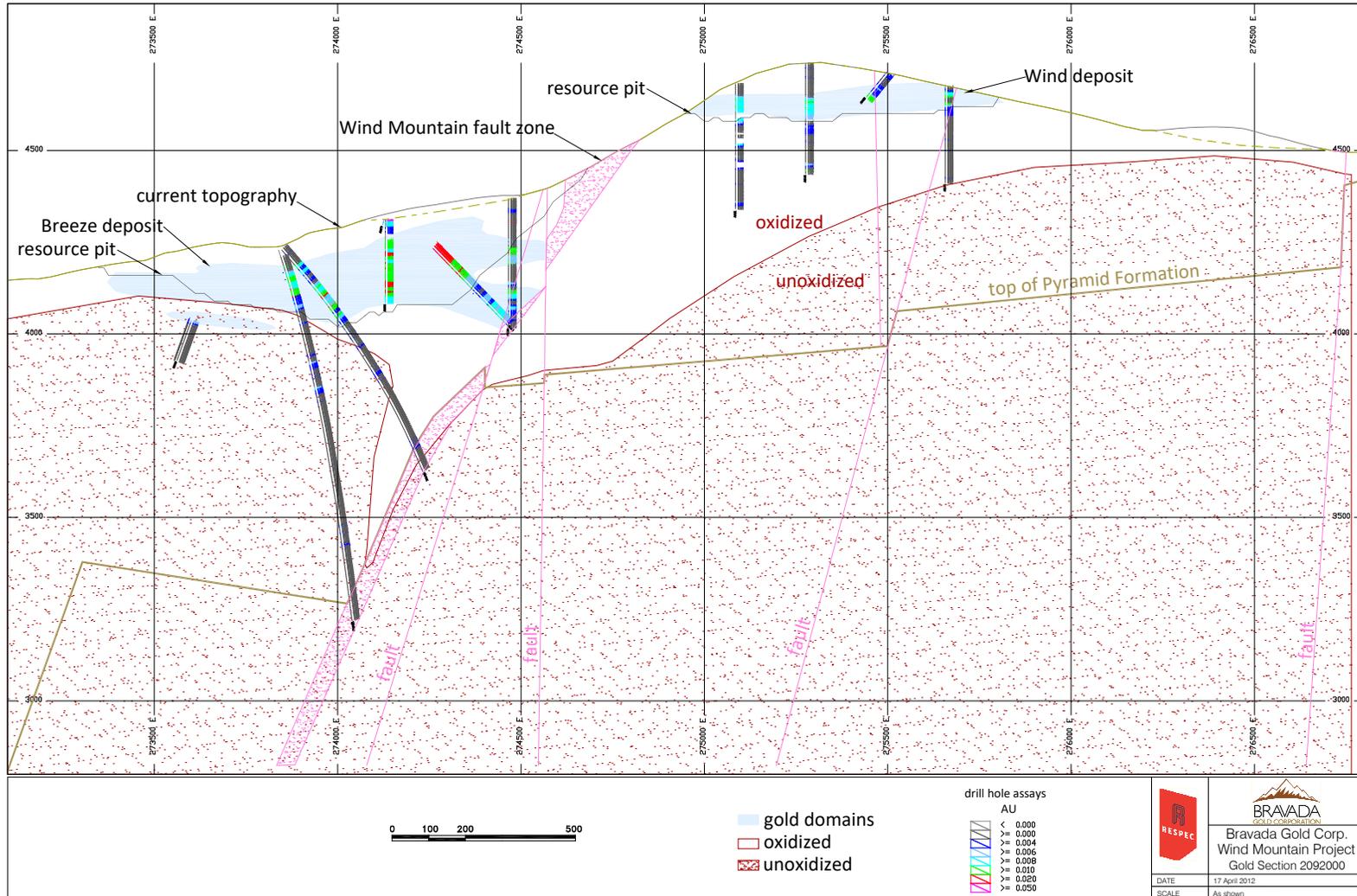


Figure 14-2. Wind Mountain Gold Domains and Geology in Wind and Breeze Deposits Between Wind and Breeze Pit Areas -- Section 2069200N

Descriptive statistics of gold sample assays are presented in Table 14-3. Three gold assays with no grade from dumps and leach pads are not included in the table.

Table 14-3 Descriptive Statistics of Gold Sample Grades in Drill Holes by Domain

GZONE		1 Gold Domain						
	Valid	Median	Mean	Std Dev	CV	Minimum	Maximum	Units
Length	14,143	5	4.999			1	12	ft
Au	13,607	0.00999	0.01382	0.04253	3.0763	0	4.79	oz Au/ton
Capped Au	13,607	0.01	0.01349	0.01175	0.8707	0	0.3	oz Au/ton
AuCN/AuFA ratio	600	47	51.41	33.49	0.65	3	121	%
Gold Domain	14,143					1	1	

GZONE		5 Wind Mountain Fault Gold Domain						
	Valid	Median	Mean	Std Dev	CV	Minimum	Maximum	Units
Length	988	5	5.046			5	45	ft
Au	900	0.00199	0.00363	0.0053	1.4577	0	0.048	oz Au/ton
Capped Au	900	0.002	0.00359	0.00499	1.3931	0	0.03	oz Au/ton
AuCN/AuFA ratio	0	0	0	0	0	0	0	%
Gold Domain	988					5	5	

GZONE		9 Outside Modeled Gold Domains						
	Valid	Median	Mean	Std Dev	CV	Minimum	Maximum	Units
Length	26,921	5	5.074			1	60	ft
Au	26,303	0.00199	0.00232	0.00398	1.7133	0	0.438	oz Au/ton
Capped Au	26,303	0.002	0.00229	0.00246	1.0742	0	0.04	oz Au/ton
AuCN/AuFA ratio	216	55	54.46	35.06	0.64	4	128	%
Gold Domain	26,921					9	9	

Metal domain modeling is discussed below in context with the primary geologic and other features in the Wind Mountain model:

Pyramid sequence: Metal domains were not drawn below the Pyramid sequence contact.

Wind Mountain fault: Because there has been post-mineralization movement along the Wind Mountain fault, unique gold and silver domains were modeled within the fault zone. Grade cutoffs were not used; instead, a broadly defined shape delineating the total width of the fault zone and the limits of mineralization along strike was modeled. Within the fault, the domains are the same for both metals and contain an inconsistent mixture of mineralized and unmineralized material. Resources within the fault are classified entirely as Inferred.

Secondary faults: As noted above, the available geologic information is insufficient to consistently model the magnitude and sense of offset across high-angle structures other than the Wind Mountain fault. As a

result, domains were generally modeled without offset, or may manifest as rapid thinning or thickening across the secondary faults.

Feeder veins: Bravada’s modeled feeder zones were not apparent in gold grades during sectional modeling, so RESPEC did not project domains along these zones.

Base of the leach pads and dumps: Metal domains were not projected upwards into waste dumps or heap leach pads.

Silicification and Clay Alteration: There is a strong correlation between silicification and mineralization, therefore, metal domains were modeled using silicified zones as a primary guide. Metal domains generally excluded clay altered zones.

After sectional interpretations were completed, the gold domains were snapped to drill holes and sliced on north-south-oriented long sections. The long sections were spaced 25ft apart, were located at the midplane of each north-south block row in the block model and were perpendicular to the 100ft-spaced cross sections. A total of 128 long sections were interpreted.

#### 14.2.4.2 GOLD CAPPING AND COMPOSITE STATISTICS

After the gold domains were defined and modeled on the 100ft-spaced cross sections, the domains were used to assign gold-domain codes to drill-hole samples. Quantile plots were made of the coded assays. Capping for each domain was determined by first assessing the grade above which the outliers occur. Then the outlier grades were reviewed on screen to determine materiality, grade, and proximity of the closest samples and general location. Descriptive statistics were generated and considered with respect to capping levels. Capping values were determined for each of the gold domains separately. Capping levels and number of samples capped are presented in Table 14-4.

Table 14-4 Capping Applied to Gold Assays

Gold Domain	Number Capped	Capping Grade (oz Au/ton)
Gold Domain	1	0.3
Wind Mountain Fault	12	0.03
Outside Modeled Domains	9	0.04

Once the capping was completed, the assays were down-hole composited to 10ft intervals. The composite length was chosen to avoid de-compositing small fractions of the original drilled sample intervals, which was predominantly 5 ft. Descriptive statistics of the composite database are given in Table 14-5.

Table 14-5 Descriptive Statistics of Composite Gold Sample Grades in Drill Holes by Domain

GZONE	1 Gold Domain							
	Valid	Median	Mean	Std Dev	CV	Minimum	Maximum	Units
Length	7,336	10	9.265			0	10	ft
Au	6,879	0.01049	0.01374	0.03059	2.2268	0.0005	2.409	oz Au/ton
Capped Au	6,879	0.0105	0.01341	0.01022	0.7623	0.0005	0.1685	oz Au/ton
Gold Domain	7,336					1	1	

GZONE		5 Wind Mountain Fault Gold Domain						
	Valid	Median	Mean	Std Dev	CV	Minimum	Maximum	Units
Length	470	10	8.713			0	10	ft
Au	422	0.00151	0.00307	0.00481	1.5658	0	0.0425	oz Au/ton
Capped Au	422	0.0015	0.00302	0.00448	1.4824	0	0.03	oz Au/ton
Gold Domain	470					5	5	
GZONE		9 Outside Modeled Gold Domains						
	Valid	Median	Mean	Std Dev	CV	Minimum	Maximum	Units
Length	14,756	10	9.018			0	10	ft
Au	13,431	0.00201	0.00238	0.00322	1.3514	0	0.2195	oz Au/ton
Capped Au	13,431	0.002	0.00235	0.00236	1.0033	0	0.0305	oz Au/ton
Gold Domain	14,756					9	9	

Correlograms were made from the composited gold grades in order to evaluate grade continuity. Correlogram parameters as described below were used in the kriged estimate, which was used as a check on the reported inverse distance estimate, and also to give guidance to the classification of mineral resources. The correlogram structures were nested spherical models with three ranges, which were applied to all gold domains. The nugget was 35% of the total sill. The first sill was 10% of the total sill with a range of 5 to 70ft depending on direction. The second sill was 35% of the total sill with ranges of 110 to 300ft depending on direction. The remaining sill (20%) had a range of around 320 to 500ft depending on direction.

#### 14.2.4.3 GOLD ESTIMATION

Three types of estimates were completed: inverse distance, nearest neighbor and kriged, with the inverse-distance estimate being reported. All estimate types were run several times in order to determine sensitivity to estimation parameters, and to evaluate and optimize results.

The estimation parameters were selected to honor interpreted geologic controls, sample distributions and the deposit grade statistics. The inverse distance power was three ("ID<sup>3</sup>") for the estimates inside and outside modeled gold domains, with the exception of the Wind Mountain fault domain estimate, which was four ("ID<sup>4</sup>"). Anisotropic search orientations and distances were applied during estimation for the modeled gold domains and outside modeled gold domains. Because the material within the fault zone is inconsistent and mixed, the search ellipse for the Wind Mountain fault domain estimate was isotropic. The search orientations, maximum search distances, and other estimation parameters applied to all estimate methodologies are given in Table 14-6 for the various domains.

Table 14-6 Wind Mountain Gold Estimation Parameters

Description	Parameter
Gold domain	
Number of composites: minimum/maximum/maximum per hole	1 / 15 / 3
Rotation/Dip/Tilt (variogram and searches):	10° / 5° / -5°
Search distances (ft): major/semimajor/minor (vertical)	Long Pass - 600 / 600 / 300, Short Pass - 300 / 300 / 150
Inverse distance power	3
High-grade restrictions (grade in oz Au/ton, distance in feet)	0.01 / 50*
Anisotropic weighting	yes
Wind Mountain Fault Domain	
Number of composites: minimum/maximum/maximum per hole	1 / 8 / 3
Rotation/Dip/Tilt (variogram and searches):	10° / 0° / 65°
Search distances (ft): major/semimajor/minor (vertical)	500 / 500 / 500
Inverse distance power	4
High-grade restrictions (grade in oz Au/ton, distance in feet)	0.01 / 50
Anisotropic weighting	No
Outside Modeled Domains	
Number of composites: minimum/maximum/maximum per hole	2 / 15 / 3
Rotation/Dip/Tilt (variogram and searches):	10° / 5° / -5°
Search distances (ft): major/semimajor/minor (vertical)	250 / 250 / 50
Inverse distance power	3
High-grade restrictions (grade in oz Au/ton, distance in feet)	0.005 / 40*
Anisotropic weighting	yes
* High-grade restriction grade applied beyond restriction distance	

The block model has not been rotated, and the blocks are 25ft north-south by 25ft east-west by 20ft vertical. The block dimensions have been chosen to best reflect the smallest unit potentially to be used for open-pit mining. Grade for each domain was estimated separately and then weight averaged to produce the reported fully block-diluted model.

## 14.2.5 WIND MOUNTAIN SILVER DOMAINS AND ESTIMATION

### 14.2.5.1 SILVER DOMAIN MODEL

A silver model was produced for the Wind and Breeze/Deep Min deposits at Wind Mountain. Outside the Wind Mountain fault zone, two sets of silver mineral domains were interpreted on a continuous set of 101 sections at 100ft-spacing. These domains were defined based on population breaks observed on the CPP of all silver assays prior to compositing. The low-grade silver domain forms a broad halo around both the gold and high-grade silver domains. The low-grade silver domain consists of grades between ~0.05 and ~0.15oz Ag/ton, and the mineralization in the high-grade silver domain is consistently distributed above ~0.15oz Ag/ton. Descriptive statistics of silver sample assays are presented in Table 14-7. Examples of modeled geology and silver domains are shown in Figure 14-3 and Figure 14-4.

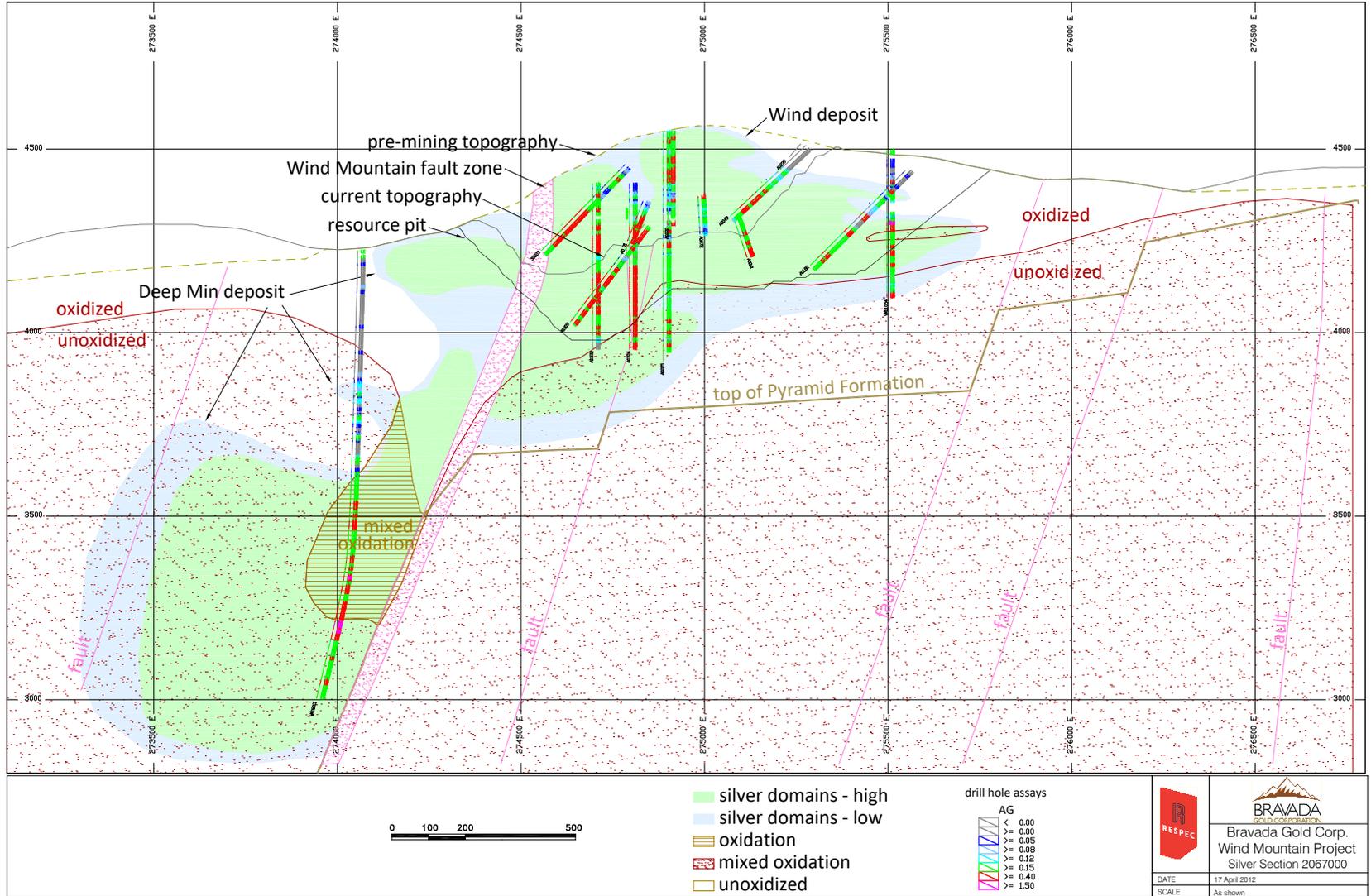


Figure 14-3. Wind Mountain Silver Domains and Geology in Wind and Deep Min Deposits in Wind Pit Area -- Section 2067000N

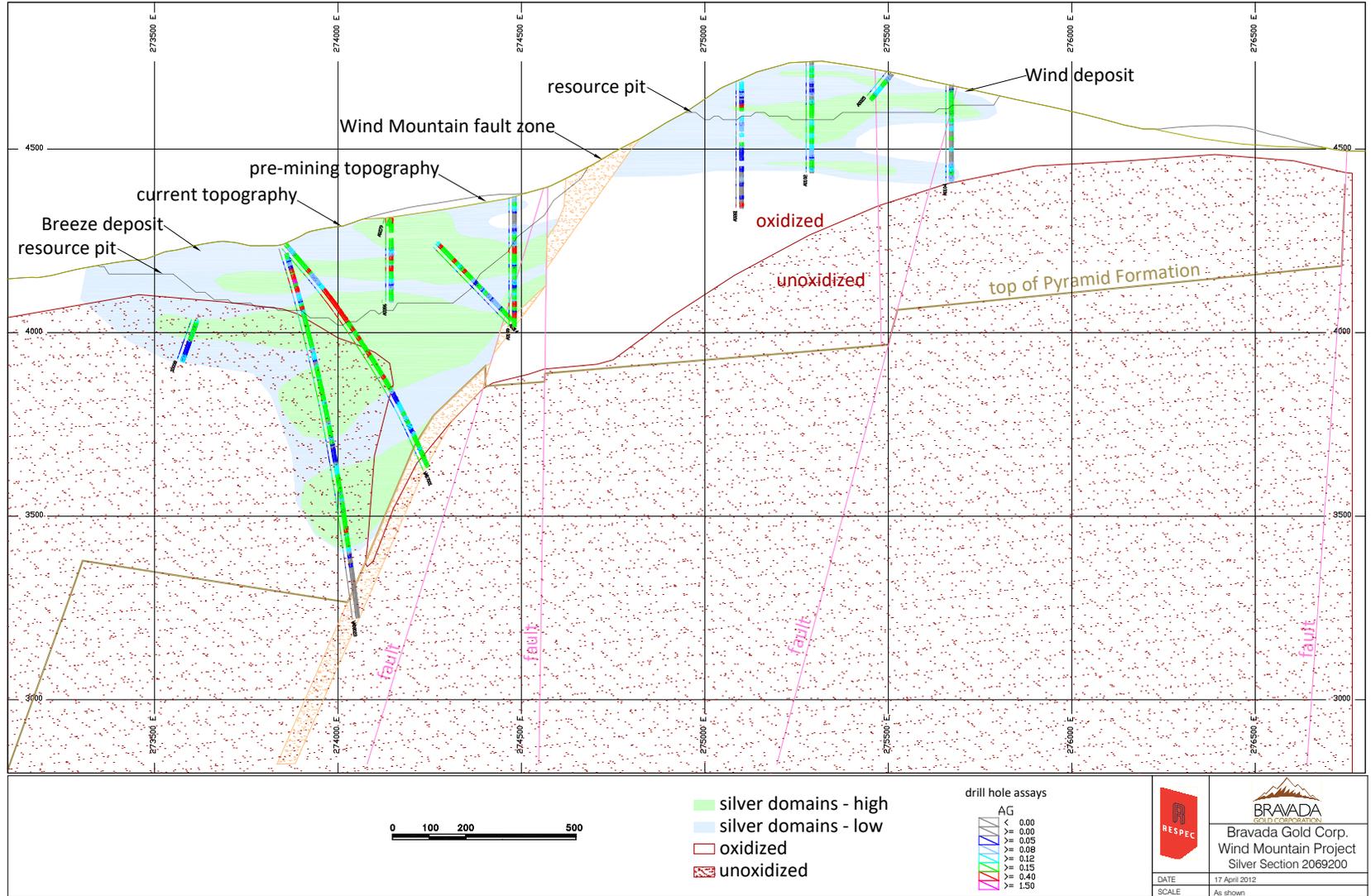


Figure 14-4. Wind Mountain Silver Domains and Geology in Wind and Breeze Deposits Between Wind and Breeze Pit Areas -- Section 2069200N

Table 14-7 Descriptive Statistics of Silver Sample Grades in Drill Holes by Domain

SZONE		11 Low-Grade Silver Domain						
	Valid	Median	Mean	Std Dev	CV	Minimum	Maximum	Units
Length	8,763	5	5.013			1	12	ft
Ag	8,454	0.096	0.1132	0.1102	0.9737	0	3.121	oz Ag/ton
Capped Ag	8,454	0.096	0.1129	0.1042	0.9233	0	2	oz Ag/ton
AgCN/AuFA ratio	66	58	61.89	24.01	0.39	19	180	%
Silver Domain	8,763					11	11	
SZONE		12 High-Grade Silver Domain						
	Valid	Median	Mean	Std Dev	CV	Minimum	Maximum	Units
Length	17,803	5	4.999			1	12	ft
Ag	17196	0.242	0.3096	0.2552	0.8243	0	10.232	oz Ag/ton
Capped Ag	17196	0.242	0.3093	0.2456	0.794	0	5	oz Ag/ton
AgCN/AuFA ratio	739	50	53.94	30.26	0.56	7	510	%
Silver Domain	17803					12	12	
SZONE		15 Wind Mountain Fault Silver Domain						
	Valid	Median	Mean	Std Dev	CV	Minimum	Maximum	Units
Length	880	5	5.051			5	45	ft
Ag	816	0.047	0.1009	0.1376	1.3638	0.002	1.097	oz Ag/ton
Capped Ag	816	0.047	0.0992	0.1286	1.2955	0.002	0.7	oz Ag/ton
AgCN/AuFA ratio	0	0	0	0	0	0	0	%
Silver Domain	880					15	15	
SZONE		9 Outside Modeled Silver Domains						
	Valid	Median	Mean	Std Dev	CV	Minimum	Maximum	Units
Length	14,614	5	5.128			1	60	ft
Ag	13,829	0.018	0.0388	0.0843	2.1731	0	2.039	oz Ag/ton
Capped Ag	13,829	0.018	0.0377	0.07	1.8565	0	0.7	oz Ag/ton
AgCN/AuFA ratio	11	430	387.54	262.34	0.68	59	818.9	%
Silver Domain	14,614					9	9	

As with gold, the boundary between the low-grade silver domains and lower grade material outside the domains is gradational. In a general sense there is reasonable correlation between the gold and high-grade silver domains, although there are substantial local differences that have warranted modeling the two metals independently.

After sectional interpretations were completed, the silver domains were snapped to drill holes and sliced on north-south-oriented long sections. The long sections were spaced 25ft apart, were located at the midplane of each north-south block row in the block model and were perpendicular to the 100ft-spaced cross sections. A total of 128 long sections were interpreted.

#### 14.2.5.2 SILVER CAPPING AND COMPOSITE STATISTICS

After the silver domains were defined and modeled on the 100ft-spaced cross sections, the domains were used to assign silver-domain codes to drill-hole samples. Quantile plots were made of the coded assays. Capping for each domain was determined by first assessing the grade above which the outliers occur. Then the outlier grades were reviewed on screen to determine materiality, grade, and proximity of the closest samples and general location. Descriptive statistics were generated and considered with respect to capping levels. Capping values were determined for each of the silver domains separately. Capping levels and number of samples capped are presented in Table 14-4.

Table 14-8 Capping Applied to Silver Assays

Silver Domain	Number Capped	Capping Grade (oz Ag/ton)
Low-Grade	3	2
High-Grade	3	5
Wind Mountain Fault	7	0.7
Outside Modeled Domains	30	0.7

Once the capping was completed, the assays were down-hole composited to 10ft intervals. The composite length was chosen to avoid de-compositing small fractions of the original drilled sample intervals, which was predominantly 5ft. Gradational domain boundaries were represented by compositing and coding domains in a similar manner to gold. Descriptive statistics of the composite database are given in Table 14-5.

Table 14-9 Descriptive Statistics of Composite Silver Grades in Drill Holes by Domain

SZONE 11 Low-Grade Silver Domain								
	Valid	Median	Mean	Std Dev	CV	Minimum	Maximum	Units
Length	4,656	10	9.101			0	10	ft
Ag	4,293	0.102	0.1174	0.096	0.8183	0	3.055	oz Ag/ton
Capped Ag	4,293	0.102	0.1171	0.0895	0.7641	0	2	oz Ag/ton
Silver Domain	4,656					11	11	
SZONE 12 High-Grade Silver Domain								
	Valid	Median	Mean	Std Dev	CV	Minimum	Maximum	Units
Length	9246	10	9.277			0	10	ft
Ag	8676	0.245	0.3075	0.2243	0.7293	0	5.224	oz Ag/ton
Capped Ag	8676	0.245	0.3072	0.2188	0.7123	0	3.632	oz Ag/ton
Silver Domain	9246					12	12	

**SZONE 15 Wind Mountain Fault Silver Domain**

	Valid	Median	Mean	Std Dev	CV	Minimum	Maximum	Units
Length	471	10	8.684			0	10	ft
Ag	422	0.054	0.1017	0.1284	1.2635	0.002	0.919	oz Ag/ton
Capped Ag	422	0.054	0.1001	0.122	1.2194	0.002	0.7	oz Ag/ton
Silver Domain	471					15	15	

**SZONE 9 Outside Modeled Silver Domains**

	Valid	Median	Mean	Std Dev	CV	Minimum	Maximum	Units
Length	8189	10	8.586			0	10	ft
Ag	7087	0.018	0.0405	0.0787	1.9444	0	1.718	oz Ag/ton
Capped Ag	7087	0.018	0.0393	0.0664	1.6873	0	0.732	oz Ag/ton
Silver Domain	8189					9	9	

As with gold, correlograms were made from the composited silver grades in order to evaluate grade continuity and to use as a check on the reported inverse distance estimate. The correlogram structures were nested spherical models with three ranges, which were applied to all silver domains. The nugget is 35% of the total sill. The first sill is 25% of the total sill with a range of 10 to 35ft depending on direction. The second sill is 20% of the total sill with ranges of 65 to 130ft depending on direction. The remaining sill (20%) has a range of around 400 to 500ft depending on direction.

**14.2.5.3 SILVER ESTIMATION**

As for gold, inverse distance, nearest neighbor and kriged estimates were completed for the silver model, with the inverse-distance estimate being reported. All estimate types were run several times in order to determine sensitivity to estimation parameters, and to evaluate and optimize results. The inverse-distance estimates inside and outside modeled silver domains were done using ID<sup>3</sup>, with the exception of the Wind Mountain fault domain estimate, which was ID<sup>4</sup>. Anisotropic search orientations and distances were applied during estimation for the modeled silver domains and outside modeled silver domains, however, the search ellipse for the Wind Mountain fault domain estimate was isotropic, as it was for the gold estimate. The search orientations, maximum search distances, and other estimation parameters are given in Table 14-10 for the various silver domains.

**Table 14-10 Wind Mountain Silver Estimation parameters**

Description	Parameter
<b>Low-grade silver domain</b>	
Number of composites: minimum/maximum/maximum per hole	1 / 15 / 3
Rotation/Dip/Tilt (variogram and searches):	10° / 5° / -5°
Search distances (ft): major/semimajor/minor (vertical)	Long Pass - 600 / 600 / 300, Short Pass - 300 / 300 / 100
Inverse distance power	3
High-grade restrictions (grade in oz Ag/ton, distance in feet)	0.3 / 50*
Anisotropic weighting	yes
<b>High-grade silver domain</b>	
Number of composites: minimum/maximum/maximum per hole	1 / 15 / 3
Rotation/Dip/Tilt (variogram and searches):	10° / 5° / -5°
Search distances (ft): major/semimajor/minor (vertical)	Long Pass - 600 / 600 / 300, Short Pass - 300 / 300 / 100
Inverse distance power	3
High-grade restrictions (grade in oz Ag/ton, distance in feet)	0.1 / 50*
Anisotropic weighting	yes
<b>Wind Mountain Fault Domain</b>	
Number of composites: minimum/maximum/maximum per hole	1 / 8 / 2
Rotation/Dip/Tilt (variogram and searches):	10° / 0° / 65°
Search distances (ft): major/semimajor/minor (vertical)	500 / 500 / 500
Inverse distance power	4
High-grade restrictions (grade in oz Ag/ton, distance in feet)	0.1 / 50
Anisotropic weighting	No
<b>Outside Modeled Domains</b>	
Number of composites: minimum/maximum/maximum per hole	2 / 15 / 3
Rotation/Dip/Tilt (variogram and searches):	10° / 5° / -5°
Search distances (ft): major/semimajor/minor (vertical)	250 / 250 / 50
Inverse distance power	3
High-grade restrictions (grade in oz Ag/ton, distance in feet)	0.05 / 40*
Anisotropic weighting	yes
* High-grade restriction grade applied beyond restriction distance	

#### 14.2.6 WIND MOUNTAIN GOLD AND SILVER RESOURCES

RESPEC classified the Wind Mountain resources giving consideration to confidence in the underlying database, sample integrity, analytical precision/reliability, and geologic interpretations. The criteria for resource classification are given in Table 14-11. RESPEC did not classify any of the resource as Measured due to the absence of supporting documentation for some historical data, the lack of quality control for much of the underlying historical database, minimal metallurgical data at depth (the data that does exist indicates potentially variable recoveries) and the inconsistencies in estimated silver grades

using exploration versus AMAX blasthole data. All of the Deep Min mineralization is classified as Inferred, primarily because the metallurgical data is minimal, and the model is based on only nine RC holes.

Table 14-11 Classification Criteria

<b>Indicated</b>
Inside modeled gold domains, exclusive of the Wind Mountain fault domain
And
Number of holes $\geq 4$ and number of composites $\geq 4$ and $\leq 150$ ft from closest sample, Or
Number of holes $\geq 2$ and number of composites $\geq 1$ and $\leq 50$ ft from closest sample, Or
Number of composites $\geq 1$ and $\leq 10$ ft from closest sample
<b>Inferred</b>
Inside any modeled domain that is not Indicated, Or
Below post-mineralization units, Or
In Deep Min deposit, Or
In Wind Mountain fault domain

Indicated and Inferred resources for the oxide resources at the Wind Mountain project are presented in Table 14-12 and Table 14-13 respectively. All resources are fully block-diluted, are reported within an optimized open pit, and the oxide material is reported at a cutoff of 0.006oz Au/ton. Indicated resources for the mixed and unoxidized material are given in Table 14-14 and Table 14-15, respectively. There is no Inferred material in the optimized pit that meets the mixed and unoxidized reporting cutoff of 0.014oz Au/ton. The mixed and unoxidized cutoff grade is higher than the oxide cutoff because the material would presumably have lower recoveries from a heap leach pad. Silver contributes minimally to the economics of the Wind Mountain project because recoveries determined from metallurgical test work to date are very low. Therefore, the reporting cutoff grade, denoted by the bolded line in each table, is based on gold only rather than a gold-equivalent cutoff grade that includes silver.

Table 14-12 Wind Mountain Indicated Gold and Silver Resources - Oxide in \$1750 Gold Price Optimized Pit

Cutoff oz Au/ton	Tons	oz Au/ton	oz Ag/ton	oz Au	oz Ag
0.004	50,096,000	0.010	0.25	496,000	12,674,000
0.005	48,562,000	0.010	0.26	490,500	12,432,000
<b>0.006</b>	<b>45,572,000</b>	<b>0.010</b>	<b>0.26</b>	<b>473,900</b>	<b>11,803,000</b>
0.008	35,217,000	0.012	0.27	408,500	9,649,000
0.010	21,655,000	0.014	0.30	292,300	6,475,000
0.012	12,746,000	0.016	0.32	200,100	4,079,000
0.014	7,754,000	0.018	0.34	138,000	2,605,000
0.016	4,597,000	0.020	0.35	92,900	1,627,000
0.018	2,784,000	0.023	0.37	62,900	1,030,000
0.020	1,786,000	0.025	0.38	44,500	682,000
0.025	713,000	0.030	0.41	21,300	289,000
0.030	282,000	0.035	0.42	9,800	119,000
0.040	43,000	0.045	0.53	1,900	23,000
0.050	7,000	0.055	0.46	400	3,000

Table 14-13 Wind Mountain Inferred Gold and Silver Resources - Oxide in \$1750 Gold Price Optimized Pit

Cutoff					
oz Au/ton	Tons	oz Au/ton	oz Ag/ton	oz Au	oz Ag
0.004	10,728,000	0.005	0.16	55,800	1,759,000
0.005	4,658,000	0.007	0.19	32,100	880,000
<b>0.006</b>	<b>2,604,000</b>	<b>0.008</b>	<b>0.19</b>	<b>21,900</b>	<b>497,000</b>
0.008	1,526,000	0.010	0.20	14,800	302,000
0.010	533,000	0.012	0.21	6,400	114,000
0.012	228,000	0.014	0.26	3,300	60,000
0.014	120,000	0.016	0.30	2,000	36,000
0.016	66,000	0.018	0.32	1,200	21,000
0.018	31,000	0.020	0.33	600	10,000
0.020	15,000	0.021	0.38	300	6,000

Table 14-14 Wind Mountain Indicated Gold and Silver Resources - Mixed in \$1750 Gold Price Optimized Pit

Cutoff					
oz Au/ton	Tons	oz Au/ton	oz Ag/ton	oz Au	oz Ag
0.004	35,000	0.011	0.28	400	10,000
0.005	35,000	0.011	0.28	400	10,000
0.006	35,000	0.011	0.28	400	10,000
0.008	27,000	0.012	0.30	300	8,000
0.010	19,000	0.013	0.33	300	6,000
0.012	13,000	0.015	0.35	200	5,000
<b>0.014</b>	<b>8,000</b>	<b>0.016</b>	<b>0.38</b>	<b>100</b>	<b>3,000</b>
0.016	5,000	0.017	0.40	100	2,000
0.018	1,000	0.018	0.43	-	-

Table 14-15 Wind Mountain Indicated Gold and Silver Resources - Unoxidized in \$1750 Gold Price Optimized Pit

Cutoff					
oz Au/ton	Tons	oz Au/ton	oz Ag/ton	oz Au	oz Ag
0.004	91,000	0.008	0.28	700	25,000
0.005	86,000	0.008	0.28	700	24,000
0.006	74,000	0.008	0.28	600	21,000
0.008	48,000	0.009	0.30	400	15,000
0.010	14,000	0.012	0.35	200	5,000
0.012	5,000	0.014	0.30	100	2,000
<b>0.014</b>	<b>3,000</b>	<b>0.015</b>	<b>0.33</b>	-	<b>1,000</b>
0.016	1,000	0.016	0.34	-	-

Notes:

- The Effective Date of the Wind Mountain mineral resources is October 4, 2022.
- The estimate of mineral resources was done by RESPEC in Imperial tons.
- Mineral Resources comprised all model blocks at a 0.006oz Au/ton cut-off for Oxide within an optimized pit and 0.014oz Au/ton for Mixed and Unoxidized within an optimized pit.
- The project mineral resources (base cases) in Table 14-12 through Table 14-15 are shown in bold and are comprised of all block-diluted Mineral Resources potentially amenable to open pit mining methods are reported using a gold price of US\$1,750/oz, a silver price of US\$21/oz and a throughput rate of 20,000 tonnes/day. Assumed metallurgical recoveries for gold are 62% for oxide, 20% for mixed and 15% for unoxidized. Assumed metallurgical recoveries for silver are 15% for oxide and 0% for mixed and unoxidized. Mining costs of US\$2.75/tonne mined, heap leach processing costs of US\$3.17/tonne processed, general and administrative costs of \$0.57/tonne processed. Gold and silver commodity prices were selected based on analysis of the three-year running average at the end of September 2022.
- Tabulations within the optimized pit at cutoffs above and below the base cases provide a measure of the sensitivity of possible resources that might result from future fluctuations in commodity prices and mining costs.
- Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
- The estimate of mineral resources may be materially affected by geology, environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues.
- Rounding may result in apparent discrepancies between tonnes, grade, and contained metal content.

The author reports the Wind Mountain mineral resources at cutoffs that are reasonable for low-sulfidation epithermal precious metal deposits of comparable size and grade. Technical and economic factors likely to influence the requirement "*in such form and quantity and of such a grade or quality that it has reasonable prospects for eventual economic extraction*" were evaluated using the best judgement of the author responsible for this section of the report. Within this context, it should be noted that mineral resources that are not mineral reserves do not have demonstrated economic viability. For evaluating the open-pit potential, RESPEC modeled a series of optimized pits using variable gold prices, mining costs, processing costs, and anticipated metallurgical recoveries. The pit-optimization parameters are summarized in the notes for the resources in Table 14-12 through Table 14-15 above, and Table 14-16 below. The authors used costs appropriate for open-pit mining in Nevada, estimated processing costs and metallurgical recoveries related to heap leaching, and G&A costs.

Table 14-16 Pit Optimization Parameters

Item	Value	Unit
Mining cost	2.75	\$/ton
Heap Leach Processing cost	3.17	\$/ton processed
Process rate	20,000	tons-per-day processed
General and Administrative cost	0.57	\$/ton processed
Au price	1,750	\$/oz
Ag price	21	\$/oz
Au recovery - Oxide	62	percent
Au recovery - Mixed	20	percent
Au recovery - Unoxidized	15	percent
Ag recovery - Oxide	15	percent
Ag recovery - Mixed & Unoxidized	0	percent
NSR Royalty	1	percent

The factors used in defining cutoff grades are based on gold and silver prices of \$1,750/oz Au and \$22/oz Ag, respectively, which are derived roughly from three-year moving-average prices as of September 2022. The mining cost is not included in the determination of the cutoff grade, as all material in the conceptual pit would potentially be mined as either ore or waste. The reference point at which the mineral resources are defined is therefore at the top rim of the pit, where material equal to or greater than the cut-off grade would be processed.

The tonnes, grade and ounces at cutoffs above and below the base case (bolded in Table 14-12 through Table 14-15) are presented to provide block value and grade-distribution data that allow for evaluation of the project resource sensitivity to fluctuating mining costs. All material at progressively higher cutoff grades reflects higher mining costs in the tables, such that the tabulations at those costs represent subsets of the reported base-case resources. Conversely, the tabulation at a lower mining cost cutoffs reflects the tonnes, grade and ounces present in the optimized pit if future improvements in mining methods or other factors result in lower mining costs.

Block-model grades are shown with gold and silver domains on cross sections in Figure 14-5 and Figure 14-6, respectively, in the Wind and Deep Min deposit areas. Figure 14-7 and Figure 14-8 present gold and silver block model grades, respectively, on section in the Breeze deposit area.

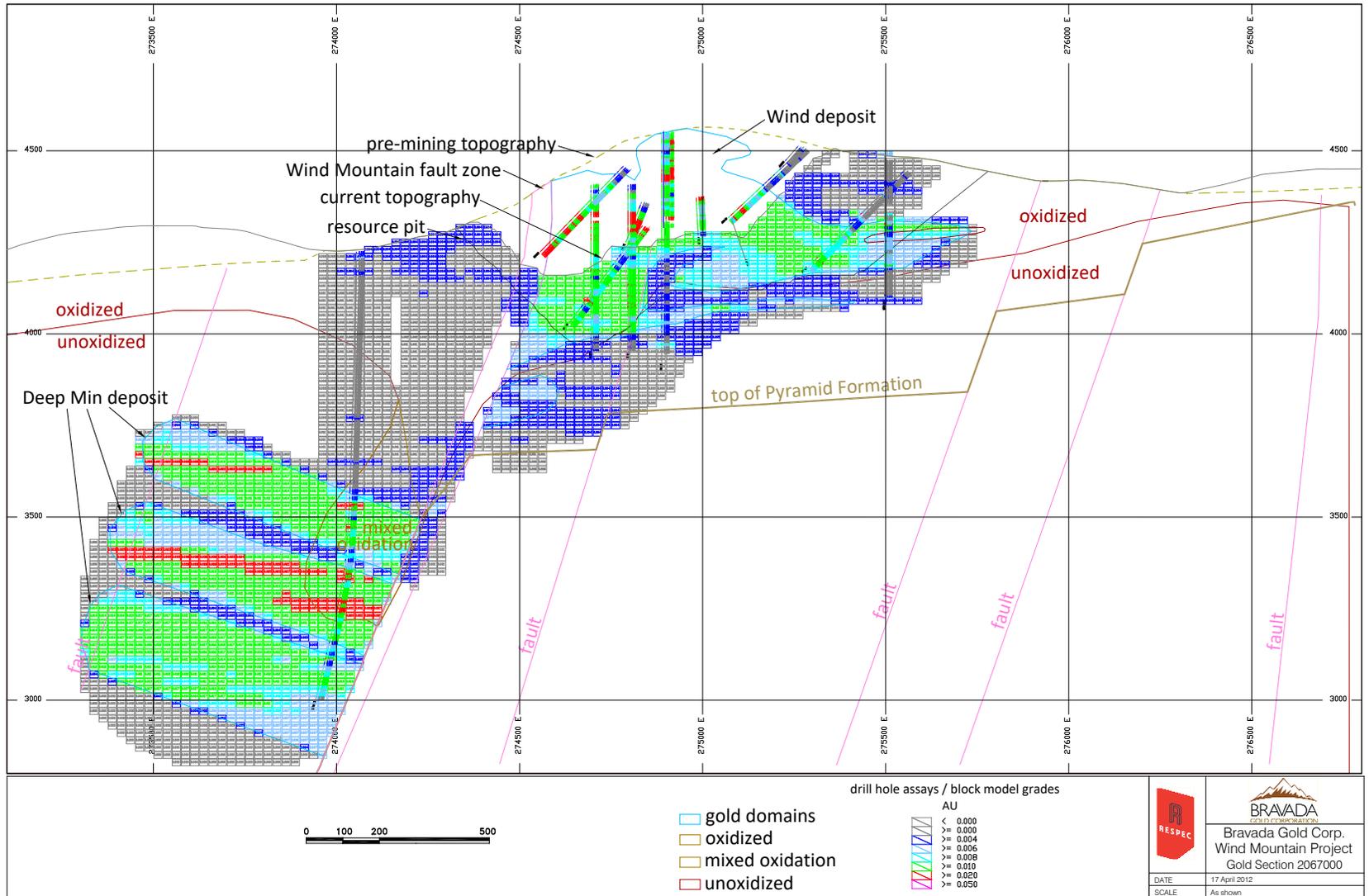


Figure 14-5. Wind Mountain Gold Block Model and Geology in Wind and Deep Min Deposits in Wind Pit Area -- Section 2067000N

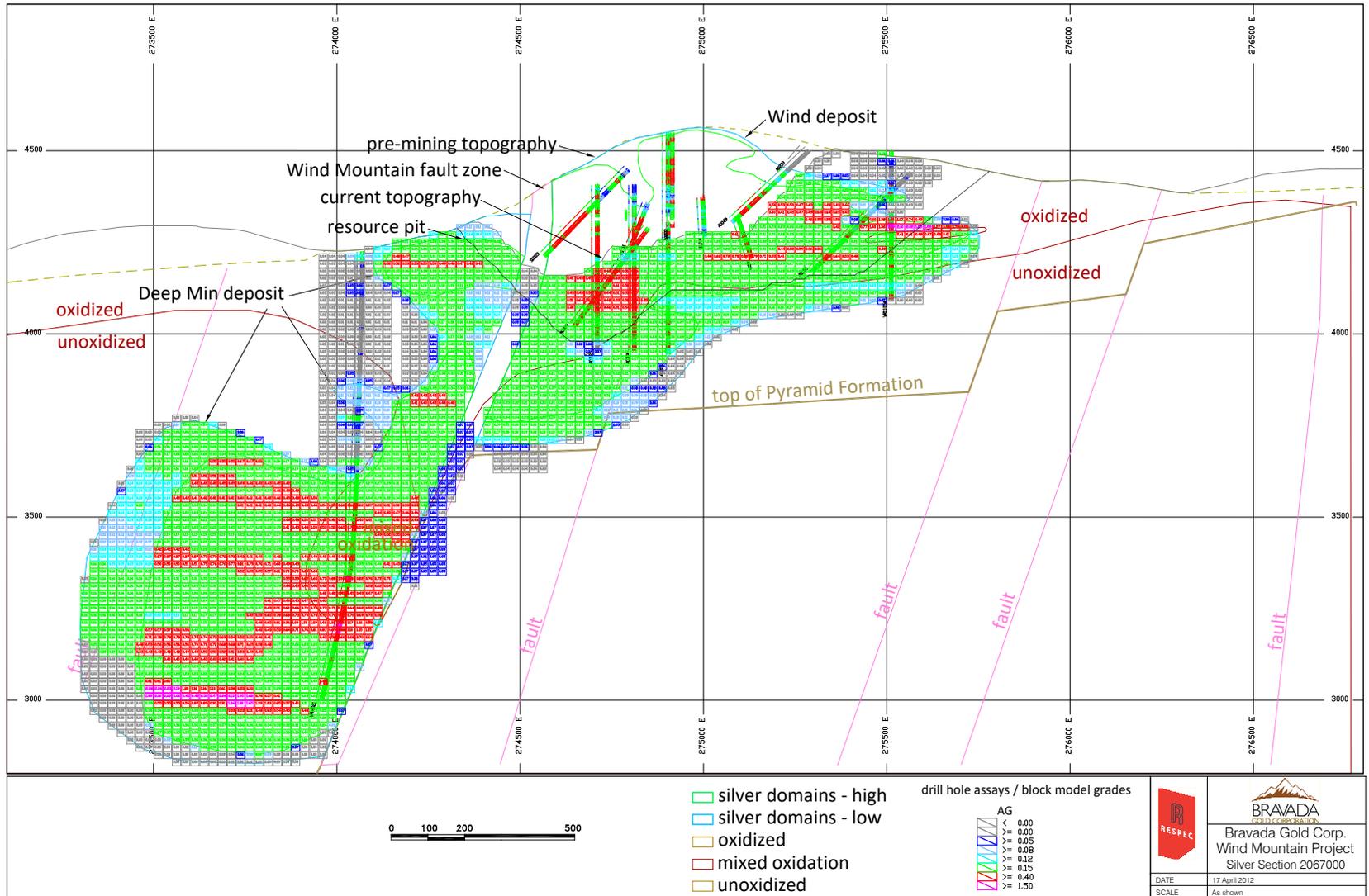


Figure 14-6. Wind Mountain Silver Block Model and Geology in Wind and Deep Min Deposits in Wind Pit Area -- Section 2067000N

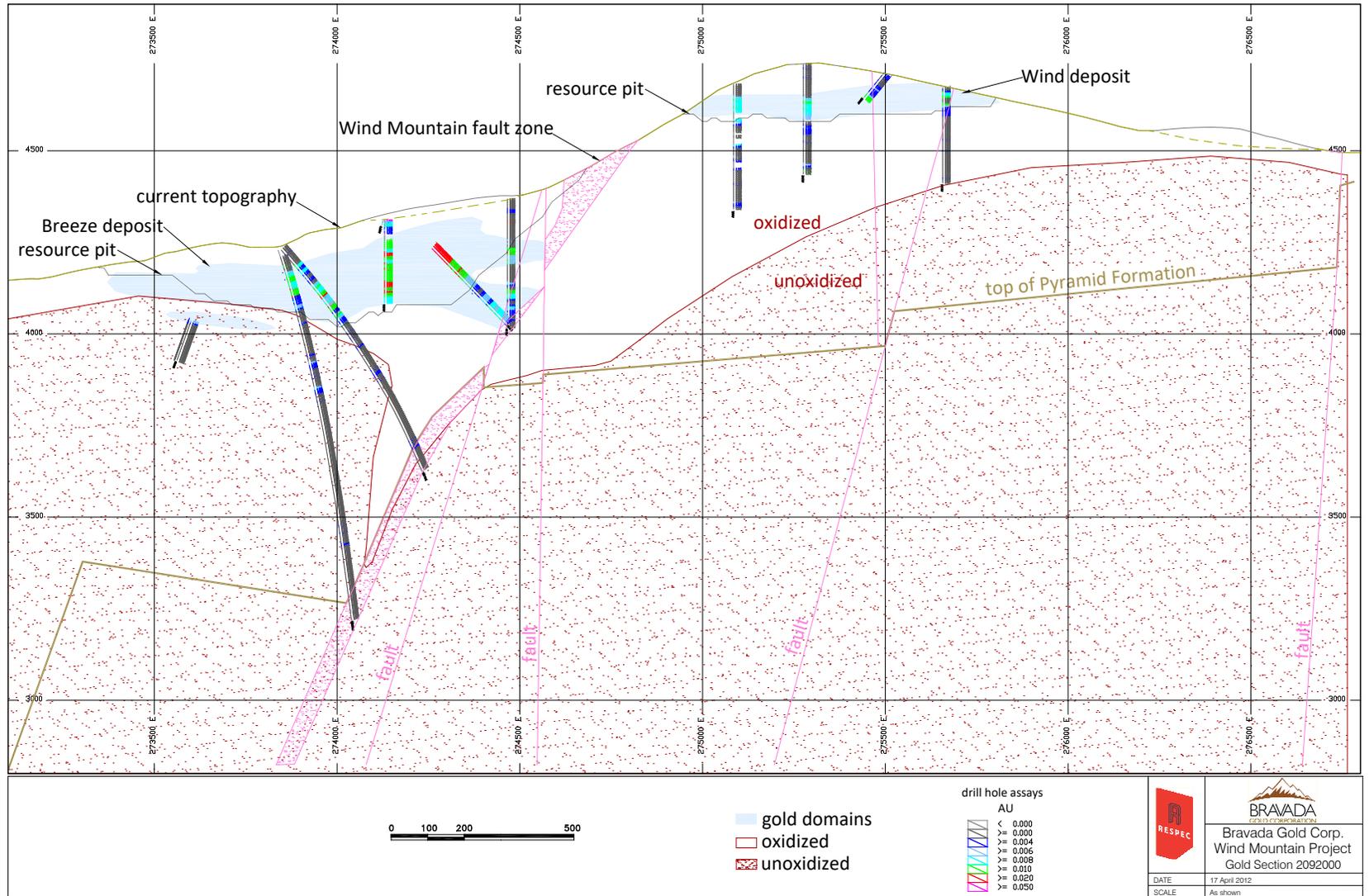


Figure 14-7. Wind Mountain Gold Block Model and Geology in Wind and Breeze Deposits Between Wind and Breeze Pit Areas -- Section 2069200N

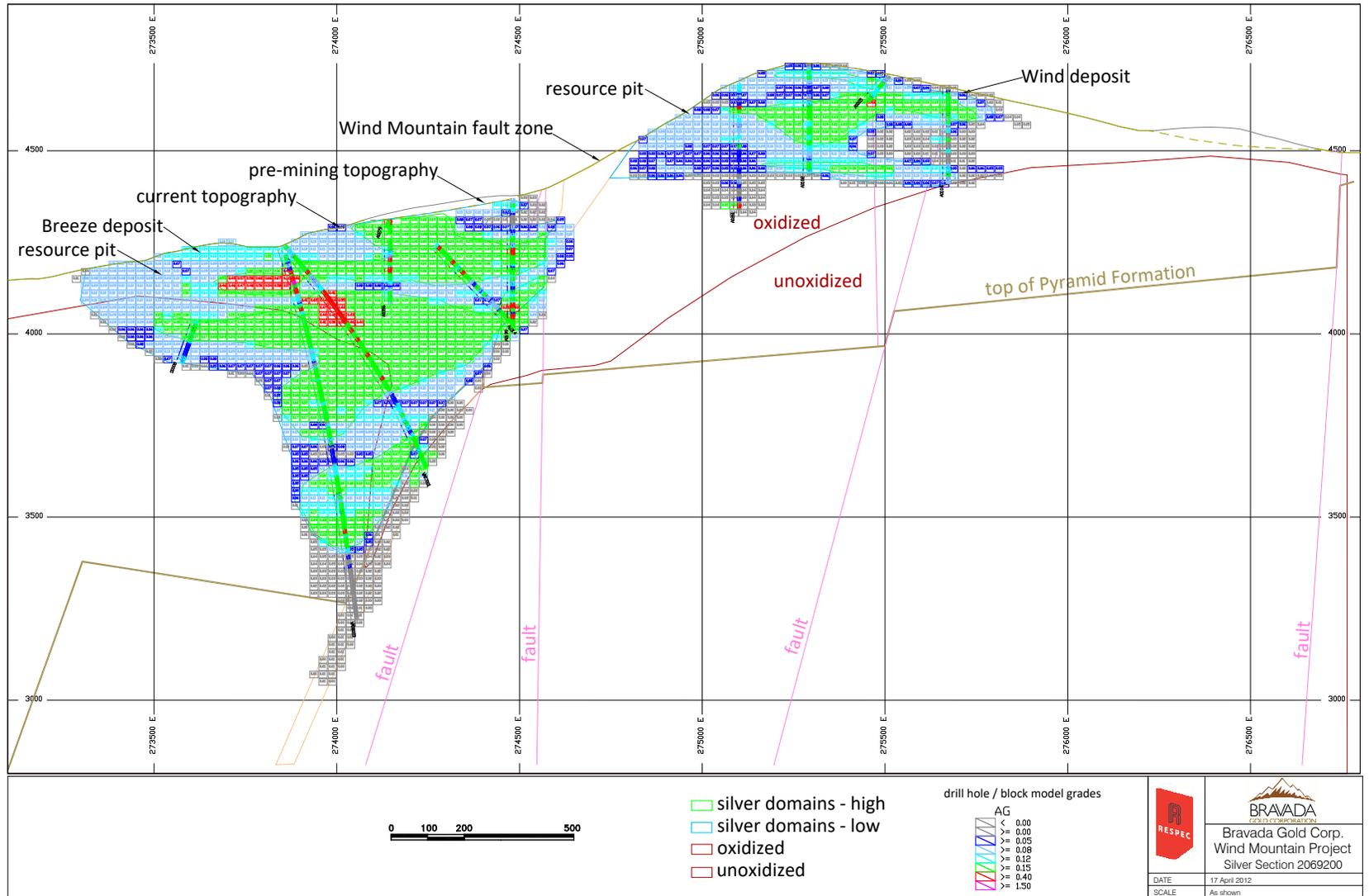


Figure 14-8. Wind Mountain Silver Block Model and Geology in Wind and Breeze Deposits Between Wind and Breeze Pit Areas -- Section 2069200N

#### 14.2.7 DISCUSSION OF THE WIND MOUNTAIN RESOURCE

In general, mineralization is well behaved and predictable at the Wind Mountain project, and assay data and geologic interpretations have provided reasonable support for the metal domain model and estimate. The history of successful mining and precious metals extraction from the deposits provides confidence in the assay data and model in areas not yet exploited. Densities calculated from reported production and the volumes of mined material, dumps and leach pads also compensates for the lack of density data. However, analytical procedures are undocumented for much of the historical drilling, which lowers confidence in pre-Fortune River/Bravada drill-hole data. Assaying techniques for silver have varied over the exploration history of the project, and a strong bias between the different methods imparts some uncertainties in the silver data. Other issues that have reduced confidence in the model and supporting assay data include minimal core drilling to test RC drilling results and a lack of QA/QC data for historical drilling. The limited distribution of cyanide-soluble data prevents proper definition of spatial variability of gold and silver recoveries.

Since the 2012 model and estimated resources were reported, 42 holes were drilled in and around the Wind, Breeze and Deep Min deposits. Data for these holes have been incorporated into the current resource model, primarily by modification of the gold and silver domains with the newer information. Overall, minor, incremental changes to the domains were made, and mineral resources were impacted only locally. In summary, the 42 new drill holes provided reasonable confirmation of the 2012 interpreted domains.

The single hole drilled in the vicinity of the Wind pit caused only minor changes to domains. Nearly half of the new drilling targeted the flat-lying mineralization from the Deep Min deposit northward to the Breeze pit, within the hanging wall of the Wind Mountain fault. Grade and thickness of domains were generally confirmed, with localized increases and decreases in both. In one location, a gold domain was extended about 300ft horizontally. Hole WM21-114, drilled at the south end of the Breeze deposit, caused the most change to domain polygons although the overall volume difference was not material. Silver domains were modified more than gold domains overall, however, the changes were similarly localized, and the silver model was generally confirmed.

The remainder of the 42 new drill holes tested exploration targets outside the main Wind, Breeze and Deep Min deposit areas. One group of new holes that targeted potential feeder mineralization south of the Wind pit intercepted elevated silver values over a relatively broad area, which allowed for expanded silver domains. However, only minimal gold was associated with the silver, and the total metal value is likely not high enough to be considered extractable under current economic conditions.

Bravada has drilled three additional RC holes in 2022, WM22-120 to 122, that post-date the effective date of the drill-hole database. The three holes were drilled about 1400ft south-southeast of the Wind pit at the southern end of the modeled area. RESPEC considered the potential effect of the holes on the model and determined that the new data would cause slight modifications, and possibly some additions, to gold and silver domains. However, due to the low gold grades intercepted, the mineralization in the area would remain far outside the optimized pit.

Besides the addition of 42 new drill-holes, the primary difference between the 2012 and 2022 models and estimates is that the current 2022 reported Measured and Indicated resources were constrained within an optimized pit, whereas the 2012 resources were not. The change in reporting criteria was necessary in order to comply with more modern regulatory guidelines. As a result, the 2022 reported resources are lower than those reported in 2012 by about 30%. However, the combined Measured and Indicated resources within (reported) and outside (unreported) the optimized pit in the new 2022 model did not change significantly. Tons and gold ounces in the unconstrained 2022 model decreased by 0.7% and 0.4%, respectively, and silver ounces increased by 0.3% compared to the 2012 model.

Another small change resulting from the addition of the 42 new drill holes was the conversion of some Inferred material to Indicated classification. In the unconstrained 2022 model, Indicated tons and gold ounces increased by about 2% each relative to the 2012 unconstrained model. Inferred tons and ounces decreased by 4% to 5.5%.

Noble and Ranta (2007) built a blasthole grade block model for gold and silver using ordinary kriging with variogram inputs. Blasthole grade estimation was limited to the area with a 25ft envelope of the blasthole drilling. A constant bench height of 25ft was used in all areas, including above the 4,480ft elevation where the mined bench heights in the Wind pit were 20 feet.

RESPEC compared tons, grade and ounces from the 2012 model to a production blasthole model generated by Noble and Ranta in 2007. Table 14-17 summarizes the results of the comparisons at 0.010oz Au/ton and 0.005oz Au/ton cutoff grades. The comparison between the 2012 estimate and the blasthole model is within 5% for tons, grade and ounces of gold. However, the differences are significant for silver, with the blasthole model grade and ounces substantially higher than the 2012 model by around 40%. Noble and Ranta (2007) noted similar differences between their 2007 resource model and their blasthole model. Also, silver grades in blastholes were significantly higher in blastholes relative to exploration drill holes in a study performed by Noble and Ranta (2007), as shown on Figure 11-1 and Figure 11-2 in Section 11.2.1. The cause of the differences between silver grades in exploration holes, blastholes and resource models is not understood, and the discrepancies represent a risk, in that the silver ounces predicted in the current model may not be encountered in future mining. Further study of the issue is warranted.

Table 14-17 Comparison Between Noble and Ranta's 2007 Blasthole Model and RESPEC's 2012 Resource Estimate

Cutoff oz Au/ton	Cutoff 0.005oz Au/ton				
	Tons	oz Au/ton	oz Ag/ton	oz Au	oz Ag
2012 estimate	29,325,518	0.015	0.32	483,541	9,494,598
	-5%	-9%	-38%	-3%	-40%
Blastholes	30,746,387	0.016	0.52	498,521	15,898,090
Cutoff oz Au/ton	Cutoff 0.010oz Au/ton				
	Tons	oz Au/ton	oz Ag/ton	oz Au	oz Ag
2012 estimate	24,589,061	0.018	0.34	449,959	8,472,976
	4%	-4%	-42%	1%	-39%
Blastholes	23,615,876	0.019	0.59	444,572	13,874,543

Because the number of drill holes added for the 2022 model update was relatively small, this exercise was not replicated.

#### 14.2.8 PRODUCTION DATA VERSUS NOBLE AND RANTA (2007) BLASTHOLE MODEL

A full reconciliation of the differences between historical production from the open pit and Noble and Ranta's 2007 blasthole model is not possible, although a few observations can be made. Review of mine records for 1991-1992 suggests that the production cutoff grade may have been lower than 0.01oz Au/ton, which would account for higher production tonnages compared to those of the blasthole model. An additional difference between the blasthole model and production is that 2.0 million tons of material with a high clay content, which averaged 0.013oz Au/ton, was hauled to waste pads rather than the crusher or heap leach pads. It was noted by Noble and Ranta (2007) that the blasthole model tonnage was 26.7 million tons with a grade of 0.017oz Au/ton, which was virtually the same as the reported production plus the discarded clay material.

### 14.3 RESOURCE POTENTIAL OF EXISTING HEAP LEACH PADS AND WASTE DUMPS

In addition to the estimated resources reported in section 14.2.6, there is potential to quantify resources in existing heap leach pads and waste dumps. However, sampling is not yet sufficiently dense, and further test work is needed to determine whether remaining gold and silver are recoverable from the material. Therefore, any metal contained in leach pads and dumps is not considered reportable as resources but does represent an opportunity to add to the Wind Mountain project inventory with additional work.

According to Noble and Ranta (2007), based on production records, the existing heap leach pads at Wind Mountain contain 24.6 million tons of material. Since previous metallurgical testing consistently showed that gold recovery averaged less than 30% for particle sizes above one inch, there may be residual gold in portions of the heap leach pads that could be extracted by reprocessing selected material. The quantity and grade of the potentially gold-bearing material is unknown and can only be established through systematic sampling and testing of the heap leach pads.

According to Noble and Ranta (2007), the waste dumps at Wind Mountain are estimated to contain 10.6 million tons of material. Based on the production history and more recent drilling and sampling, the waste dumps could contain material at potentially economic grades. For example, hole WM07012 intersected 25ft that averaged 0.024oz Au/ton in the Breeze dump. To date, the following work has been done that could be used to preliminarily evaluate the potential of the waste dumps:

- / Breeze dump: 12 surface samples, one trench, and five RC holes;
- / West central dump: 11 surface samples;
- / South dump: 32 surface samples, one trench, one RC hole, and two bulk met samples; and
- / East dump: no sampling.

However, much additional drilling, sampling and metallurgical test work would be required to delineate and evaluate the economic potential of the waste dumps before any resources could be added to the Wind Mountain project.



## 15.0 MINERAL RESERVE ESTIMATION

No Reserves have been estimated for this report.

## 16.0 MINING METHODS

RESPEC has completed a PEA for the Breeze and Wind deposits which anticipates mining using conventional open pit truck and loader methods. This assessment assumes that waste material would be loaded into 70-ton haul trucks and hauled to waste rock facilities. Leach material would be mined from the pit and placed on a heap leach pad for leaching of gold and silver. RESPEC assessed the economic impact of different gold cut-off grades using run-of-mine ("ROM") Leach processing and space available for heap leach pad west of the ultimate pit limits. Ultimate pit limits were developed using pit optimization techniques, and preliminary pit designs have been created. Production schedules have been developed using the resources from these pit designs.

The following sections discuss the methodology used to define the pit designs, waste dump designs, and the production schedule with relation to the PEA.

### 16.1 PIT OPTIMIZATION

Pit optimization was completed using Whittle software (version 7.3). Economic and geometrical parameters were provided to Whittle to complete the work. The economic parameters were developed for seven different mining/processing scenarios based on one processing method, throughput rate, and heap leach capacity.

ROM Leaching at a rate of 20,000 tons per day was considered in the processing method.

Whittle pit shells for varied metal prices and gold cut-off grades were used to determine pit phases and ultimate pits for each scenario. Whittle was then used to generate production schedules and preliminary cash-flows for each scenario.

#### 16.1.1 ECONOMIC PARAMETERS

Economic parameters were developed for each scenario and included mining costs, process costs, General and Administrative ("G&A") costs, and metallurgical recoveries. These are shown in Table 16-1.

Table 16-1 Economic Parameters

Run of Mine Leaching	20,000 TPD		
Mining Cost	\$ 2.75	\$/t Mined	
Process Cost	\$ 3.17	\$/t Processed	
G&A Cost per Year	\$ 4.00	Million \$/year	
Throughput	20,000	TPD	
Days per Year	350	Days	
G&A Cost per Ton	\$ 0.57	\$/t Processed	
NSR Royalty	1%		

	Au	Ag	
Recovery - Ox	62%	15%	
Recovery - Mx	20%	0%	
Recovery - Su	15%	0%	
Selling Cost	\$ 3.00	\$ 1.50	\$/Oz
Price	\$ 1,750	\$ 21.00	\$/Oz

The 20,000 ton per day throughput scenario assumes contract mining at a cost to similar projects in Nevada. All the scenarios assumed that leaching would be done west of the Breeze and Wind pits.

Process costs were assumed based on processing models provided by Woods Process Services, LLC (Woods Process) estimation services.

General and Administrative costs were based on personnel, supplies, and other costs that would be incurred in support of the operation. No corporate support is included.

Recoveries have been assumed based on historical recoveries and current metallurgical testwork provided by Woods Process.

While various metal prices were considered in the pit optimizations, base metal prices of \$1,750 per ounce of gold and \$21.00 per ounce of silver were used. These prices are near the three-year rolling average of metal prices based on Kitco data.

### 16.1.2 GEOMETRICAL PARAMETERS

Geometrical parameters will often include property and royalty boundaries as well as pit slope parameters. As the mineral resources are all within current property boundaries, none were considered as a restriction to the pit optimization. A single royalty factor of 1% was imposed on the entire Whittle model assuming that royalties are bought down, and no additional boundary was imposed for separation of royalties at the time of pit optimization. While this does not fully account for the Fuller royalty, the resources on the Fuller leased claims are minimal, and the current applicable royalty payments are minimal because significant advanced minimum royalty payments have been made to date.

There are no recent pit slope stability studies, and pit slopes were assumed to be a constant 45° in all sectors. Previous Breeze and Wind pits do contain overall angles more than 50° based on fly-over topography measurements. Thus, RESPEC considers these 45-degree slopes to be conservative.

### 16.1.3 PIT OPTIMIZATION RESULTS

Pit optimizations used both Indicated and Inferred resources. Note that Canadian NI 43-101 guidelines define a PEA as follows:

*A preliminary economic assessment is preliminary in nature, and it includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied that would enable them to be classified as mineral reserves, and there is no certainty that the preliminary assessment will be realized.*

Pit optimizations were run to determine appropriate pit phasing and ultimate limits for each scenario. Whittle was then used to generate preliminary production and cash-flows for each scenario.

Optimized pits were generated for various metal prices ranging from \$500/oz Au to \$2,000/oz Au using \$25/oz Au increments. Silver metal prices were kept at a constant ratio with gold and ranged from \$6.00/oz Ag to \$24.00/oz Ag in increments of \$0.025/oz Ag increments. Results of the 20,000 Tpd ROM scenario pit optimization are shown in Table 16-2 in \$50/oz Au increments. The \$1,750/oz Au result is highlighted in the table as the base case pit. Figure 16-1 shows the Whittle results graphically.

Table 16-2 31 Pit Optimization Results – 20,000 Tpd ROM

Pit	Au Price	Ag Price	K Tons	Leach				Waste	Total	Strip	LOM	
				Oz Au/ton	K Ozs Au	Oz Ag/ton	K Ozs Ag					K Ozs AuEq
1	\$ 500.00	\$ 6.00	131	0.027	4	0.319	42	4	6	137	0.04	0.02
3	\$ 550.00	\$ 6.60	241	0.023	6	0.399	96	6	10	250	0.04	0.03
5	\$ 600.00	\$ 7.20	437	0.021	9	0.388	169	10	21	458	0.05	0.06
7	\$ 650.00	\$ 7.80	684	0.020	13	0.368	251	14	49	733	0.07	0.10
9	\$ 700.00	\$ 8.40	981	0.018	18	0.347	340	19	61	1,042	0.06	0.14
11	\$ 750.00	\$ 9.00	2,119	0.019	40	0.331	702	42	1,061	3,179	0.50	0.30
13	\$ 800.00	\$ 9.60	2,916	0.018	51	0.319	929	54	1,248	4,164	0.43	0.42
15	\$ 850.00	\$ 10.20	4,263	0.017	71	0.307	1,310	74	1,767	6,029	0.41	0.61
17	\$ 900.00	\$ 10.80	5,563	0.016	88	0.303	1,685	93	2,272	7,835	0.41	0.79
19	\$ 950.00	\$ 11.40	7,933	0.015	116	0.297	2,353	123	2,787	10,720	0.35	1.13
21	\$ 1,000.00	\$ 12.00	10,250	0.014	145	0.297	3,049	153	3,940	14,190	0.38	1.46
23	\$ 1,050.00	\$ 12.60	13,729	0.014	186	0.287	3,944	197	5,529	19,258	0.40	1.96
25	\$ 1,100.00	\$ 13.20	16,430	0.013	214	0.286	4,698	228	6,427	22,856	0.39	2.35
27	\$ 1,150.00	\$ 13.80	19,541	0.013	246	0.279	5,454	262	7,608	27,149	0.39	2.79
29	\$ 1,200.00	\$ 14.40	23,344	0.012	283	0.272	6,344	302	8,834	32,178	0.38	3.33
31	\$ 1,250.00	\$ 15.00	26,110	0.012	309	0.269	7,027	329	9,786	35,897	0.37	3.73
33	\$ 1,300.00	\$ 15.60	28,847	0.012	333	0.266	7,659	355	10,613	39,460	0.37	4.12
35	\$ 1,350.00	\$ 16.20	31,195	0.011	351	0.263	8,208	375	11,048	42,243	0.35	4.46
37	\$ 1,400.00	\$ 16.80	35,580	0.011	387	0.258	9,167	413	12,289	47,869	0.35	5.08
39	\$ 1,450.00	\$ 17.40	40,347	0.010	418	0.250	10,093	447	11,602	51,949	0.29	5.76
41	\$ 1,500.00	\$ 18.00	45,236	0.010	453	0.242	10,930	484	12,228	57,464	0.27	6.46
43	\$ 1,550.00	\$ 18.60	49,001	0.010	480	0.240	11,765	515	13,550	62,552	0.28	7.00
45	\$ 1,600.00	\$ 19.20	52,093	0.010	503	0.239	12,476	539	14,721	66,814	0.28	7.44
47	\$ 1,650.00	\$ 19.80	55,114	0.010	524	0.238	13,138	562	15,814	70,928	0.29	7.87
49	\$ 1,700.00	\$ 20.40	57,208	0.009	537	0.237	13,559	577	16,382	73,590	0.29	8.17
51	\$ 1,750.00	\$ 21.00	59,617	0.009	552	0.236	14,076	593	16,977	76,593	0.28	8.52
53	\$ 1,800.00	\$ 21.60	62,260	0.009	568	0.235	14,625	610	17,541	79,801	0.28	8.89
55	\$ 1,850.00	\$ 22.20	65,557	0.009	585	0.233	15,245	629	17,211	82,768	0.26	9.37
57	\$ 1,900.00	\$ 22.80	70,105	0.009	607	0.229	16,046	654	16,799	86,904	0.24	10.01
59	\$ 1,950.00	\$ 23.40	73,936	0.008	625	0.225	16,603	673	16,154	90,091	0.22	10.56
61	\$ 2,000.00	\$ 24.00	78,879	0.008	651	0.220	17,369	701	16,810	95,689	0.21	11.27

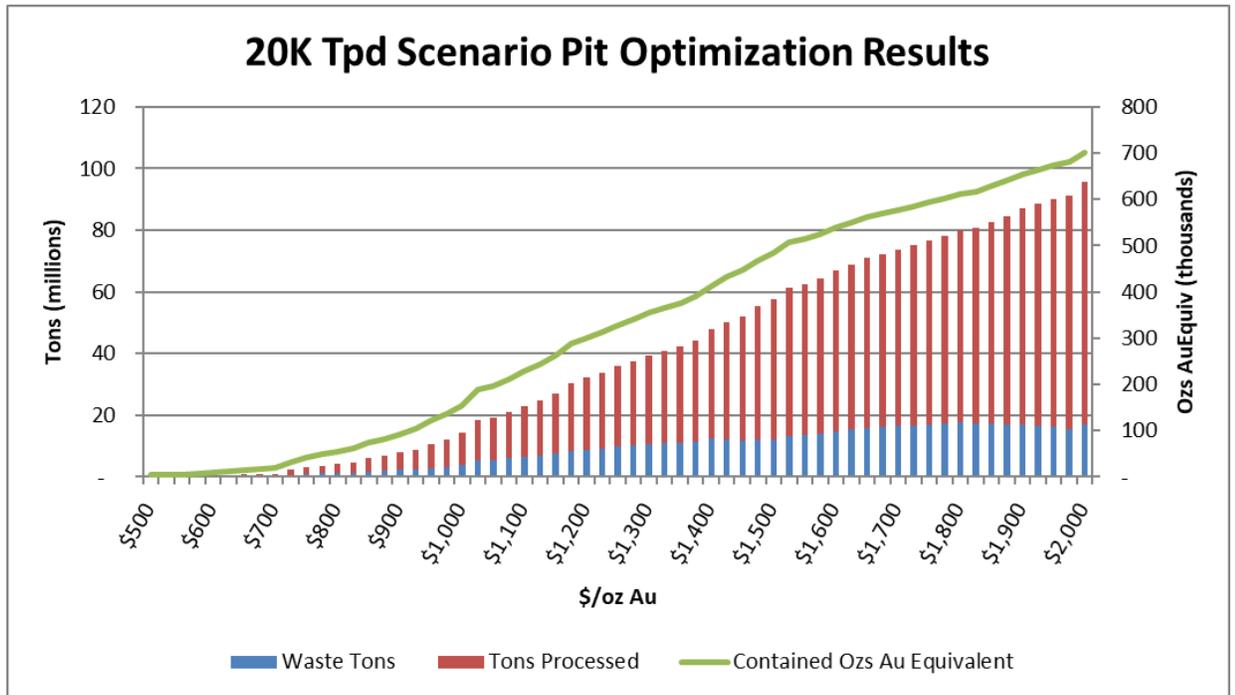


Figure 16-1. Pit Optimization Results - 20,000 Tpd ROM

Pit optimizations were limited to approximately 30 million tons of leachable material, which is the amount that can be contained in a leach pad site adjacent to the deposit. This is intended to reduce haulage costs and the capital of a larger pad. To determine the best value to be leached from the deposit, pit optimizations were run using various cutoff grades. The resulting discounted operating cash-flows were modeled for each of the pits. The best scenario was determined to be the 0.006 Oz Au/ton minimum grade based on the parameters used as shown in Table 16-1. As the mixed material has a higher economic cutoff grade, the 0.006 only impacted the oxide material.

Table 16-3 Minimum Grade Results – Best 30 Million Ton Discounted Operating Cash Flow

Scenario	Pit	K Tons	Leach				Waste K Tons	Total K Tons	Strip Ratio	Disc. Operating CF (M USD)			LOM Years
			Oz Au/ton	K Ozs Au	Oz Ag/ton	K Ozs Ag				Best	Specified	Worst	
0.005 oz/ton min grade	35	30,693	0.011	349	0.26	8,069	11,541	42,233	0.38	\$ 150.78	\$ 150.45	\$ 146.26	4.26
0.006 oz/ton min grade	36	30,018	0.012	349	0.27	7,998	13,215	43,233	0.44	\$ 149.85	\$ 149.54	\$ 145.41	4.17
0.007 oz/ton min grade	38	30,546	0.012	358	0.27	8,157	15,791	46,337	0.52	\$ 149.70	\$ 149.13	\$ 144.68	4.36
0.008 oz/ton min grade	46	30,068	0.012	363	0.27	8,120	21,183	51,250	0.70	\$ 144.26	\$ 143.87	\$ 138.84	4.30
0.009 oz/ton min grade	50	24,594	0.013	317	0.28	6,915	22,311	46,904	0.91	\$ 128.06	\$ 127.68	\$ 124.10	3.51
0.010 oz/ton min grade	50	18,134	0.014	255	0.29	5,330	19,926	38,059	1.10	\$ 108.84	\$ 108.42	\$ 106.66	2.59

The best scenario shown in Table 16-3 is the 0.006 Oz Au/ton cut-off grade based on the parameters used. This was used to guide the design of the ultimate pit.

## 16.2 PIT DESIGNS

Pit design was done based on the optimized pit shells for the 0.006 Oz Au/ton cut-off grade ROM scenario and provides access to the resources for equipment and personnel. The Breeze and Wind pits were designed as individual pits with no phasing. The Breeze pit design is shown in Figure 16-2, Wind pit design is shown in Figure 16-3, and the ultimate pit design for both Breeze and Wind is shown in Figure 16-4. The following sections discuss the parameters used to determine the resources inside of the pit designs.

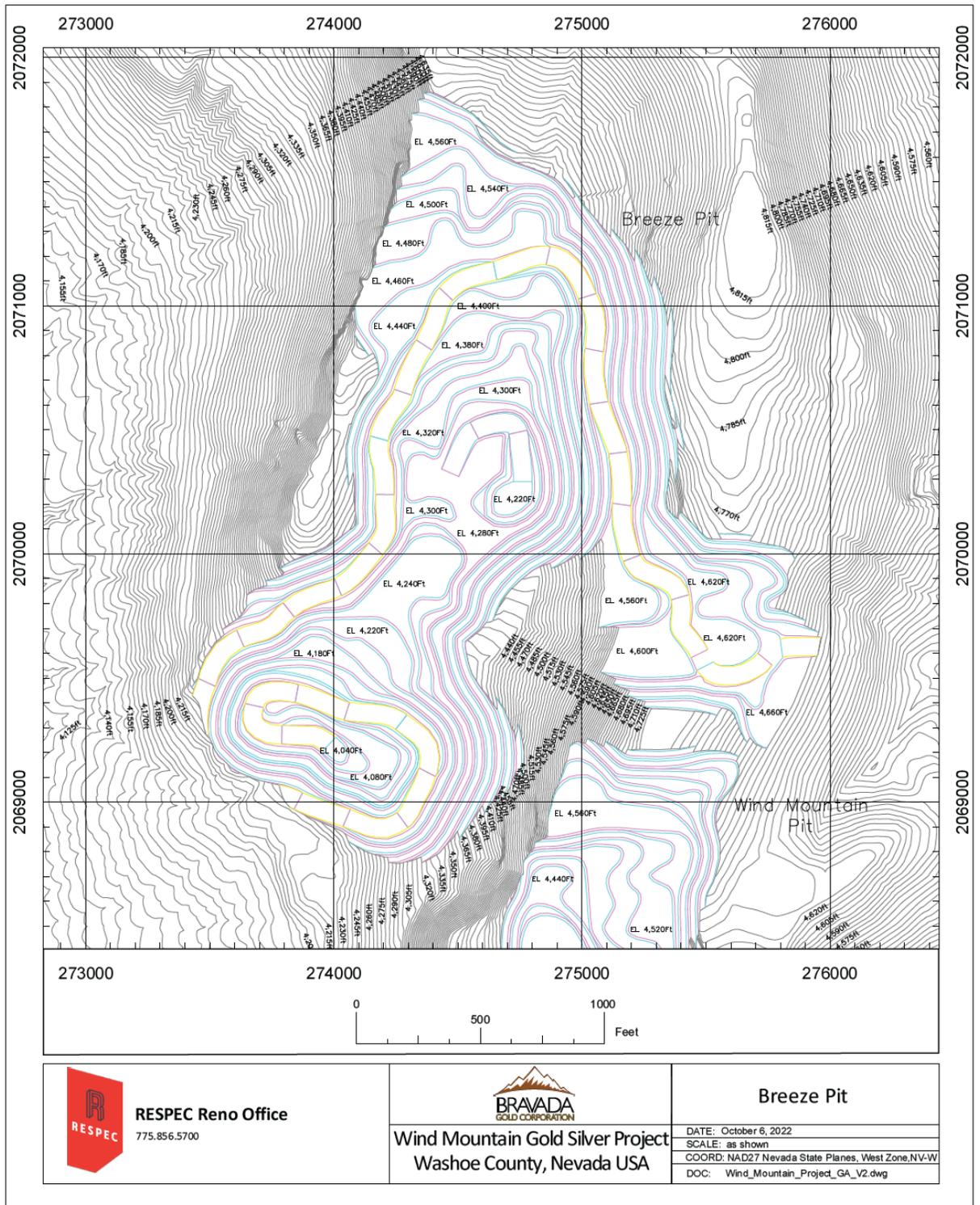


Figure 16-2. Breeze Pit Design

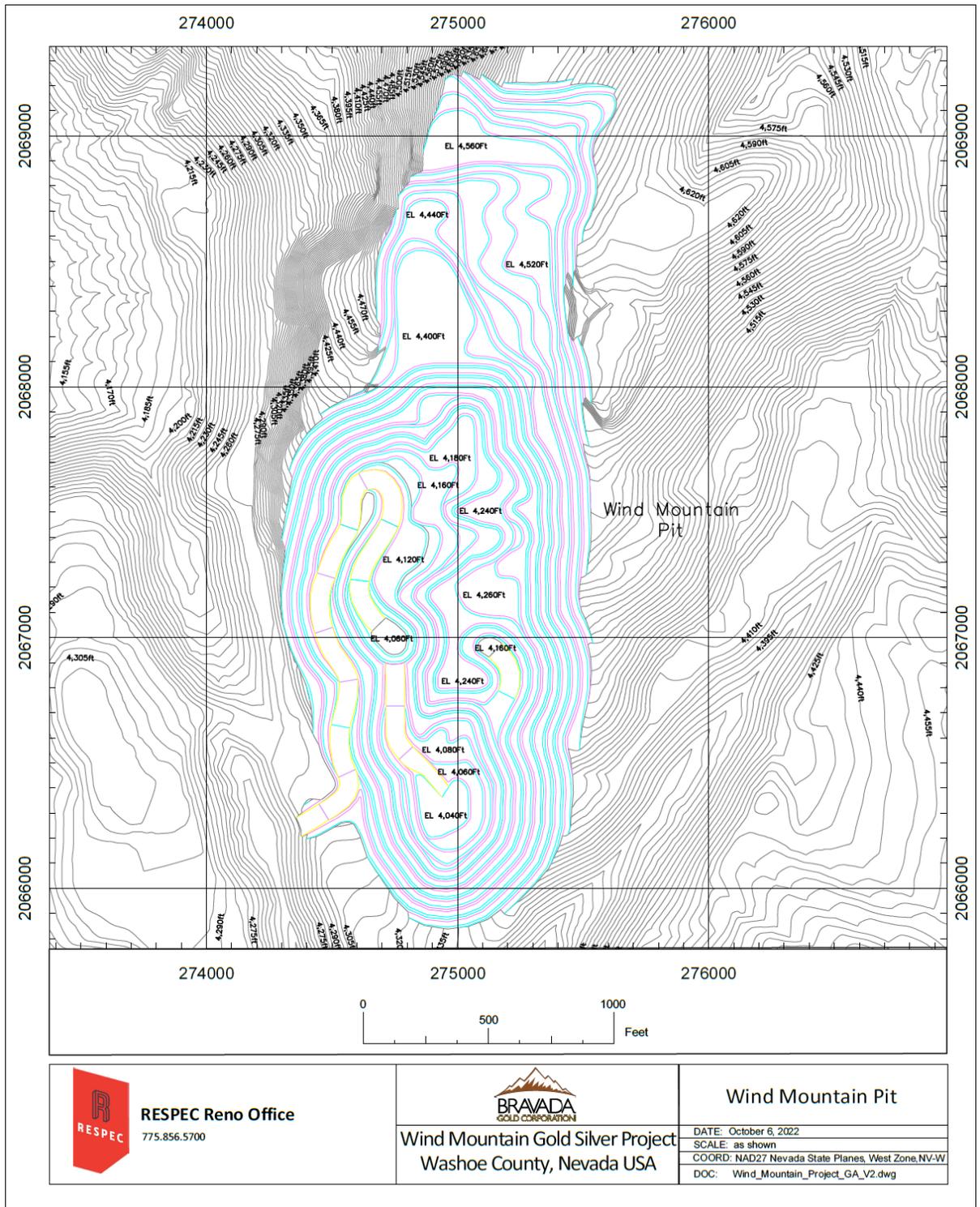


Figure 16-3. Wind Mountain Pit Design

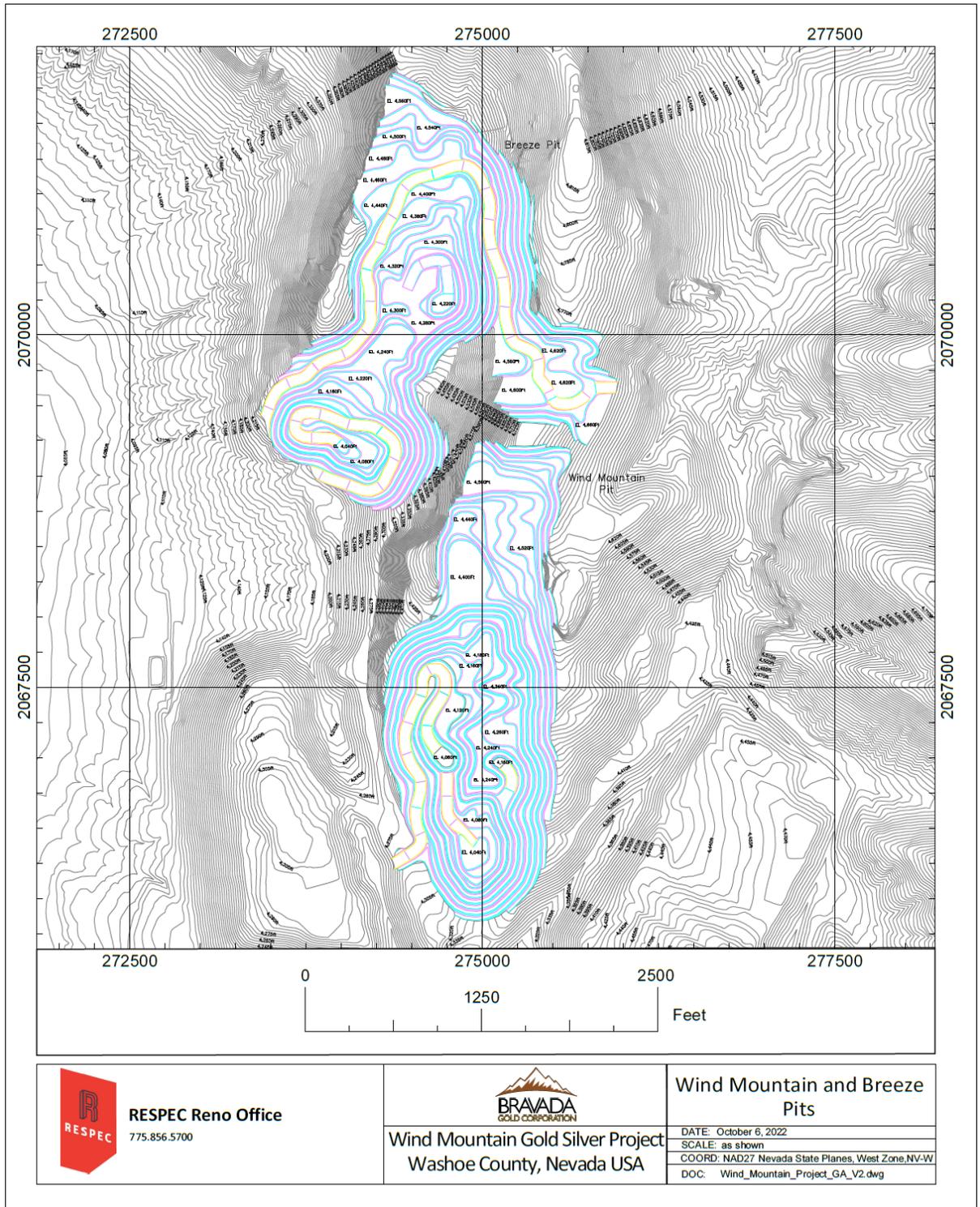


Figure 16-4. Breeze and Wind Mountain Ultimate Pit Designs

### 16.2.1 BENCH HEIGHT

A bench height of 20ft was used to reflect the block model bench height and the reach of equipment to be used in mining. This bench height will provide for reasonable selectivity during mining.

### 16.2.2 PIT DESIGN SLOPE PARAMETERS

While no definitive geotechnical study has been provided to RESPEC, it is evident that slopes of near 50° are possible based on observations of current pits. However, RESPEC has designed pits targeting an overall angle of 45° until such time that geotechnical studies can be completed.

Pit slopes use definition of height between catch benches, bench face angle, and catch bench width. Ore and most waste material will be mined on 20ft benches. Every other bench will have a catch bench 21ft wide. A bench face angle of 65° has been assumed, providing an inner-ramp slope of 45°. The slope design parameters are shown in Figure 16-5.

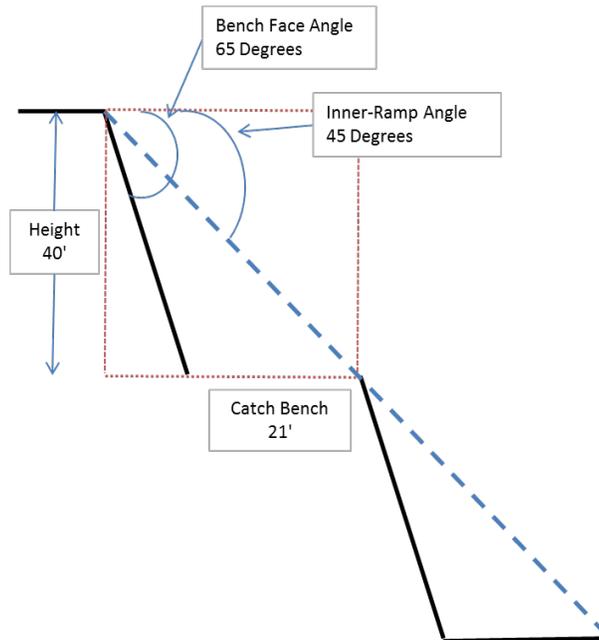


Figure 16-5. Pit Design Slope Parameters

### 16.2.3 HAUL ROADS

In-pit ramps and haul roads were designed to allow safe operation of haul trucks while allowing for two-way traffic. A ramp width of 75ft was used in the pit and allows for 3.5 times the running width of a 775F CAT truck and a safety berm of 13.17ft. Ramps use a maximum design gradient of 10%; however, some steeper sections may exist on the inside of curves for short distances.

### 16.2.4 CUTOFF GRADE

Cutoff grades were calculated based on gold values only. Internal and external cutoff grades were calculated for each material type as shown in Table 16-4. The internal cutoff grade excludes mining cost

and is the cutoff grade that would be used for operations. Whittle pit optimizations were based on economic value as opposed to cutoff grade.

Production scheduling used the internal cutoff grades as discussed in Section 16.1.3. Mixed material uses a 0.011 oz Au/ton cutoff grade while the oxide cutoff grade was elevated to a 0.006 oz Au/ton.

Table 16-4 Calculated Cutoff Grades (\$1,750 per Oz Au)

Au Cutoffs (oz Au/ton)		
	Internal	External
Oxide	0.003	0.006
Mixed	0.011	0.019
Unoxidized	0.014	N/A

*Minimum grade of 0.006 oz Au/ton used*

### 16.2.5 DILUTION

The resource block model is 25ft by 25ft by 20ft high and contains grades that are diluted to this block size. The equipment that has been selected will provide reasonable selectivity with respect to these block sizes. As the resource estimate has been diluted to the block size, RESPEC believes that appropriate dilution has been accounted for in the resource modeling and has not added any additional dilution factors.

### 16.2.6 IN-PIT RESOURCES

Resources inside of the final pit designs were calculated using Surpac software. Due to the higher cutoff grade and the low confidence in recovery used for unoxidized material and the nature of the low-grade deposit, unoxidized material inside of the pit was not used for processing in the production schedule and is scheduled as waste. The in-pit resources are shown in Table 16-5.

Table 16-5 In-Pit Resources and Associated Waste Material

	Indicated					Inferred					Waste	Total	Strip
	K Tons	Oz Au/ton	Oz Au	Oz Ag/ton	Oz Ag	K Tons	Oz Au/ton	Oz Au	Oz Ag/ton	Oz Ag	K Tons	K Tons	Ratio
Breeze Pit	14,879	0.012	185	0.266	3,957	821	0.009	7	0.156	128	11,064	26,765	0.70
Wind Pit	14,346	0.010	149	0.267	3,831	254	0.010	3	0.229	58	5,519	20,119	0.38
Total	29,225	0.011	334	0.267	7,789	1,075	0.009	10	0.173	186	16,584	46,884	0.55

Note that Canadian NI 43-101 guidelines define a PEA as follows:

*A preliminary economic assessment is preliminary in nature and it includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied that would enable them to be classified as mineral reserves, and there is no certainty that the preliminary assessment will be realized.*

## 16.3 MINE-WASTE FACILITIES

Three waste dumps were designed and are shown in the site-plan map in

Figure 18-1. The Breeze waste dump is located to the west of the Breeze pit and is used for the Breeze pit waste and some of the lower Wind pit waste. The other two waste dumps are located on the east side of the Breeze and Wind pit and are named Wind North and Wind South dumps.

The waste dumps were designed using an assumed angle of repose of 34°. The design was completed using 25ft lift-heights. Catch benches of 25ft were used on each lift providing an overall design slope of 2.5H:1V. This allows for final reclamation at the overall slope.

The total dump capacity is 20.9 million tons assuming a swell factor of 1.3 and a loose density of 0.055 tons per ft<sup>3</sup>. This is about 26% more than required for the PEA material that is identified as waste. The waste dump capacities are shown in Table 16-6 along with the capacity of the heap leach pad. The heap leach pad design is intended to contain 30 million tons of leach material.

Table 16-6 Waste Dump and Heap Leach Pad Capacities

	Cubic Feet (millions)	Tonnage (millions)
Breeze Dump	199.3	11.0
Wind North Dump	80.0	4.4
Wind South Dump	99.9	5.5
Total Dump Capacity	379.2	20.9
Heap Leach Pad Capacity	546.3	30.0

## 16.4 PRODUCTION SCHEDULING

Mine production scheduling was done using MineSched software. Scheduling targets the sending of 7.2 million tons of leach material per year to the leach pad. Constraints on tonnage mined per day and number of benches mined per period prohibited the mine from producing to full capacity during year 3 but allowed for a more realistic schedule.

Waste material was modeled as either fill waste or rock waste to estimate equipment requirements. Fill waste is material mined from the historical dumps. Rock waste is all other waste material mined is assumed to require drilling and blasting. Note that the PEA pit designs do not mine any material from the historic leach pads.

Material sent to the leach pad was modeled to reflect the oxidation, resource classification, and royalty region and used a 0.006, 0.009, and 0.012 Oz Au/ton cutoff grade for low-grade, medium-grade, and high-grade oxide leach material respectively. Mixed material used a single cutoff grade of 0.011 oz Au/ton. All unoxidized material was scheduled to the waste dumps.

The production schedule was created using monthly periods so that appropriate lag times for gold recovery could be used for the process production schedule. The schedule was then summarized in yearly periods as shown in Table 16-7. The "Pre-Prod" is used to represent pre-production. Note that some material is sent to the leach pad during pre-production. Low-grade material mined with pre-strip

waste would be sent to a contract crushing plant to create over-liner material. No metal production is attributed to this material until year 1.

Table 16-7 Mine Production Schedule

	Units	Pre-Prod	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Total	
<b>Breeze Pit</b>	<b>Total Leach Mined</b>	K Tons	1,355	6,533	6,484	1,329	-	-	-	15,701
		Ozs Au/t	0.010	0.012	0.013	0.011	-	-	-	0.012
		K Ozs Au	14	77	86	15	-	-	-	192
		Ozs Ag/t	0.202	0.271	0.264	0.248	-	-	-	0.260
		K Ozs Ag	274	1,772	1,710	329	-	-	-	4,085
	<b>Total Waste</b>	K Tons	1,499	6,818	2,656	91	-	-	-	11,064
	<b>Total Mined</b>	K Tons	2,854	13,351	9,140	1,420	-	-	-	26,765
<b>Strip Ratio</b>		1.11	1.04	0.41	0.07				0.70	
<b>Wind Pit</b>	<b>Total Leach Mined</b>	K Tons	-	-	716	5,789	7,200	895	-	14,600
		Ozs Au/t	-	-	0.009	0.011	0.010	0.011	-	0.010
		K Ozs Au	-	-	7	65	70	10	-	152
		Ozs Ag/t	-	-	0.129	0.261	0.267	0.409	-	0.266
		K Ozs Ag	-	-	92	1,509	1,921	366	-	3,889
	<b>Total Waste</b>	K Tons	-	-	800	2,587	2,060	72	-	5,519
	<b>Total Mined</b>	K Tons	-	-	1,516	8,376	9,260	967	-	20,119
<b>Strip Ratio</b>				1.12	0.45	0.29	0.08		0.38	
<b>Total PEA Pits</b>	<b>Total Leach Mined</b>	K Tons	1,355	6,533	7,200	7,118	7,200	895	-	30,300
		Ozs Au/t	0.010	0.012	0.013	0.011	0.010	0.011	-	0.011
		K Ozs Au	14	77	93	80	70	10	-	344
		Ozs Ag/t	0.202	0.271	0.250	0.258	0.267	0.409	-	0.263
		K Ozs Ag	274	1,772	1,802	1,838	1,921	366	-	7,975
	<b>Total Waste</b>	K Tons	1,499	6,818	3,456	2,678	2,060	72	-	16,584
	<b>Total Mined</b>	K Tons	2,854	13,351	10,656	9,795	9,260	967	-	46,884
<b>Strip Ratio</b>		1.11	1.04	0.48	0.38	0.29	0.08		0.55	

#### 16.4.1 MINE EQUIPMENT REQUIREMENTS

The PEA mining is based on contract mining, and equipment requirements will be the responsibility of the contractor to maintain production. However, for the purpose of estimating the equipment and personnel requirements, 70-ton CAT 775F trucks and CAT 990H wheeled loaders were assumed to be used as the primary production equipment. During the mine life, three loaders and up to seven haul trucks will be required.

Drilling for blasting operations will be done using crawler type blasthole drills. Six-inch hole diameters have been used for design purposes, and one blasthole drill will be required during full production.

Support equipment will be used to maintain roads, pit benches, and dumping areas clean and safe. Support equipment will include dozers, graders, water trucks, excavators, and other such equipment.

#### 16.4.2 MINE OPERATIONS PERSONNEL

Mine operations personnel was estimated based on the production schedule and equipment requirements assuming that the mining would be done by a contractor. Mine operations personnel



attributed to the Wind Mountain mine is estimated to be 14 people for oversight of mining operations. This includes a Mine Superintendent, mine labor, a clerk, engineering staff, and geology staff. The mine personnel would oversee the contractor, providing planning for the operation, and ore control.

The contractor personnel were estimated based on management and operators. A 24 hour per day / 7 day a week operation was assumed using four crews working 12 hours per day rotating with four days on and four days off. The total number of people supplied by the mining contractor is estimated to be 75 on average.

## 17.0 RECOVERY METHODS

It is envisioned that metal recovery will be done using conventional ROM Cyanidation Heap Leaching followed by Merrill-Crowe solution processing for the recovery of precious metals. The following sections discuss development of the process design basis, process flow diagrams, equipment lists and sizing.

### 17.1 HIGH LEVEL PROCESS DESIGN CRITERIA

The high-level process design criteria are provided in the following table. These variables were used to develop the process. Primary criteria are the daily production rate of 20 ktpd, metal head grades of 0.011 opt Au and 0.254 opt Ag and metal recoveries of 62 percent and 15 percent for gold and silver respectively.

Table 17-1 High Level Process Design Criteria

Variable	Units	Parameter	Source
Resource Tons of Oxide Material	t	44,272,000	RES. EST.
Annual Processing Rate	tpa	7,300,000	RES. EST.
Operating Days per Year	days	365	RES. EST.
Tonnage to Heap Leach per Day	tpd	20,000	RES. EST.
Operating Hours Per Day	days	24	JLW
Heap Stacking Rate	tph	833	Calculation
Au Grade	opt	0.011	RES. EST.
Ag Grade	opt	0.254	RES. EST.
Au Recovery (ore to precipitate)	%	62.0%	Test Work/ Historical Ops
Ag Recovery (ore to precipitate)	%	15.0%	RES. EST.
Au Produced per Year	oz/a	49,786	RES. EST.
Ag Produced per Year	oz/a	277,692	RES. EST.
Cyanide Consumption	lb/t	1.0	Test Work
Lime Addition to Ore	lb/t	3.0	Test Work
Stacking Height	ft	27.0	JLW
Application Rate	gpm/sqft	0.004	JLW
Leach Cycle	days	90.0	JLW
Total Heap Cycle	days	150.0	JLW

Note that the final tonnage mined in the PEA is less than the tonnage in Table 17-1 due to limiting the tonnage processed to near 30 million tons.

### 17.2 PROCESS FLOW DIAGRAMS AND DESCRIPTION

The overall process flow diagram is presented in Figure 36 following. Owing to the feed material's silver content, a conventional Merrill-Crowe process has been selected. Process flow diagrams were

developed for each operating area with associated equipment lists and circuit mass balances to allow sizing of the associated process equipment list with preliminary equipment sizing. Capital and operating cost models, discussed in Section 21 of this report, were developed using data from the CostMine Mining Cost Estimating service using a factored approach based on a 20,000 tpd leaching operation.

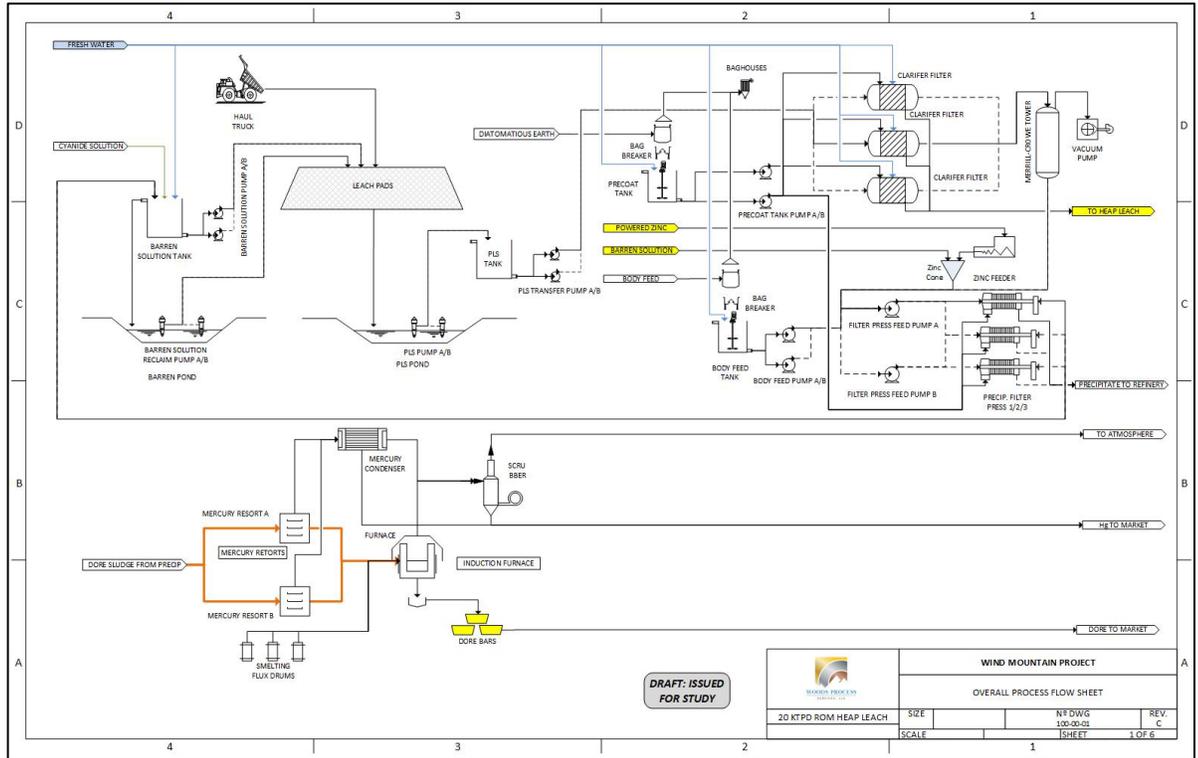


Figure 17-1. Process Flow Diagram

The Wind Mountain process requires a leach pad that is built with suitable linings and solution collection network of perforated piping for efficient leach pad drainage. Leach pad irrigation will be by an HDPE pipe header network with drip line emitters for solution application. Over-liner material is placed on top of the liner and collection pipes for protection and solution flow for collection. ROM leach material is dumped directly in place by mine haul trucks. Prior to placement of ore on the pad, each truck drives under the Lime Silo, LS-01, for the addition of lime on the ore to maintain a proper pH level. A dozer is used to maintain the heap surface gradient of each lift. Ore is tacked to a depth of 27 feet. After an area has been placed, a dozer is used to rip the stacked material to minimize compaction, loosen it and promote solution percolation through the heap.

After pad preparation, the irrigation system is placed on the material and an application of dilute sodium cyanide (NaCN) solution (aka: barren solution) is applied to the surface of the ore through a system of header pipes and drip irrigation lines. The solution is pumped from the Barren Solution Tank, TK-01, by way of the Barren Solution Pumps, PP-01A and PP-01B (one operating and one stand-by). The barren solution percolates through the stacked ore, leaching metals, and collected through the collection system and sent to a pregnant leach solution (PLS) pond. Leaching is most efficient when the solution pH is maintained between 10-10.5.

The PLS solution from the pregnant solution pond is transferred to the Merrill-Crowe circuit by way of the PLS Tank, TK-02, and PLS Transfer Pumps, PP-03A and PP-03B (one operating and one stand-by). At the plant, three pressure leaf filter clarifiers operate in parallel, CF-01, CF-02, and CF-03, remove suspended solid contaminants from the PLS. These filters are sized so that two operating can handle 100 percent of the process design throughput while the third filter is being cleaned. Diatomaceous earth (DE) is used to pre-coat the clarifiers. The DE is mixed with water to form a slurry in the precoat tank, TK-03. The DE slurry is pumped to the clarifiers by the Precoat Pump, PP-05A/B. Clarified PLS solution then reports to the Merrill-Crowe deaeration tower.

Following clarification and deaeration, powered zinc is added to the PLS solution using a Zinc Feeder and Cone, ZF-0. The Zinc reacts with the metal cyanide complexes in solution to precipitate the precious metals as a metal rich sludge. The precious metal sludge is separated from solution using pre-coated plate and frame filter presses in the refinery. The Precipitate Filter Presses, FP-01, FP-02, and FP-03, are fed by the filter press feed pumps, PP-07A/B.

After metal removal from the PLS, the solution is returned as barren solution and reports to the barren solution tank, TK-01. The barren solution is sent to the heap barren tank where NaCN is added to maintain the cyanide concentration before it is recycled back to the heap leach for subsequent leaching. Dry cyanide is added to the Cyanide Mix Tank, TK-05, and mixed with water via the Cyanide Mix Tank Agitator, AG-04. The cyanide is then pumped to the Cyanide Day Tank, TK-06, by way of the Cyanide Solution Transfer Pumps, PP-08A/B. Cyanide is then metered into the Barren Solution Tank by the Cyanide Metering Pumps, PP-09A/B. Any overflow solution of the Barren Solution Tank flows into the Barren Pond 100 and reclaimed to the Barren Solution Tank by Barren Solution Reclaim Pumps, PP-02A/B.

The processing of the metal begins when the metal precipitates are removed from the filter presses, placed into trays, and retorted in the Mercury Retorts, MR-01A and MR-02B, to remove moisture and elemental mercury. A Mercury Condenser, MC-01, condenses the mercury vapors for collection into a mercury transport container to send off site. Any vapors from the retorting process that are not condensed, are captured in a mercury scrubber, SR-01, filled with sulfur impregnated carbon. Retorting is followed by batch flux-smelting in an induction furnace, FU-01. The molten metal or doré and slag is poured into cast molds. After cooling the slag is broken away before molds are completely cooled and separated from the doré buttons. The doré are collected and later remelted with additional flux to produce doré bars are then weighed stamped and readied for shipment.

Fresh water is used to supplement the heap solution owing to ore wetting and evaporation.

### 17.3 PROCESS FACILITIES

Leaching facilities include a single large leach pad, solution pregnant and barren ponds, an emergency drain-down pond, carbon columns and associated building, and an ADR plant. The design of these facilities has not been completed, and they are shown conceptually in Figure 18-1.

## 17.4 PROCESS HYDROLOGY

Process hydrology has not yet been completed. For the PEA it is assumed that sufficient water for processing will be obtained.

## 17.5 REAGENTS AND CONSUMABLES

Reagent consumptions are based on based on test work data and industry norms and are presented in Table 17-2.

Table 17-2 Model Reagent Consumption

SUPPLIES	Reagent Cost	Cost Units	Source	Usage (lb/t)	Total Cost (\$/year,)	Unit Cost (\$/t)	Distribution
Cyanide	3.74	US\$/kg	Market Price/Test Work Consumption	1.000	12,240,000	1.70	72.0%
Zinc	5.35	US\$/kg	Market Price/Test Work Consumption	0.004	70,013	0.01	0.4%
Lime	0.27	US\$/kg	Market Price/Test Work Consumption	3.000	2,650,909	0.37	15.6%
Anti-Scalent	2.200	US\$/kg	Market Price/Test Work Consumption	0.020	144,000	0.02	0.8%
Refining Supplies		US\$/kg	Allowance		400,000	0.06	2.4%
Maintenance Supplies		US\$/kg	Allowance		1,000,000	0.14	5.9%
Laboratory Supplies		US\$/kg	Allowance		500,000	0.07	2.9%
<b>TOTAL REAGENTS</b>					<b>17,004,922</b>	<b>2.36</b>	<b>100.0%</b>

## 17.6 PROCESS PRODUCTION SCHEDULE

The process production schedule has been developed from a detailed monthly mine production schedule, and then summarized into yearly periods. The detailed schedule was used to apply lag time for recoveries to model the time it takes to produce gold and silver after it is placed. The lagging delays any recovery from placed material during the month the material is placed. This allows time for material to be placed and prepped before spraying. The following months allow for 85%, 7%, 5%, and 3% recovery of the total recoverable ounces. This effectively provides a lagging of the recoveries over a period of five months or about 150 days when the placement of material is also considered.

During construction, 0.6 million tons of leach material are placed on the pad. This is assumed to be material that has been crushed as part of construction, and then placed over liner material on the pad. In this case, the recovery is delayed until the start of the production year.

Table 17-3 shows the process production schedule. This shows approximately 43,000 ounces of gold and 239,000 ounces of silver per year of production for five years.



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Table 17-3 Process Production Schedule

Units	Pre-Prod	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Total
K Tons	612	7,220	7,200	7,174	7,200	895	-	30,300
Ozs Au/t	0.012	0.011	0.013	0.011	0.010	0.011	-	0.011
K Ozs Au	8	83	93	81	70	10	-	344
K Ozs Au Recovered	-	51	58	50	44	11	-	213
Cumulative Au Recovery	0.0%	56.1%	59.3%	60.0%	60.5%	61.9%	-	61.9%
Ozs Ag/t	0.233	0.262	0.251	0.257	0.267	0.409	-	0.263
K Ozs Ag	143	1,892	1,805	1,847	1,921	366	-	7,975
K Ozs Ag Recovered	-	278	277	269	276	94	-	1,194
Cumulative Ag Recovery	0.0%	13.7%	14.4%	14.5%	14.5%	15.0%	-	15.0%

# 18.0 PROJECT INFRASTRUCTURE

Project infrastructure is shown conceptually on the site plan map in Figure 18-1.

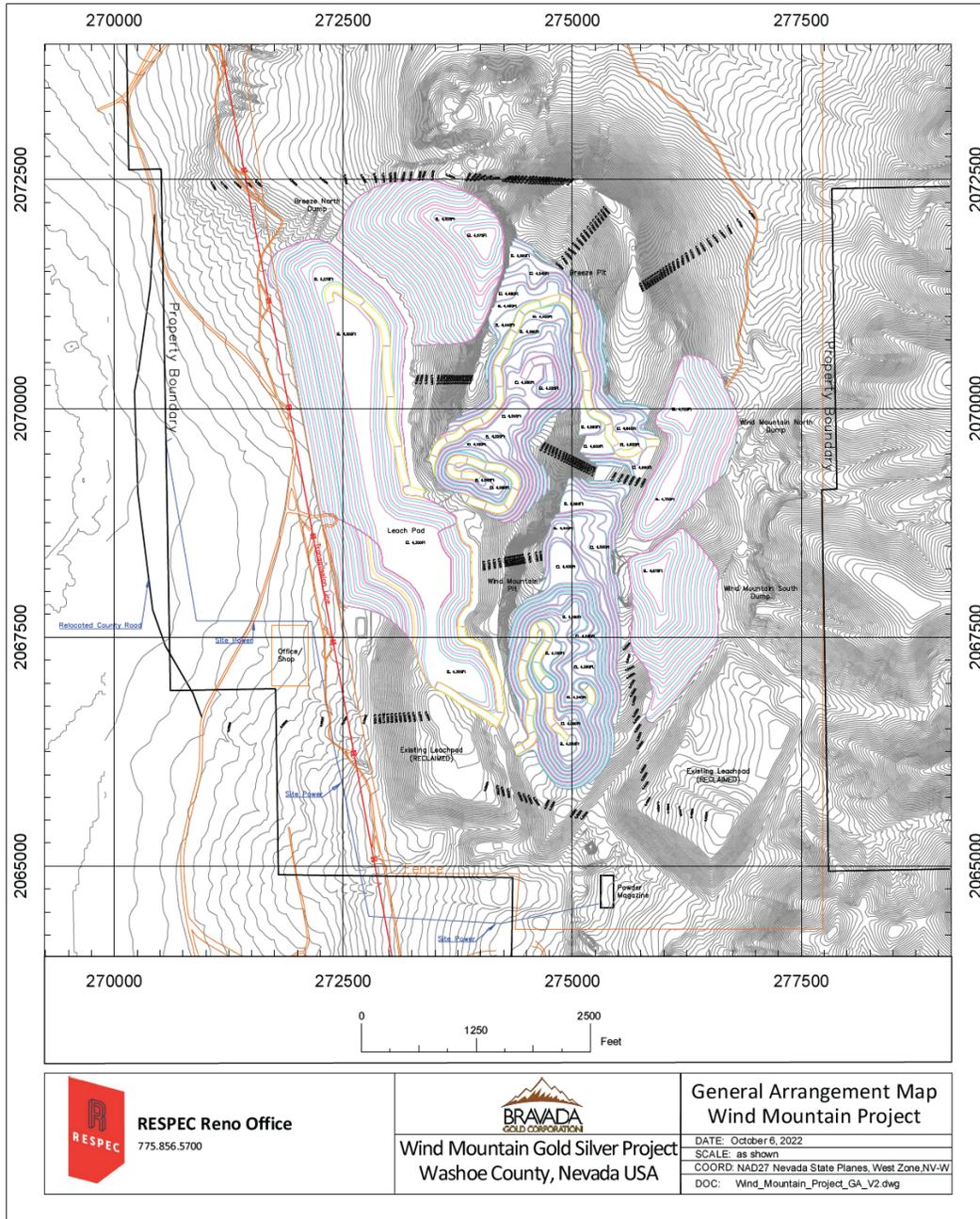


Figure 18-1, Wind Mountain Project General Arrangement Map

### **18.1 ACCESS ROADS**

Primary access to site is via state Hwy 477. This is followed by 10mi of county road to reach the site as shown in Figure 18-1 Road distances to access the leach pad facility, pits, and other infrastructure from the county road are minimal.

### **18.2 POWER**

Power is readily available to the site. Upgrading of the power will be required to install a substation. The power distribution has not yet been designed.

### **18.3 BUILDINGS**

Buildings will be built to house the shop, mine operations offices, and administrative offices. It is anticipated that these will consist of portable office buildings which have been used for capital cost estimates. Conceptual locations are shown in Figure 18-1.

## 19.0 MARKET STUDIES AND CONTRACTS

No market studies have been undertaken for this project; however, the commercial products of this project will be gold and silver bullion. Gold and silver are readily sold to various refineries throughout the world, and it is reasonable to assume that bullion from the Wind Mountain mine is salable.

A selling price of \$1,750/oz Au and \$21.00/oz Ag has been used for the PEA. This is based on a three-year rolling average of metal prices as tabulated from public data as of the end of September 2022. As of the end of September, the 3-year rolling average was \$1,770 and \$22.15 per ounce of gold and silver, respectively. Table 19-1 shows the 2022 monthly average for July, August, and September, high, and low prices as published by Kitco. Table 19-1 also shows the 3-year rolling average prices based on Kitco data.

Table 19-1 2022 Kitco Gold and Silver Prices

	Gold Prices (\$US/Oz)			Silver Price (\$US/Oz)		
	Sep-22	Oct-22	Nov-22	Sep-22	Oct-22	Nov-22
<b>Monthly Average</b>	\$ 1,682.97	\$ 1,664.45	\$ 1,726.45	\$ 18.84	\$ 19.36	\$ 21.00
<b>Monthly High</b>	\$ 1,726.40	\$ 1,714.85	\$ 1,773.00	\$ 19.93	\$ 20.93	\$ 21.95
<b>Monthly Low</b>	\$ 1,634.30	\$ 1,634.30	\$ 1,628.75	\$ 17.77	\$ 18.39	\$ 18.92
<b>3-Year Average</b>	\$ 1,769.72	\$ 1,773.94	\$ 1,781.10	\$ 22.15	\$ 22.20	\$ 22.30

Other than land obligations previously explained, no other contracts have been negotiated with regards to the Wind Mountain property.

## 20.0 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

Debra Struhsacker, an environmental permitting and government relations consultant, provided the following information on environmental liabilities and permitting.

Bravada's U.S. subsidiary, Rio Fortuna, is conducting the exploration at Wind Mountain, and environmental permits are in Rio Fortuna's name. For that reason, "Rio Fortuna" is used throughout this section.

### 20.1 ENVIRONMENTAL STUDY RESULTS AND KNOWN ISSUES

The environmental studies performed in the past did not identify any issues of significant concern that could materially impact Rio Fortuna's ability to secure the permits needed to develop the Wind Mountain deposit. However, these studies will need to be updated to support the permitting efforts for new mining at the Wind Mountain gold-silver project. Based on the currently available baseline data, the Wind Mountain mine site does not include habitat for any officially listed threatened or endangered species. BLM is likely to require Rio Fortuna to perform updated biological surveys to confirm there are no threatened or endangered species and to identify the plant and wildlife species in the project area.

According to BLM's January 7, 2022, approval letter for Rio Fortuna's Notice amendment, the Wind Mountain project area may contain Greater Sage-grouse habitat that includes nesting areas and leks that must be avoided. BLM has established a seasonal operating restriction to limit impacts to Greater sage-grouse that prohibits Rio Fortuna from conducting exploration activities before May 15<sup>th</sup> of each year. Activities between May 15 and June 15 must be conducted in a manner to avoid impacts to the bird, leks, and nests. After June 15<sup>th</sup>, Rio Fortuna must continue to avoid impacting sagebrush to the greatest possible extent by using existing roads and burned areas wherever possible and checking for nests and young Sage-grouse prior to traveling on area roads or via cross-country travel.

BLM's January 2022 approval letter also notes that the project area may contain culturally sensitive historic mining artifacts. Rio Fortuna must avoid all evidence of historical mining activities including prospects, adits, shacks, trash scatter, historic mining equipment, or other historic artifacts or features until they can be examined by a qualified archaeologist.

Native American issues and involvement have recently become more influential in BLM's mine permitting process. The project area includes an outcrop that was a Native American quarry that is part of an area known as the Lake Range Quarries District. This quarry district is eligible for the National Register of Historic Places. As currently planned, the project facilities will not impact the quarry district. However, mitigation would be required if the project facilities have the potential to impact any zones of debitage (the lithic debris created from the manufacturing of stone tools) near the quarry if the debitage zones are deemed to be a contributing element to the quarry district. Northern Paiute area tribes might regard the quarry as a significant site and may seek to be involved with future mitigation measures for the quarry. If project facilities have the potential to impact the debitage zones and trigger a mitigation requirement, it

may be advisable for Rio Fortuna to engage area tribes in a dialogue about the quarry and any unavoidable impacts to debitage zones. There would be some costs associated with coordinating with area tribes and the required mitigation measures.

## 20.2 FUTURE ENVIRONMENTAL BASELINE STUDY REQUIREMENTS

Prior to submitting applications for the permits listed in Table 20.1, Rio Fortuna will need to have pre-application planning meetings with BLM and NDEP/BMRR to determine the scope of the environmental baseline data that will need to be submitted in conjunction with the permit applications.

Based on similar Nevada open-pit, heap-leach processing operations, BLM and NDEP/BMRR are likely to require baseline studies for the following environmental resources: biology (vegetation and wildlife including a golden eagle survey), cultural resources, hydrology, air quality, ore and waste characterization, and socioeconomics.

If a new cultural resources survey is required, BLM will require Rio Fortuna to retain a BLM-approved archaeologist to perform the new Class III cultural resources survey of the project area. This survey would probably focus on the Lake District Quarry to determine if the proposed facilities for new mining and heap leaching at the Wind Mountain gold-silver project have the potential to impact the quarry district or any contributing elements to this district like the debitage zones peripheral to the quarry outcrop.

BLM and NDEP/BMRR will probably require Rio Fortuna to perform new hydrology studies to verify the depth to the water table underneath the proposed pit area to determine whether the proposed pit will penetrate the water table, and to evaluate if there is any potential for a post-closure pit lake to develop. Additionally, because this is the area in which WMMI conducted mining and heap leaching activities, it will be important for Rio Fortuna to collect groundwater quality data upgradient and downgradient of WMMI's facilities to determine if the groundwater quality has been affected by the WMMI-era mining and heap leaching facilities. In the event groundwater quality impacts are detected, Rio Fortuna will need this information to document the site groundwater quality conditions before new mining activities start. This information will also be needed to assess the potential impacts associated with new mining activities.

As part of the pre-application process, Rio Fortuna will need to meet with BLM and NDEP to present a waste rock sampling and waste characterization work plan and study proposal. Preliminary discussions (circa 2011) with regulatory personnel indicated that empirical observations from the existing waste rock dumps and pit walls can be incorporated into the waste characterization studies. The agencies will need to review and approve the waste characterization testing work plan and ore and waste rock sampling plan to confirm the representativeness of the waste characterization samples and the types of waste characterization tests that will be required. If the initial, static test results show that one or more of the waste rock types have the potential to generate acid or leach metals, kinetic humidity cell tests would be required, which would take a minimum of 20 weeks to complete.

Additionally, BLM may require a soils survey, updated socioeconomic baseline data for the Gerlach area and information on ambient air quality conditions.

### 20.3 PROJECT PERMITTING AND BONDING REQUIREMENTS

The federal, state and local permitting requirements anticipated to be necessary for the Wind Mountain project are shown in Table 20-1. The federal, state and local permitting requirements anticipated to be necessary for the Wind Mountain project are shown in Table 20.1. Rio Fortuna has not yet submitted any permit applications for renewed mining activity at Wind Mountain. Subsequent sections describe the federal, state, and local permitting requirements in more detail.

Both BLM and NDEP/BMRR will require a bond for the Wind Mountain gold-silver project. One bond can be used to satisfy both agencies' reclamation bonding requirements. The amount of the bond will be based on a site-specific calculation to determine third-party costs to reclaim the site. The NDEP/BMRR's bonding requirements also include an emergency water management component to keep the pumps operating in the event an operator abandons a site. It is premature at this point to determine the bond amount for the project. Based on bond requirements for other similar sites it will probably be on the order of \$10 to \$1 million.

Table 20-1 Required Permits, Licenses, and Approvals

Permits, Licenses, and Approvals that are Likely to be Required for New Mining and Heap Leach Processing Facilities at the Wind Mountain Project		
Permit/Approval	Granting Agency	Permit Purpose
<i>Federal Permits</i>		
Plan of Operations and Surface Use and Occupancy Permit	BLM - Winnemucca District Office/Black Rock Field Office	Authorize use of public lands for mining purposes under the General Mining Laws and BLM's 43 CFR 3809 surface management and 43 CFR 3715 surface use and occupancy regulations. Establishes operating conditions and mitigation measures to prevent undue & unnecessary degradation. BLM will prepare either an Environmental Assessment or an Environmental Impact Statement to evaluate the Plan. Coordinated with the NDEP Reclamation Permit.
BLM Right-of-Way	BLM - Winnemucca District Office/ Black Rock Field Office	Could be required depending on site configuration for communications facilities or other project components
Explosives Permit	U.S. Bureau of Alcohol, Tobacco & Firearms	Storage and use of explosives
NEPA Review	U.S. Environmental Protection Agency	Cooperating agency for an EISs and/or comments on the Draft EA
Mine Safety & Health Administration Number Notification of Commencement of Operations	U.S. Department of Labor/Mine Safety & Health Administration Mine Safety & Health Administration (MSHA)	Mine safety issues, training plan, mine registration

Permits, Licenses, and Approvals that are Likely to be Required for New Mining and Heap Leach Processing Facilities at the Wind Mountain Project		
Permit/Approval	Granting Agency	Permit Purpose
Nationwide Section 404 Permit	U.S. Army Corps of Engineers	Could be necessary if project facilities affect water of the U.S.
Endangered Species Act Consultation & Biological Assessment	U.S. Fish & Wildlife Service	Required if project affects species listed as threatened or endangered
Federal Communications Commission	FCC	Frequency registrations if project includes radio and/or microwave communication facilities
<i>State Permits</i>		
Reclamation Permit	NDEP/BMRR	Reclamation of surface disturbance due to mining and mineral processing. Includes financial assurance requirements. Coordinated with BLM Plan of Operations
Good Standing Affidavit	NDEP/BMRR	Affidavit affirming the applicant is in good standing with NDEP/BMRR and agencies in other states that issue reclamation permits
Water Pollution Control Permit	NDEP/BMRR	Establishes minimum facility design and containment requirements to prevent degradation of waters of the state from mining.
Petroleum-Contaminated Soil Management Plan	NDEP/BMRR	On-site treatment and management of hydrocarbon-contaminated soils
Solid Waste Class III Landfill Waiver	NDEP/Bureau of Sustainable Materials Management (BSMM)	On-site disposal of non-mining, non-hazardous solid wastes
EPA Hazardous Waste ID No.	NDEP/BSMM	Registration as a small-quantity generator of wastes regulated as hazardous
Stormwater General Permit NVR 300000 for Stormwater Discharge Associated with Industrial Activity from Metals Mining Activities	NDEP/Bureau of Water Pollution Control (BWPC)	Non-point source stormwater management and control
Septic Tank Permit	NDEP/BWPC	On-site septic system
Transient Non-Community Public Water System	NDEP Bureau of Safe Drinking Water (BSDW)	On-site potable water system
Permit to Appropriate Water	NV Division of Water Resources	Water appropriation
Permit to Construct Impoundments	NV Division of Water Resources	Design and construction of embankments or other structures with a crest height 20 feet or higher,

Permits, Licenses, and Approvals that are Likely to be Required for New Mining and Heap Leach Processing Facilities at the Wind Mountain Project		
Permit/Approval	Granting Agency	Permit Purpose
		as measured from the downstream toe to the crest, or that impound 20 acre-feet or more
Monitoring Well Waivers and Drill Hole Plugging	NV Division of Water Resources	Authorize completion of water wells as monitoring wells, plugging requirements for exploration drill holes
Industrial Artificial Pond Permit	NV Department of Wildlife	Ponds containing chemicals directly associated with the processing of ore.
NEPA Document Review	NV Department of Wildlife	Cooperating agency for an EISs and/or comments on the Draft EA
Liquefied Petroleum Gas License	NV Board of the Regulation of Liquefied Petroleum Gas	Tank specification and installation, handling, and safety requirements
Radioactive Materials License	NV Bureau of Sustainable Materials Management	Nuclear flow and mass measurement devices if used in the lab/mineral processing facility.
Septic Treatment Permit Sewage Disposal System	NDEP/Bureau of Water Pollution Control	Design, operation, and monitoring of septic and sewage disposal systems. (Washoe County may also regulated septic systems.)
Hazardous Materials Storage Permit	Nevada Fire Marshall	Hazardous materials safety
<i>Local Permits</i>		
Air Quality Operating Permit	Washoe County Health District Air Quality Management Division	Air quality monitoring, air pollution control and compliance with federal, state, and local environmental laws governing air quality
Nevada Mercury Control Program Permit	Washoe County Health District Air Quality Management Division	Regulates mercury emissions from thermal units like retorts, furnaces, electrowinning circuits. Would be required if project emissions exceed the <i>de minimis</i> level of 5 pounds of mercury/year
Class I Air Quality Operating Permit	Washoe County Health District Air Quality Management Division	Regulates mercury emissions from thermal units like retorts, furnaces, electrowinning circuits. Would be required if project emissions exceed the <i>de minimis</i> level of 5 pounds of mercury/year

Permits, Licenses, and Approvals that are Likely to be Required for New Mining and Heap Leach Processing Facilities at the Wind Mountain Project		
Permit/Approval	Granting Agency	Permit Purpose
Building or Zoning Permits	Washoe County Department of Building and Safety	Compliance with national and local building codes
Special Use Permit	Washoe County Department of Planning and Board of County Commissioners	Compliance with land use designations and other county requirements, compatibility with the Washoe County Regional Open Space Program.
County Road Use and Maintenance Permit	Washoe County Public Works Department/Roads Division	Maybe required for use and maintenance of county roads

## 20.4 BLM PERMITS

### 20.4.1 PLAN OF OPERATIONS

Rio Fortuna will need to prepare a Mine Plan of Operations that describes the procedures for constructing operating, closing proposed open-pit mining and heap leach mineral processing facilities for the new Wind Mountain gold-silver project. The Plan of Operations is based on the mine plan design and the data gathered as part of the environmental baseline studies. The Plan of Operations document also serves as the application for the NDEP/BMRR Reclamation Permit. BLM and BMRR have specific information requirements for the Plan of Operations, which include a waste rock management plan, quality assurance plan, a storm water plan, a spill prevention plan, reclamation plan, a monitoring plan, and an interim management plan. In addition, a reclamation report with a Reclamation Cost Estimate (“RCE”) for the closure of the project is required.

BLM will review the Mine Plan of Operations to determine if it is complete. At roughly the same time, BLM will also evaluate whether the environmental baseline studies are complete and provide enough information on the environmental site conditions to support the environmental impact analysis that must be presented in the NEPA document described in Section 20.4.2. Once BLM deems the Plan is complete and there is sufficient environmental baseline data to evaluate potential project impacts, the NEPA process begins.

### 20.4.2 THE NEPA PROCESS

The NEPA process is triggered by a federal action. In this case, the need to respond to Rio Fortuna’s Mine Plan of Operations for new mining and heap leaching at the Wind Mountain gold-silver project will constitute a federal action that will require BLM to prepare a NEPA document to analyze environmental impacts and project alternatives by preparing either an Environmental Assessment (EA) or an Environmental Impact Statement. Most Nevada mining projects require BLM to prepare an EIS. BLM will typically prepare an EA for mineral exploration projects.

BLM must comply with the Council on Environmental Quality's (CEQ's) NEPA regulations at (40 CFR 1500 et. seq. to prepare either an EA or an EIS. BLM must also follow the agency's guidelines for implementing NEPA in BLM Handbook H-1790-1 (updated January 2008).

The intent of an EA or an EIS is to seek public comments on a proposed project and to assess and disclose the nature and significance of the direct, indirect, residual, and cumulative effects of the proposed project and project alternatives. BLM must conduct public scoping as part of the NEPA process and will have a 30-day public comment period to solicit public input on issues of concern to the public, alternatives to the proposed project such as different configurations and locations for project facilities, and mitigation measures. The scoping process also involves BLM resource specialists who will determine the issues to be evaluated in detail in the NEPA document and the scope of the environmental baseline studies that will be required.

For most mineral projects, the project proponent pays for a third-party contractor to prepare the NEPA document. In the case of an EA, BLM can prepare the document using agency specialists. However, project proponents typically retain a third-party contractor to work with BLM to prepare the EA to expedite the process. When the BLM determines that the Draft EA is ready for public review, it will initiate a 30-day review period and distribute the document to interested parties and state and federal agencies. Comments received from other agencies and the public are incorporated into a Final EA. BLM can authorize a Plan of Operations to proceed if the EA demonstrates the proposed project will not create any significant impacts and a Finding of No Significant Impacts is warranted.

Once project scoping is completed, it typically takes BLM roughly six to twelve months to complete the EA process. BLM will issue a Decision that includes Conditions of Operation, other environmental stipulations, and a Determination of Required Financial Assurance (i.e., the amount of the reclamation bond that the project proponent must provide to BLM before project activities can begin.) Phased bonding may be appropriate for some projects where the operator provides a bond tied to specific phases of the proposed activities.

The EIS process is more formal, takes longer, and costs more than the EA process. In addition to paying for a third-party contractor to work with BLM to prepare the EIS, the project proponent also pays the costs for BLM specialists to work on the EIS.

The EIS process involves publishing at least four BLM notices in the Federal Register: 1) the Notice of Intent (NOI) to announce BLM's intent to prepare an EIS; 2) the Notice of Availability (NOA) of the Draft EIS for public review; 3) the NOA for the Final EIS; and 4) the NOA of BLM's final decision called the Record of Decision (ROD). The Washington, DC office of BLM controls the Federal Register publication process. Although Nevada BLM offices are striving to complete the EIS process within one year following publication of the NOI in the Federal Register, delays in the Federal Register notice publication process are currently affecting BLM's ability to meet their one-year EIS timeline objective.

When Nevada BLM officials determine the Draft EIS is complete, they will send the NOA package to the Washington, DC BLM office requesting publication of the NOA in the Federal Register. The NOA will announce the start of the public comment period on the Draft EIS, which must last a minimum of 45 days.

BLM will respond to comments received from the public on the Draft EIS in the Final EIS. BLM will publish a NOA to initiate a 30-day public comment period on the Final EIS. The ROD cannot be published sooner than 30 days after publication of the NOA for the Final EIS.

In contrast to an EA, which BLM can use to authorize projects with no significant impacts, there can be significant impacts under an EIS. The EIS must describe and quantify any significant impacts and the mitigation measures taken to avoid, minimize and mitigate impacts wherever possible.

## 20.5 NEVADA STATE PERMITS

### 20.5.1 RECLAMATION PERMIT

The NDEP/BMRR Reclamation Permit is coordinated closely with the BLM Mine Plan of Operations, with the Wind Mountain BLM Mine Plan of Operations serving as the application for the NDEP/BMRR Reclamation Permit. Rio Fortuna will need to submit a Reclamation Cost Estimate (RCE) based on the NDEP/BMRR's Standardized Reclamation Cost Estimating (SRCE) software to determine the amount of financial assurance (i.e.; the reclamation bond) that will be required. As stated above, it is premature to calculate the RCE for the new mine. However, it is reasonable to assume based on similar projects that the reclamation bond required for the new project will be on the order of \$10 to \$15 million.

The former Wind Mountain mine is one of the few mines in Nevada that has satisfied all state and federal closure requirements, where BLM and NDEP/BMRR have closed their permit files, and the reclamation bond has been released to the operator. This successful closure strongly suggests there will be no unusual or problematic closure issues associated with a similar, new, above-the-water-table mine at Wind Mountain.

NDEP/BMRR and BLM will probably release the bond for Rio Fortuna's new Wind Mountain gold-silver mining and heap leaching project incrementally when specific reclamation milestones have been achieved. Once the earthworks portion of the closure and reclamation work has been completed, BLM and NDEP/BMRR may release the portion of the bond for the earthworks required to recontour the project facilities to a stable configuration that blends in with the surrounding topography and meets regulatory requirements. The agencies can release another incremental portion of the bond when plant growth on the reclaimed facilities meets the revegetation success criteria. It is anticipated that the agencies will require post-closure monitoring of the site until heap draindown has diminished to the point at which there is no further need to monitor and maintain the draindown management facilities. Based on the prior closure history for this site, this will take about 10 years. (Leaching at the former Wind Mountain project ceased in 1999; BLM and NDEP/BMRR deemed this operation successfully reclaimed and fully released the bond in 2009.)

### 20.5.2 WATER POLLUTION CONTROL PERMIT FOR WASTE ROCK DISPOSAL, MONITORING, AND WATER MANAGEMENT

The Wind Mountain mining and mineral processing facilities will require an NDEP/BMRR Water Pollution Control Permit (WPCP) that governs the design, operation, monitoring, and closure requirements for these facilities. This permit will evaluate the geochemistry of the waste rocks to be mined and the design for the new waste rock disposal facilities, which is anticipated to be similar to the waste rock dumps that

are already present at the site. Like the waste rocks that were mined for the previous operation, the dominantly oxide waste rock material to be mined during renewed mining activity above the water table is not anticipated to be a source of acid generation or metals leaching. This will need to be verified with the waste characterization tests described in Section 20.2.

The water management facilities for the new mine facilities will have to comply with the NDEP/BMRR's new requirement for storm water diversions at mining facilities to be designed and built to withstand the 24-hour/500-year storm event. Because the Wind Mountain gold-silver project is located in an area where evaporation exceeds precipitation, the project must be designed to contain all process solutions and to be a zero-discharge to groundwater facility.

The Wind Mountain gold-silver project WPCP will require project monitoring to verify that the project facilities are operating as designed and complying with project permit limits. The heap leach facility will require monitoring of the leak detection systems to document the integrity of the liners for the pads, solution containment ponds, and ditches. Groundwater monitoring wells will have to be installed downgradient from the heap leach processing facilities and monitored on a regular basis to verify that groundwater is not being impacted by these facilities.

The closure requirements for the Wind Mountain mine are anticipated to be similar to the successfully closed mine at the Wind Mountain site. However, NDEP/BMRR recently established more conservative regrading requirements for mine sites. The new heap leach and waste rock storage facilities at the Wind Mountain gold-silver project will have to be regraded to comply with NDEP/BMRR's new three-to-one final slope configuration requirement.

The post-closure monitoring requirements will be similar to the monitoring required for the previous Wind Mountain mine. These requirements will include routine sampling of the groundwater monitoring wells downgradient from the project facilities. Rio Fortuna will also be required to monitor the performance of the closed heap leach facility. The post-closure monitoring required for the heap will include the volume and quality of the heap draindown solutions and the long-term performance of the evaporation cells or other downgradient heap-drainage management facilities. If the closure design includes an engineered cap or cover on the heap, monitoring will also be required to confirm the integrity of any such cover or cap. Post-closure monitoring will also determine the progress and success of plant growth on revegetated areas within the reclaimed mine site.

## 20.6 WASHOE COUNTY PERMITS

### 20.6.1 AIR QUALITY PERMITS

All Nevada gold and silver mining projects with thermal processing equipment that has the potential to emit mercury to the atmosphere require the Nevada Mercury Control Program Permit and the Class I Air Quality Operating Permit for mercury listed in Table 20.1. Except for Washoe and Clark Counties, the NDEP/Bureau of Air Pollution Control (BAPC) has jurisdiction over air quality permitting and routinely issues these mining-specific mercury air quality permits for Nevada gold and silver mines. However, in Washoe County, the Washoe County Health Division Air Quality Management District (AQMD) has jurisdiction for reviewing and issuing all air quality permits.

Given the lack of gold mining activities in Washoe County, the AQMD has not yet reviewed any applications for these mercury permits and thus does not have familiarity with either of these permitting programs. Because both the Nevada Mercury Control Program Permit and Class I Air Quality Operating Permit for mercury emissions are highly technical and specific to the types of equipment at gold processing operations that have the potential to emit mercury to the atmosphere, there will be a learning curve during the agency's review processes for these permits. Hopefully the AQMD will seek input from NDEP/BAPC to facilitate their review. There is, however, potential for permitting delays associated with both of the mercury air quality permits as AQMD becomes familiar with these permitting programs.

The Washoe County air quality permits will specify air quality monitoring requirements to confirm that the crushers, baghouses, conveyors, mercury emissions control equipment, and other emission sources are complying with the emission limits established in the project's air quality permits for each specific piece of equipment. The project will also have to use Best Management Practices to minimize fugitive dust emissions from project roads and other disturbed surfaces.

#### **20.6.2 SOCIAL AND COMMUNITY ISSUES AND THE WASHOE COUNTY SPECIAL USE PERMIT**

The demographics of the Gerlach area have been changing over the last several years as people affiliated with Burning Man have purchased roughly 70 parcels of private land in and around Gerlach. These property owners may oppose the redevelopment of the Wind Mountain gold-silver project due to concerns about potential environmental impacts and socioeconomic issues that could change the community. For example, a group of these property owners recently opposed the development of geothermal facilities adjacent to the town.

Local opposition to the Wind Mountain gold-silver development could influence the Washoe County Commissioners' decision whether to issue the Special Use Permit (SUP) for the project. Rio Fortuna will need to develop a strategy to minimize and manage local opposition if it develops. It is recommended that early during the permitting process for the Wind Mountain gold-silver project, Rio Fortuna engage Gerlach residents and property owners in a dialogue to address any community concerns about the project, to mitigate any identified impacts to the community that would result from redevelopment of the Wind Mountain gold-silver project, and to look for ways that a new mining project at Wind Mountain could benefit Gerlach and area property owners.

The Washoe County Planning Department will review Rio Fortuna's SUP application and will make a recommendation to the Washoe County Planning Commission whether they should issue or deny the SUP. The Washoe County Board of County Commissioners would get involved if there is an appeal of the Planning Commission's SUP decision. The SUP will evaluate whether the Wind Mountain gold-silver project is compatible with existing zoning and land use planning designations, impacts to any nearby residents or communities, and may establish stipulations to address community concerns.

Because there are no currently operating gold mines in Washoe County, Washoe County officials and the general public are not familiar with mining, which may lead to questions and concerns about a future Mine Plan of Operations to develop the Wind Mountain gold-silver project. Additionally, there is a discretionary element to the Planning Commission's and the County Commissioners' decisions whether to approve or deny a SUP that can be influenced by LOCAL opinion.



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Consequently, Rio Fortuna should start working with project stakeholders and Washoe County officials early during the permitting process to educate the interested public and county decisionmakers about mining in general and the environmental protection measures that would be used at a future mining and heap leaching operation at the Wind Mountain gold-silver project. Throughout the permitting process, Rio Fortuna should strive to keep the public and county officials well informed about the project in order to minimize public concerns, build public support, and nurture strong working relationships with Washoe county officials.

## 21.0 CAPITAL AND OPERATING COSTS

Process capital and operating costs have been estimated by Woods Process. Thomas Dyer is responsible for mining costs which is assumed to be done by contractor at rates reflecting recent contractor rates in similar Nevada mining projects. Additional mining capital have been assumed based on the size of the proposed operation. General and administration costs have been estimated by RESPEC based on assumed personnel requirements and typical requirements for Nevada mining operations.

Table 21-1 shows the estimate for capital and operating costs.

Table 21-1 Operating and Capital Costs Summary

Operating Costs		Pre-Prod	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Total
Mining Cost	K USD	-	36,063	29,431	26,179	24,428	2,747	-	118,848
Process Cost	K USD	1,938	22,887	22,824	22,742	22,824	2,836	-	96,052
Site G&A Cost	K USD	1,308	3,996	3,996	3,996	3,996	999	-	18,292
Reclamation	K USD	-	-	-	-	-	7,575	-	7,575
Net Proceeds Tax	K USD	-	1,491	2,479	1,904	1,480	712	-	8,066
<b>Net Operating Cost</b>	<b>K USD</b>	<b>3,246</b>	<b>64,437</b>	<b>58,731</b>	<b>54,822</b>	<b>52,728</b>	<b>14,870</b>	<b>-</b>	<b>248,833</b>
Capital Costs									
Contractor Capital	K USD	225	-	-	-	-	200	-	425
Owner Capital	K USD	765	-	-	-	-	-	-	765
Prestripping - Contractor	K USD	10,100	-	-	-	-	-	-	10,100
Mining General Services	K USD	533	-	-	-	-	-	-	533
Process Capital	K USD	30,904	-	-	17,589	-	-	-	48,493
Site Capital	K USD	3,063	662	400	400	400	400	-	5,325
Other	K USD	1,000	-	-	-	-	-	-	1,000
<b>Sub-total</b>	<b>K USD</b>	<b>46,590</b>	<b>662</b>	<b>400</b>	<b>17,989</b>	<b>400</b>	<b>600</b>	<b>-</b>	<b>66,641</b>
Working Capital	K USD	-	10,613	-	-	-	(10,613)	-	-
<b>Total Capital</b>	<b>K USD</b>	<b>46,590</b>	<b>11,275</b>	<b>400</b>	<b>17,989</b>	<b>400</b>	<b>(10,013)</b>	<b>-</b>	<b>66,641</b>

### 21.1 CAPITAL COST

#### 21.1.1 MINE CAPITAL

Mine pre-stripping capital is estimated to be \$10.6 million based contract mining and mining personnel required to manage the contract.

Other mining capital was estimated assuming contract mining; thus, there would be no major mining equipment capital cost. The mine capital requirement is estimated to be \$1.2 million dollars and includes:

- / Initial Mine Capital estimate is \$965,000 including:
  - » \$300,000 for light vehicles;
  - » \$370,000 for office equipment and software;
  - » \$225,000 for contractor mobilization and facilities;
  - » \$70,000 for office building; and
- / \$200,000 for contractor demobilization in year five.

### 21.1.2 PROCESS CAPITAL

Process capital was estimated by Woods Process using the process equipment list and InfoMine equipment cost data using a factored estimating method. Initial capital of \$48.5 million is assumed for plant, pad, and pond construction. In addition, another \$35,000 was added for light vehicles, and \$80,000 was added for a portable office building.

Table 21-2 Process Capital Cost Estimate

Area		CAPEX (\$000)
Leaching		\$665
Merrill Crowe		\$4,596
Refinery		\$971
Reagents		\$345
Utilities		\$191
Misc.		\$1,500
Plant Power		\$753
<b>TOTAL</b>		<b>\$9,021</b>
Freight	5%	\$451
EPCM	15%	\$1,353
Process Direct Cost		\$10,825
Leach Pad		\$28,600
Process Total Capital		\$39,425
Contingency	20%	\$7,885
Owner's Cost	3%	\$1,183
Subtotal Indirects		\$9,068
<b>TOTAL</b>		<b>\$48,493</b>

### 21.1.3 OTHER CAPITAL

Other capital includes:

- / \$5.3 million for General and Administration capital including light vehicles, office equipment, buildings, access roads, safety and security, geotechnical equipment, permitting, monitoring wells, and power;
- / \$1.0 million to buy down the Agnico-Eagle royalty from 2% to 1% net smelter return; and
- / \$10.6 million for working capital, which is credited back at the end of the mine life.

## 21.2 OPERATING COST

### 21.2.1 MINE OPERATING COSTS

The mine operating costs assume contract mining and have been estimated using an average rate of \$2.59 per ton mined for the contractor. An additional cost of \$0.17 per ton is estimated for mine general services which includes the cost of mine supervision, engineering services, and geologic services for ore control along with assumptions for supplies for each department. The total cost per ton for mining is \$2.77/ton (apparent discrepancy in addition of the mining cost is due to rounding). The mining summary is shown in Table 21-3

Table 21-3 Mine Cost Summary

<i>Mining Cost Summary</i>	Units	Pre-Prod	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Total
Mine General Services	K USD	\$ 533	\$ 1,761	\$ 1,761	\$ 1,761	\$ 1,761	\$ 440	\$ -	\$ 8,019
Mine Contracting Cost	K USD	\$ 10,100	\$ 34,301	\$ 27,670	\$ 24,577	\$ 22,666	\$ 2,307	\$ -	\$ 121,622
<b>Total Mining Cost</b>	<b>K USD</b>	<b>\$ 10,633</b>	<b>\$ 36,063</b>	<b>\$ 29,431</b>	<b>\$ 26,339</b>	<b>\$ 24,428</b>	<b>\$ 2,747</b>	<b>\$ -</b>	<b>\$ 129,640</b>
Total After Capitalization of Pre-Prod	K USD	\$ -	\$ 36,063	\$ 29,431	\$ 26,339	\$ 24,428	\$ 2,747	\$ -	\$ 119,007
<b>Total Mining Cost</b>	<b>\$/ton Mined</b>	<b>\$ -</b>	<b>\$ 2.70</b>	<b>\$ 2.76</b>	<b>\$ 2.69</b>	<b>\$ 2.64</b>	<b>\$ 2.84</b>	<b>\$ -</b>	<b>\$ 2.77</b>
	<b>\$/oz Au Prod</b>	<b>\$ -</b>	<b>\$ 713.59</b>	<b>\$ 506.54</b>	<b>\$ 530.92</b>	<b>\$ 559.39</b>	<b>\$ 250.20</b>	<b>\$ -</b>	<b>\$ 558.99</b>
	<b>\$/ton Processed</b>	<b>\$ -</b>	<b>\$ 4.99</b>	<b>\$ 4.09</b>	<b>\$ 3.67</b>	<b>\$ 3.39</b>	<b>\$ 3.07</b>	<b>\$ -</b>	<b>\$ 3.93</b>

#### 21.2.1.1 CONTRACTOR MINING COST

Table 21-4 shows the contractor estimated costs. These contractor costs are based on budgetary quotations provided for a similar project, which were provided as a cost per ton for both ore and waste. The gallons of fuel per ton were also provided by the contractor, and these have been scaled to reflect an assumed \$3.50 per gallon of diesel.

Table 21-4 Contractor Mining Cost Estimate

<i>Costs - Leach</i>	Units	Pre-Prod	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Total
Mining Cost Before Fuel	\$/ton	\$ 3.60	\$ 2.38	\$ 2.14	\$ 2.03	\$ 1.92	\$ 1.86	\$ -	\$ 2.17
Extended Cost Before Fuel	K USD	\$ 4,877	\$ 15,538	\$ 15,397	\$ 14,438	\$ 13,813	\$ 1,663	\$ -	\$ 65,726
Fuel Costs	Gallons	199,239	960,283	1,058,400	1,046,280	1,058,400	131,532	-	4,454,135
	Gal/ton	0.15	0.15	0.15	0.15	0.15	0.15	-	0.15
	K USD	\$ 697	\$ 3,361	\$ 3,704	\$ 3,662	\$ 3,704	\$ 460	\$ -	\$ 15,589
<b>Total w/Fuel</b>	<b>K USD</b>	<b>\$ 5,575</b>	<b>\$ 18,899</b>	<b>\$ 19,102</b>	<b>\$ 18,100</b>	<b>\$ 17,518</b>	<b>\$ 2,123</b>	<b>\$ -</b>	<b>\$ 81,316</b>
	<b>\$/ton</b>	<b>\$ 4.11</b>	<b>\$ 2.89</b>	<b>\$ 2.65</b>	<b>\$ 2.54</b>	<b>\$ 2.43</b>	<b>\$ 2.37</b>	<b>\$ -</b>	<b>\$ 2.68</b>
<i>Costs - Waste</i>	Units	Pre-Prod	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Total
Mining Cost Before Fuel	\$/ton	\$ 2.53	\$ 1.77	\$ 1.99	\$ 1.93	\$ 2.01	\$ 2.06	\$ -	
Extended Cost Before Fuel	K USD	\$ 3,786	\$ 12,038	\$ 6,862	\$ 5,156	\$ 4,132	\$ 148	\$ -	\$ 32,122
Fuel Costs	Gallons	211,365	961,381	487,338	377,556	290,501	10,169	-	-
	Gal/ton	0.14	0.14	0.14	0.14	0.14	0.14	-	-
	K USD	\$ 740	\$ 3,365	\$ 1,706	\$ 1,321	\$ 1,017	\$ 36	\$ -	\$ 8,184
<b>Total w/Fuel</b>	<b>K USD</b>	<b>\$ 4,526</b>	<b>\$ 15,403</b>	<b>\$ 8,568</b>	<b>\$ 6,477</b>	<b>\$ 5,149</b>	<b>\$ 184</b>	<b>\$ -</b>	<b>\$ 40,306</b>
	<b>\$/ton</b>	<b>\$ 3.02</b>	<b>\$ 2.26</b>	<b>\$ 2.48</b>	<b>\$ 2.42</b>	<b>\$ 2.50</b>	<b>\$ 2.55</b>	<b>\$ -</b>	<b>\$ 2.43</b>
<i>Costs - Total</i>	Units	Pre-Prod	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Total
Mining Cost Before Fuel	K USD	\$ 8,663	\$ 27,575	\$ 22,260	\$ 19,594	\$ 17,945	\$ 1,811	\$ -	\$ 97,848
Fuel	Gallons	410,604	1,921,664	1,545,738	1,423,837	1,348,901	141,701	-	6,792,445
	Gal/ton	0.14	0.14	0.15	0.15	0.15	0.15	-	0.14
	K USD	\$ 1,437	\$ 6,726	\$ 5,410	\$ 4,983	\$ 4,721	\$ 496	\$ -	\$ 23,774
<b>Total w/Fuel</b>	<b>K USD</b>	<b>\$ 10,100</b>	<b>\$ 34,301</b>	<b>\$ 27,670</b>	<b>\$ 24,577</b>	<b>\$ 22,666</b>	<b>\$ 2,307</b>	<b>\$ -</b>	<b>\$ 121,622</b>
<b>Total w/Fuel</b>	<b>\$/ton</b>	<b>\$ 3.54</b>	<b>\$ 2.57</b>	<b>\$ 2.60</b>	<b>\$ 2.51</b>	<b>\$ 2.45</b>	<b>\$ 2.39</b>	<b>\$ -</b>	<b>\$ 2.59</b>

### 21.2.1.2 MINE GENERAL COSTS

Mine general costs were estimated to include the mine supervision, engineering services, and geologic services cost estimates. Most of these costs are based on the personnel required to manage the contractor and provide ore control. Total personnel costs are about \$1.5 million per year and total \$7.0 million for the life of mine.

The mine general services costs also include supplies and support broken down by operations, engineering, geology, software maintenance and light vehicles. The total supplies and support is estimated to be about \$230,000 per year or \$1.1 million for the LOM. The total LOM cost for general services is estimated to be 8.0 million for the LOM or about \$0.17 per ton mined. The General services cost estimate is shown in Table 21-5.

Table 21-5 Mining General Services Cost Estimate

<b>Personnel Costs</b>	<b>Units</b>	<b>Pre-Prod</b>	<b>Yr 1</b>	<b>Yr 2</b>	<b>Yr 3</b>	<b>Yr 4</b>	<b>Yr 5</b>	<b>Yr 6</b>	<b>Total</b>
Mine Superintendent	K USD	\$ 55	\$ 166	\$ 166	\$ 166	\$ 166	\$ 42	\$ -	\$ 761
Mine Clerk	K USD	\$ -	\$ 74	\$ 74	\$ 74	\$ 74	\$ 19	\$ -	\$ 316
Chief Engineer	K USD	\$ 70	\$ 211	\$ 211	\$ 211	\$ 211	\$ 53	\$ -	\$ 968
Mine Engineer	K USD	\$ 45	\$ 136	\$ 136	\$ 136	\$ 136	\$ 34	\$ -	\$ 624
Chief Surveyor	K USD	\$ 38	\$ 114	\$ 114	\$ 114	\$ 114	\$ 29	\$ -	\$ 523
Mine Tech / Surveyor	K USD	\$ 30	\$ 89	\$ 89	\$ 89	\$ 89	\$ 22	\$ -	\$ 406
Chief Geologist	K USD	\$ 47	\$ 140	\$ 140	\$ 140	\$ 140	\$ 35	\$ -	\$ 640
Ore Control Geologist	K USD	\$ 43	\$ 129	\$ 129	\$ 129	\$ 129	\$ 32	\$ -	\$ 589
Samplers	K USD	\$ 30	\$ 177	\$ 177	\$ 177	\$ 177	\$ 44	\$ -	\$ 782
Support Equipment Operator	K USD	\$ 66	\$ 199	\$ 199	\$ 199	\$ 199	\$ 50	\$ -	\$ 911
Mine Labor	K USD	\$ 32	\$ 97	\$ 97	\$ 97	\$ 97	\$ 24	\$ -	\$ 444
<b>Total Owner Personnel Costs</b>	<b>K USD</b>	<b>\$ 456</b>	<b>\$ 1,531</b>	<b>\$ 1,531</b>	<b>\$ 1,531</b>	<b>\$ 1,531</b>	<b>\$ 383</b>	<b>\$ -</b>	<b>\$ 6,963</b>
<b>Supplies &amp; Other</b>	<b>Units</b>	<b>Pre-Prod</b>	<b>Yr 1</b>	<b>Yr 2</b>	<b>Yr 3</b>	<b>Yr 4</b>	<b>Yr 5</b>	<b>Yr 6</b>	<b>Total</b>
Mine General Services Supplies	K USD	\$ 8	\$ 24	\$ 24	\$ 24	\$ 24	\$ 6	\$ -	\$ 110
Site Maintenance	K USD	\$ 30	\$ 90	\$ 90	\$ 90	\$ 90	\$ 23	\$ -	\$ 413
Engineering Supplies	K USD	\$ 6	\$ 18	\$ 18	\$ 18	\$ 18	\$ 5	\$ -	\$ 83
Geology Supplies	K USD	\$ 6	\$ 18	\$ 18	\$ 18	\$ 18	\$ 5	\$ -	\$ 83
Software Maintenance & Support	K USD	\$ 9	\$ 26	\$ 26	\$ 26	\$ 26	\$ 7	\$ -	\$ 120
Light Vehicles	K USD	\$ 18	\$ 54	\$ 54	\$ 54	\$ 54	\$ 14	\$ -	\$ 248
<b>Total General G&amp;A Costs</b>	<b>K USD</b>	<b>\$ 77</b>	<b>\$ 230</b>	<b>\$ 230</b>	<b>\$ 230</b>	<b>\$ 230</b>	<b>\$ 58</b>	<b>\$ -</b>	<b>\$ 1,055</b>
<b>Total Mine General Services</b>	K USD	533	1,761	1,761	1,761	1,761	440	-	\$ 8,019
	\$/ton Mined	\$ 0.19	\$ 0.13	\$ 0.17	\$ 0.18	\$ 0.19	\$ 0.46	\$ -	\$ 0.17

### 21.2.2 PROCESS OPERATING COSTS

Process operating were developed using a typical process staffing plan, test work reagent consumptions, and estimated installed equipment horse powers. Labor rates are based on published mining labor rates for 2022. Reagent costs represent current market rates including freight. Power costs are estimated using the Northern Nevada nominal industrial average rate of \$0.06 per kWhr.

<b>Line Item</b>	<b>\$/t</b>
Operations Manpower	0.52
Reagents/Supplies	2.36
Power	0.29
<b>TOTAL - Process Operating</b>	<b>3.17</b>

### 21.2.3 OTHER OPERATING COSTS

G&A costs were built up based on personnel salaries, supplies, software maintenance and support, and light vehicle costs. The costs were estimated by department including administrative services, safety services, security services, human resources, and environmental. In addition, additional costs were included to cover offsite overhead, legal services, land/claim maintenance, property taxes, environmental monitoring, donations, licenses and insurance, access road maintenance, and office power. These costs are shown in Table 21-6.

Net proceeds tax is charged at a rate of 5% of the revenue after royalties and deduction of operating costs. This tax is collected by the State of Nevada for all mineral mining operations that have a net operating income over \$4.0 million per year. The net proceeds tax has been included as an operating cost in the cash-flow model and totals \$7.7 million for the LOM.

Table 21-6 G&A Operating Costs

<i>Owner Personnel</i>	Units	Pre-Prod	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Total
Admin Salaried Personnel	K USD	\$ 25	\$ 74	\$ 74	\$ 74	\$ 74	\$ 19	\$ -	\$ 341
Admin Hourly Personnel	K USD	\$ 8	\$ 48	\$ 48	\$ 48	\$ 48	\$ 12	\$ -	\$ 214
Safety & Security Salaried Personnel	K USD	\$ 47	\$ 140	\$ 140	\$ 140	\$ 140	\$ 35	\$ -	\$ 640
Safety & Security Hourly Personnel	K USD	\$ 16	\$ 97	\$ 97	\$ 97	\$ 97	\$ 24	\$ -	\$ 428
Environmental Salaried Personnel	K USD	\$ 48	\$ 144	\$ 144	\$ 144	\$ 144	\$ 36	\$ -	\$ 658
Human Resources Personnel	K USD	\$ 57	\$ 170	\$ 170	\$ 170	\$ 170	\$ 43	\$ -	\$ 781
<b>Total Owner Personnel Costs</b>	<b>K USD</b>	<b>\$ 200</b>	<b>\$ 673</b>	<b>\$ 673</b>	<b>\$ 673</b>	<b>\$ 673</b>	<b>\$ 168</b>	<b>\$ -</b>	<b>\$ 3,062</b>
<i>General G&amp;A Costs</i>	Units	Pre-Prod	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Total
Construction Management Expenses	K USD	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Supplies & General Maintenance	K USD	\$ 140	\$ 420	\$ 420	\$ 420	\$ 420	\$ 105	\$ -	\$ 1,925
Land Holdings	K USD	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Off Site Overhead	K USD	\$ 40	\$ 120	\$ 120	\$ 120	\$ 120	\$ 30	\$ -	\$ 550
Legal, Audits, Consulting, MSHA	K USD	\$ 60	\$ 180	\$ 180	\$ 180	\$ 180	\$ 45	\$ -	\$ 825
Computers, IT, Internet, Software, Hardware	K USD	\$ 40	\$ 120	\$ 120	\$ 120	\$ 120	\$ 30	\$ -	\$ 550
Environmental, Monitoring Wells, Reporting	K USD	\$ 120	\$ 360	\$ 360	\$ 360	\$ 360	\$ 90	\$ -	\$ 1,650
Surety Bond Fees	K USD	\$ 60	\$ 180	\$ 180	\$ 180	\$ 180	\$ 45	\$ -	\$ 825
Donations, Dues, PR	K USD	\$ 88	\$ 264	\$ 264	\$ 264	\$ 264	\$ 66	\$ -	\$ 1,210
Fees, Licenses, Misc Taxes, Insurance	K USD	\$ 80	\$ 240	\$ 240	\$ 240	\$ 240	\$ 60	\$ -	\$ 1,100
Travel, Lodging, Meals, Entertainment	K USD	\$ 40	\$ 120	\$ 120	\$ 120	\$ 120	\$ 30	\$ -	\$ 550
Telephones, Computers, Cell Phones	K USD	\$ 40	\$ 120	\$ 120	\$ 120	\$ 120	\$ 30	\$ -	\$ 550
Light Vehicle Maintenance, Fuel	K USD	\$ 140	\$ 420	\$ 420	\$ 420	\$ 420	\$ 105	\$ -	\$ 1,925
Small Tools, Janitorial, Safety Supplies	K USD	\$ 108	\$ 324	\$ 324	\$ 324	\$ 324	\$ 81	\$ -	\$ 1,485
Equipment Rentals	K USD	\$ 100	\$ 300	\$ 300	\$ 300	\$ 300	\$ 75	\$ -	\$ 1,375
Access Road Maintenance	K USD	\$ 40	\$ 120	\$ 120	\$ 120	\$ 120	\$ 30	\$ -	\$ 550
Office Power	K USD	\$ 12	\$ 35	\$ 35	\$ 35	\$ 35	\$ 9	\$ -	\$ 161
<b>Total General G&amp;A Costs</b>	<b>K USD</b>	<b>\$ 1,108</b>	<b>\$ 3,323</b>	<b>\$ 3,323</b>	<b>\$ 3,323</b>	<b>\$ 3,323</b>	<b>\$ 831</b>	<b>\$ -</b>	<b>\$ 15,231</b>
<b>Total Site G&amp;A</b>	<b>K USD</b>	<b>\$ 1,308</b>	<b>\$ 3,996</b>	<b>\$ 3,996</b>	<b>\$ 3,996</b>	<b>\$ 3,996</b>	<b>\$ 999</b>	<b>\$ -</b>	<b>\$ 18,292</b>

## 22.0 ECONOMIC ANALYSIS

### 22.1 ECONOMIC PARAMETERS AND ASSUMPTIONS

The mine and process production schedules were used along with the economic parameters to estimate the project cash-flow. The base case cash-flow assumes \$1,750/oz Au and \$21.00/oz Ag for revenue less a refining cost of \$3.00 and \$1.50 per ounce for gold and silver respectively.

The Agnico-Eagle royalty is assumed to be bought down to 1% NSR; however, the Fuller royalty is paid at the rate of 3% NSR due to the smaller amount of gold and silver ounces produced from the royalty area; however, payments of advanced minimum royalties for the Fuller claims will cover the royalty during production anticipated for this PEA.

Nevada proceeds tax has been included in the operating costs. Deductions for exploration and acquisition costs are made on a straight-line 4-year basis. Capital expenditures are depreciated on a 5-year basis. Corporate taxes are calculated assuming a 21% rate.

Other costs have been estimated as described in Section 21.

### 22.2 PEA CASH-FLOW

The PEA cash-flow analysis was completed including Inferred resources. Note that Canadian NI 43-101 guidelines define a PEA as follows:

*A preliminary economic assessment is preliminary in nature and it includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied that would enable them to be classified as mineral reserves, and there is no certainty that the preliminary assessment will be realized.*

Table 22-1 shows the physicals for the mining and processing schedule for the PEA. This shows the material processed, recoverable ounces of gold and silver placed, and the recovered (ounces produced) gold and silver. Note that the difference between the recoverable ounces and the recovered ounces are based on lag times to better predict the resulting revenues and cash flows.

**Table 22-1 PEA Physicals**

Production	Units	Pre-Prod	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Total
All Material Processed	K Tons	612	7,220	7,200	7,174	7,200	895	-	30,300
	Ozs Au/t	0.012	0.011	0.013	0.011	0.010	0.011	-	0.011
	K Ozs Au	8	83	93	81	70	10	-	344
All Recovered Metal	Recoverable Au	5	51	58	50	43	6	-	213
	K Ozs Au Rec	-	51	58	50	44	11	-	213
	Cum. Au Rec	0.0%	56.1%	59.3%	60.0%	60.5%	61.9%	61.9%	61.9%
	Ozs Ag/t	0.233	0.262	0.251	0.257	0.267	0.409	-	0.263
	K Ozs Ag	143	1,892	1,805	1,847	1,921	366	-	7,975
All Recovered Metal	Recoverable Ag	21	284	271	277	286	55	-	1,194
	K Ozs Ag Rec	-	278	277	269	276	94	-	1,194
	Cum. Ag Rec	0.0%	13.7%	14.4%	14.5%	14.5%	15.0%	15.0%	15.0%
	K Ozs AuEq Rec.	-	54	61	53	47	12	-	227
Total Wst	K Tons	1,499	6,818	3,456	2,678	2,060	72	-	16,584
Total Mined	K Tons	2,111	14,038	10,656	9,852	9,260	967	-	46,884
Strip Ratio	W:O	2.45	0.94	0.48	0.37	0.29	0.08	-	0.55

Table 22-2 shows the estimated gold and silver revenues. The net revenue totals \$391.3 million after the deduction of refining costs.

Net revenue for the Fuller royalty is calculated separate as this royalty only applies to portions of the property. The total net revenue attributable to the Fuller royalty is \$6.5 million resulting in a \$0.2 million payment through the life of mine. The Agnico Eagle royalty payments total \$4.0 million.

**Table 22-2 Revenues**

Revenues	Units	Pre-Prod	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Total
Gold Revenue	K USD	-	88,440	101,678	86,816	76,419	19,217	-	372,570
Gold Refining Costs	K USD	-	(152)	(174)	(149)	(131)	(33)	-	(639)
Silver Revenue	K USD	-	5,834	5,817	5,643	5,794	1,982	-	25,071
Silver Refining Costs	K USD	-	(417)	(416)	(403)	(414)	(142)	-	(1,791)
<b>Net Revenue</b>	K USD	-	93,705	106,906	91,908	81,668	21,025	-	395,211
Fuller Royalty Gold Revenue	K USD	-	959	5,081	20	-	-	-	6,060
Fuller Royalty Gold Refining Costs	K USD	-	(2)	(9)	(0)	-	-	-	(10)
Fuller Royalty Silver Revenue	K USD	-	53	375	1	-	-	-	429
Fuller Royalty Silver Refining Costs	K USD	-	(4)	(27)	(0)	-	-	-	(31)
<b>Fuller Royalty Net Revenue</b>	K USD	-	1,007	5,421	20	-	-	-	6,448
Agnico Royalty	K USD	-	(937)	(1,069)	(919)	(817)	(210)	-	(3,952)
Fuller Royalty	K USD	-	(30)	(163)	(1)	-	-	-	(193)
Fuller Royalty Advanced Payment Credit	K USD	320	290	127	127	127	127	127	
<b>Revenue After Royalties</b>	K USD	-	92,768	105,837	90,988	80,851	20,814	-	391,259

Table 22-3 shows the operating and capital cost estimates along with the pre-tax cash flow. Operating costs total \$248.8 million through the LOM. Capital costs are estimated to be \$66.6 million through the LOM. Deducting these numbers from the revenue estimates results in a \$142.4 million operating cash flow and \$75.8 million in before-tax cash flow.

**Table 22-3 Operating and Capital Costs and Pre-Tax Cash Flow**

Operating Costs	Units	Pre-Prod	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Total
Mining Cost	K USD	-	36,063	29,431	26,179	24,428	2,747	-	118,848
Process Cost	K USD	1,938	22,887	22,824	22,742	22,824	2,836	-	96,052
Site G&A Cost	K USD	1,308	3,996	3,996	3,996	3,996	999	-	18,292
Reclamation	K USD	-	-	-	-	-	7,575	-	7,575
Net Proceeds Tax	K USD	-	1,491	2,479	1,904	1,480	712	-	8,066
<b>Net Operating Cost</b>	<b>K USD</b>	<b>3,246</b>	<b>64,437</b>	<b>58,731</b>	<b>54,822</b>	<b>52,728</b>	<b>14,870</b>	<b>-</b>	<b>248,833</b>
<b>Capital Costs</b>									
Contractor Capital	K USD	225	-	-	-	-	200	-	425
Owner Capital	K USD	765	-	-	-	-	-	-	765
Prestripping - Contractor	K USD	10,100	-	-	-	-	-	-	10,100
Mining General Services	K USD	533	-	-	-	-	-	-	533
Process Capital	K USD	30,904	-	-	17,589	-	-	-	48,493
Site Capital	K USD	3,063	662	400	400	400	400	-	5,325
Other	K USD	1,000	-	-	-	-	-	-	1,000
<b>Sub-total</b>	<b>K USD</b>	<b>46,590</b>	<b>662</b>	<b>400</b>	<b>17,989</b>	<b>400</b>	<b>600</b>	<b>-</b>	<b>66,641</b>
Working Capital	K USD	-	10,613	-	-	-	(10,613)	-	-
<b>Total Capital</b>	<b>K USD</b>	<b>46,590</b>	<b>11,275</b>	<b>400</b>	<b>17,989</b>	<b>400</b>	<b>(10,013)</b>	<b>-</b>	<b>66,641</b>
<b>Total Cost</b>	<b>K USD</b>	<b>49,836</b>	<b>75,712</b>	<b>59,131</b>	<b>72,811</b>	<b>53,128</b>	<b>4,857</b>	<b>-</b>	<b>315,474</b>
<b>Operating Cash Flow</b>									
Operating Cash Flow	K USD	(3,246)	28,332	47,106	36,167	28,123	5,945	-	142,426
<b>Net Cash Flow (Before Tax)</b>	<b>K USD</b>	<b>(49,836)</b>	<b>17,057</b>	<b>46,706</b>	<b>18,178</b>	<b>27,723</b>	<b>15,958</b>	<b>-</b>	<b>75,786</b>
<b>Cash Cost</b>									
Cash Cost	\$/Oz AuEq	-	1,225	986	1,065	1,151	1,259	-	1,124
<b>Total Cost</b>	<b>\$/Oz AuEq</b>	<b>-</b>	<b>1,434</b>	<b>992</b>	<b>1,406</b>	<b>1,160</b>	<b>433</b>	<b>-</b>	<b>1,417</b>

Table 22-4 Shows the tax considerations along with the final after-tax cash-flow estimate. The total after-tax cash flow is estimated to be \$62.3 million with a \$46.1 after-tax NPV (5%) and a 38% internal rate of return ("IRR"). The after-tax payback period is 1.79 years for the 4 plus year mine life.

**Table 22-4 Tax Considerations and After-Tax Cash Flow**

Tax Considerations	Units	Pre-Prod	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Total
Exploration & Acquisition Amortisation	K USD	\$ -	\$ 1,530	\$ 1,530	\$ 1,530	\$ 1,530	\$ -	\$ -	\$ 6,120
Capital Allowance (20% declining balance)	K USD	\$ -	\$ 26,109	\$ 19,709	\$ 16,033	\$ 3,674	\$ 446	\$ -	\$ 65,970
Taxable Income	K USD	\$ -	\$ -	\$ 25,467	\$ 615	\$ 22,519	\$ 15,512	\$ -	\$ 64,114
Corporate Tax (21%)	K USD	\$ -	\$ -	\$ 5,348	\$ 129	\$ 4,729	\$ 3,257	\$ -	\$ 13,464
<b>Net After Tax Cash Flow</b>	<b>K USD</b>	<b>\$(49,836)</b>	<b>\$ 17,057</b>	<b>\$ 41,358</b>	<b>\$ 18,049</b>	<b>\$ 22,994</b>	<b>\$ 12,700</b>	<b>\$ -</b>	<b>\$ 62,322</b>
<b>Pre-Tax</b>									
Pre-Tax Undiscounted Cash Flow	K USD	(49,836)	17,057	46,706	18,178	27,723	15,958	-	\$ 75,786
<b>Cum. After-Tax Undiscounted Cash Flow</b>	<b>K USD</b>	<b>\$(49,836)</b>	<b>\$(32,779)</b>	<b>\$ 13,927</b>	<b>\$ 32,105</b>	<b>\$ 59,828</b>	<b>\$ 75,786</b>	<b>-</b>	<b>-</b>
<b>After Tax</b>									
After-Tax Undiscounted Cash Flow	K USD	\$(49,836)	\$ 17,057	\$ 41,358	\$ 18,049	\$ 22,994	\$ 12,700	\$ -	\$ 62,322
<b>Cum. After-Tax Undiscounted Cash Flow</b>	<b>K USD</b>	<b>\$(49,836)</b>	<b>\$(32,779)</b>	<b>\$ 8,578</b>	<b>\$ 26,627</b>	<b>\$ 49,621</b>	<b>\$ 62,322</b>	<b>-</b>	<b>-</b>
<b>After Tax Payback Calculation</b>	<b>Years</b>		<b>1.00</b>	<b>0.79</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1.79</b>
<b>After-Tax Internal Rate of Return</b>									
After-Tax Internal Rate of Return	%		38%						
After-Tax NPV (5%)	K USD		\$46,077						
After-Tax NPV (8%)	K USD		\$38,229						
After-Tax NPV (10%)	K USD		\$33,638						
After-Tax Payback Period	Years		1.79						

## 22.3 CASH-FLOW SENSITIVITY

Pre-tax cash-flow ("CF") sensitivity to metal prices were evaluated from \$1,600 to \$1,900 gold and are shown in Table 22-5. The silver price reported in Table 22-5 is based on a constant gold to silver price ratio. Note that these have been done in the cash-flow model, thus there is no change in pits or production schedules.

Table 22-5 After-Tax Cash-Flow Metal Price Sensitivity

\$/oz Au	\$/oz Ag	LOM Cash Flow	NPV @ 5%	NPV @ 8%	NPV @ 10%	IRR
		\$ K USD	\$ K USD	\$ K USD	\$ K USD	Percent
\$ 1,600	\$ 19.20	\$ 35,490	\$ 23,426	\$ 17,656	\$ 14,302	22%
\$ 1,650	\$ 19.80	\$ 44,419	\$ 30,968	\$ 24,509	\$ 20,744	28%
\$ 1,700	\$ 20.40	\$ 53,433	\$ 38,576	\$ 31,417	\$ 27,237	33%
\$ 1,750	\$ 21.00	\$ 62,322	\$ 46,077	\$ 38,229	\$ 33,638	38%
\$ 1,800	\$ 21.60	\$ 70,801	\$ 53,239	\$ 44,736	\$ 39,755	43%
\$ 1,850	\$ 22.20	\$ 79,280	\$ 60,399	\$ 51,242	\$ 45,871	48%
\$ 1,900	\$ 22.80	\$ 87,855	\$ 67,641	\$ 57,822	\$ 52,057	53%

Revenue, operating cost, and capital cost were evaluated from +/- 30% of the values in 10% increments also using the cash-flow model. Table 22-6, Table 22-7, and Table 22-8 shows the CF sensitivity results in tabular form for revenue, operating, and capital costs adjustments respectively. Figure 22-1 shows the LOM cash flow sensitivity graphically while Figure 22-2 shows the sensitivity to the NPV (5%) graphically.

Table 22-6 After-Tax Cash-Flow Revenue Sensitivity

	LOM Cash Flow	NPV @ 5%	NPV @ 8%	NPV @ 10%	IRR
	\$ K USD	\$ K USD	\$ K USD	\$ K USD	Percent
70%	\$ (43,538)	\$ (43,305)	\$ (42,957)	\$ (42,664)	-30%
80%	\$ (7,086)	\$ (12,525)	\$ (15,000)	\$ (16,389)	-5%
90%	\$ 27,683	\$ 16,829	\$ 11,662	\$ 8,669	17%
100%	\$ 62,322	\$ 46,077	\$ 38,229	\$ 33,638	38%
110%	\$ 95,179	\$ 73,859	\$ 63,487	\$ 57,390	57%
120%	\$ 126,363	\$ 100,123	\$ 87,309	\$ 79,759	74%
130%	\$ 157,272	\$ 126,138	\$ 110,896	\$ 101,901	90%

Table 22-7 After-Tax Cash-Flow Operating Cost Sensitivity

	LOM Cash Flow \$ K USD	NPV @ 5% \$ K USD	NPV @ 8% \$ K USD	NPV @ 10% \$ K USD	IRR Percent
70%	\$ 123,722	\$ 98,006	\$ 85,454	\$ 78,061	74%
80%	\$ 103,996	\$ 81,368	\$ 70,348	\$ 63,866	63%
90%	\$ 83,401	\$ 63,942	\$ 54,496	\$ 48,952	51%
100%	\$ 62,322	\$ 46,077	\$ 38,229	\$ 33,638	38%
110%	\$ 40,221	\$ 27,371	\$ 21,211	\$ 17,626	25%
120%	\$ 17,990	\$ 8,559	\$ 4,098	\$ 1,525	11%
130%	\$ (4,240)	\$ (10,254)	\$ (13,015)	\$ (14,575)	-3%

Table 22-8 After-Tax Cash-Flow Capital Cost Sensitivity

	LOM Cash Flow \$ K USD	NPV @ 5% \$ K USD	NPV @ 8% \$ K USD	NPV @ 10% \$ K USD	IRR Percent
70%	\$ 81,761	\$ 64,349	\$ 55,849	\$ 50,842	67%
80%	\$ 75,281	\$ 58,258	\$ 49,976	\$ 45,107	55%
90%	\$ 68,801	\$ 52,168	\$ 44,102	\$ 39,373	46%
100%	\$ 62,322	\$ 46,077	\$ 38,229	\$ 33,638	38%
110%	\$ 55,593	\$ 39,782	\$ 32,173	\$ 27,733	31%
120%	\$ 48,736	\$ 33,380	\$ 26,022	\$ 21,741	26%
130%	\$ 41,878	\$ 26,979	\$ 19,872	\$ 15,748	21%

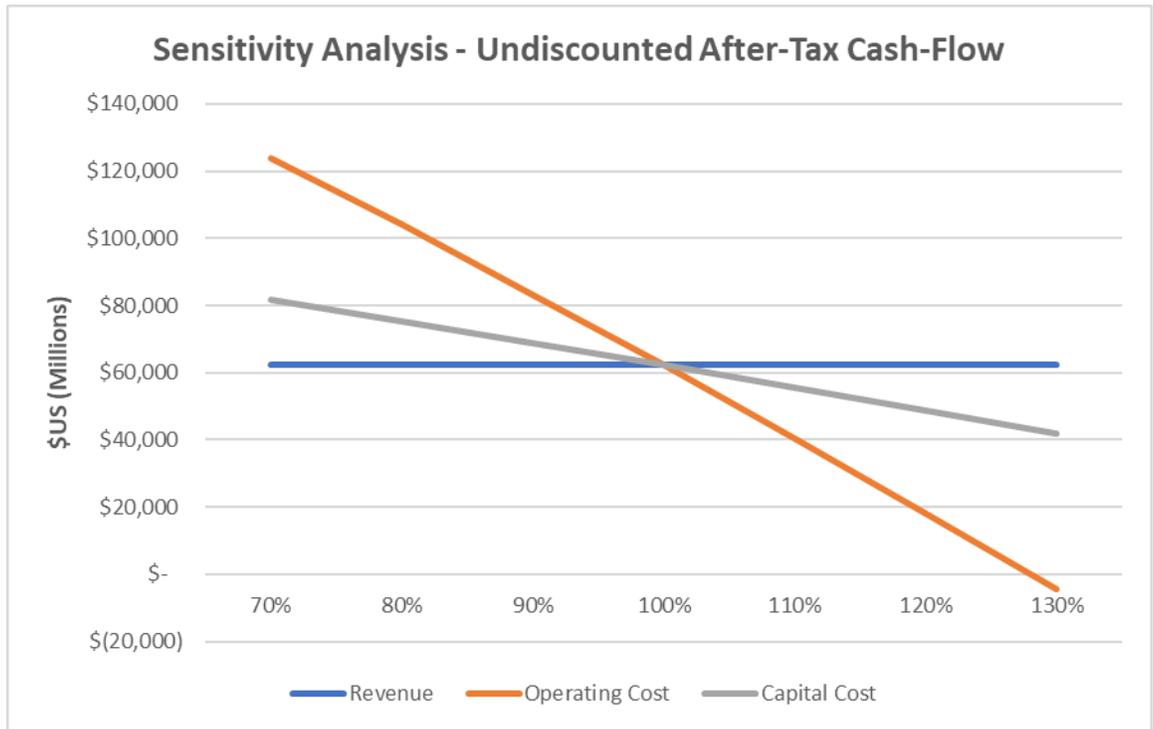


Figure 22-1. After-Tax Cash-Flow Sensitivity – Undiscounted

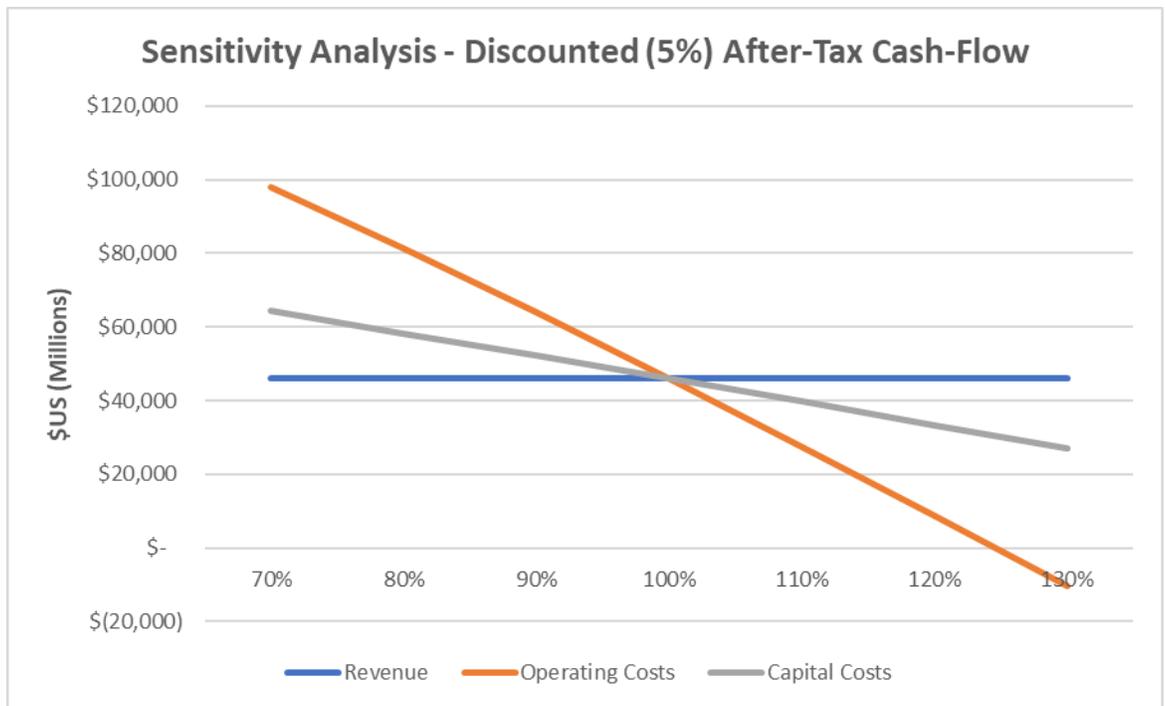


Figure 22-2. After-Tax Cash-Flow Sensitivity – NPV (5%)

## 23.0 ADJACENT PROPERTIES

There are no other known significant occurrences of gold in the immediate vicinity of Wind Mountain.

Nevada hosts many significant precious metal mines in multiple geologic environments. Volcanic-hosted systems in northern Nevada with more than a million ounces of production include Sleeper, Midas, and the Comstock, which are all located more than 100mi from the Wind Mountain property. Several other districts with smaller amounts of gold production occur within about 100mi of the Wind Mountain property.

## **24.0 OTHER RELEVANT DATA AND INFORMATION**

There is no other relevant information known to the authors that is not included in this report.

## 25.0 INTERPRETATION AND CONCLUSIONS

The Wind Mountain property is a low-sulfidation epithermal gold system that is a property of merit and warrants additional exploration as well as further economic studies. Surface sampling by Fortune River confirms the existence of strongly anomalous gold over large areas, and there is considerable exploration potential along the 1.8mi-long zone of exposed mineralization. Recent drilling by Fortune River and Bravada intersected gold and silver mineralization that is consistent with mineralization previously mined by AMAX but also discovered a deep unoxidized to partially oxidized deposit that (Deep Min) remains open ended and could increase in size.

Additional deeper drilling is warranted to determine the extent of unoxidized mineralization and to explore for higher-grade mineralization. The funnel-like shape of the Deep Min deposit suggests it was a zone of up-welling hydrothermal fluids centered on the Wind Mountain fault zone, and other zones of upwelling may exist. Lava flows of the Pyramid sequence have been encountered beneath the Truckee Formation. Fluid flow along the Wind Mountain fault may have been more constrained in the less permeable lava flows, potentially concentrating precious metals within the fault. These scenarios may represent new host targets at depth.

The 2017/2018 campaign drill-holes explored a feeder target area south of the Wind pit. One hole intersected low-grade gold and elevated mercury in tuffaceous sediments in the lower Pyramid sequence. In 2020, drill hole WM20-102 penetrated the potential feeder zone. Banded quartz veining with elevated gold and significantly high silver was intersected. Follow-up drilling in 2021 encountered similar mineralized veins at 1083ft beneath overburden and waste dumps. The potential feeder zone also represents a target at depth.

The project location and infrastructure are favorable for mine development, including: good access, favorable topography, a sparsely populated region, nearby availability of power and water, and previous disturbance of the site by mining. Should the project advance through feasibility with positive results, improvements to necessary infrastructure (power, water, access, housing, etc.) should be reasonably inexpensive. Issues of archeological resources and high geothermal temperatures at depth will need to be monitored as the program progresses, but none of these appears to constitute a significant impediment. There are no known environmental, social, or logistical impediments to developing a mine at Wind Mountain.

The PEA demonstrates that the Wind Mountain gold-silver project may be developed as an economic mine; however, the low-grade nature of the remaining resources makes the mitigation of the project's risks crucial.

## 26.0 RECOMMENDATIONS

- / Recommendations for QA/QC protocols include continued use of coarse blanks rather than pulp blanks, collect field duplicate and split preparation duplicate from coarse reject samples, assay both original and field duplicates at the same laboratory, continue to evaluate, investigate, and remediate CRM and blank assays failures upon receipt, insert CRM pulps in a manner that is blind to the assay laboratory, and send pulp splits for check assays to a referee laboratory.
- / Changes in metallurgical recoveries occur within and around the PEA pits, so additional work testing for spatial changes and defining the magnitude of those changes to metallurgical recoveries should be done. The testwork is minimal consisting of CN shaker tests but may require additional drilling. The first step is to do the testwork on those Fortune River and Bravada pulps that exist (\$10,000). Based on the results of that work, additional drilling may be required for pre-feasibility level work to obtain metallurgical samples within limits of the PEA pits.
- / Although preliminary indications are that much of the resource is oxidized, preparation of a metallurgical model is recommended. RESPEC estimates the cost of this work will be \$10,000 but will require the previous bullet item of spatial variability testwork to be completed.
- / Additional metallurgical studies should be conducted to determine recoveries of gold and silver similar to the remaining resources. RESPEC estimates the cost for these studies to be approximately \$72,000 USD.
- / Prior to developing new mining and heap leaching facilities at Wind Mountain, additional baseline data may be required in the proposed heap leach facility area. Collection of the baseline data will require addition of two or more monitor wells at an estimated cost of \$50,000 for two wells.
- / Additional reconciliation work should be conducted to better understand the bias between the resource model and blasthole silver grades. This should be done to increase the confidence in silver grade estimates. RESPEC estimates these costs to be approximately \$20,000.
- / A geotechnical study will need to be completed for pre-feasibility study. The goal of this study should be to provide pit slope recommendations to a pre-feasibility level and suggest any additional geotechnical study or data gathering that would need to be completed prior to putting the property into production. RESPEC estimates the cost of this study to be approximately \$60,000.
- / A hydrology study will be required to identify water sources for the project prior to putting the property into production. RESPEC estimates the cost of this study to be approximately \$50,000.
- / As the PEA economics shows a positive return on investment, the project should be elevated to a pre-feasibility-level study. The pre-feasibility study should incorporate many of the recommendations listed above. In addition, a trade-off study between crushing and ROM leaching should be revisited with updated costs and recoveries. RESPEC estimates the cost of a pre-feasibility study but excluding testwork and drilling necessary to elevate the project's data to pre-feasibility level, to be approximately \$200,000.
- / If the testwork suggests that the dumps and leach pads are potentially economic from an extraction standpoint, drilling the dumps, and if warranted, the heaps, should elevate some of

that material to resource class. RESPEC estimates drilling, sampling, and modeling of the dumps to cost approximately \$100,000.

- / There is good exploration potential to find additional deposits of oxidized gold mineralization beneath relatively shallow post-mineralization gravel and lake sediments at the North Hill and Zephyr targets (Figure 4-2). Approximately 2000ft of drilling in four holes is recommended at each of these targets for a total cost of \$196,000 for both targets. Additional drilling would be contingent upon the success of this initial program. Additional geological studies to help in targeting deeper and potentially higher-grade mineralization is recommended as is exploration drilling for shallower oxide deposits. Bravada may access some of the geothermal holes planned to be drilled nearby by the geothermal company, and in so doing could gain insight for additional exploration.

Table 26-1 Estimated Budget for the Recommendations

Item	Estimated Cost
Pulp sample CN Shaker tests	\$ 10,000
Metallurgical modeling	\$ 10,000
Metallurgical studies	\$ 72,000
Baseline data documentation	\$ 50,000
Silver reconciliation work	\$ 20,000
Geotechnical Studies	\$ 60,000
Hydrological study	\$ 50,000
Pre-Feasibility study	\$ 200,000
Drilling of dumps	\$ 100,000
Exploration drilling	\$ 196,000
<b>Total</b>	<b>\$ 768,000</b>

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## 28.0 DATE AND SIGNATURE PAGE

Effective Date of report: January 20, 2023  
The data on which the Preliminary Economic Assessment is based were current as of the Effective Date.

Completion Date of report: January 20, 2023

*"Michael S. Lindholm"*  
Michael S. Lindholm, C.P.G.

Date Signed: January 20, 2023

*"Thomas L. Dyer"*  
Thomas L. Dyer, P.E.

Date Signed: January 20, 2023

*"Jeffrey L. Woods"*  
Jeffrey L. Woods, SME MMSA

Date Signed: January 20, 2023

## 29.0 CERTIFICATE OF AUTHORS

Michael S. Lindholm

I, Michael S. Lindholm, C.P.G. (AIPG) and Professional Geologist (California), do hereby certify that:

1. I am currently employed as Principal Geologist by RESPEC Company LLC (formerly Mine Development Associates, Inc.) ("RESPEC") with an office at 210 South Rock Blvd., Reno, Nevada 89502.
2. This certificate applies to the technical report titled "Updated Technical Report and Preliminary Economic Assessment, Wind Mountain Gold-Silver Project", with an effective date of January 20, 2023 (the "**Technical Report**") prepared for Bravada Gold Corporation. ("**Bravada**").
3. I graduated with a Bachelor of Science degree in Geology from Stephen F. Austin State University in 1984 and a Master of Science degree in Geology from Northern Arizona University in 1989.
4. I am a Certified Professional Geologist in good standing with the American Institute of Professional Geologists (#11477). I am also registered as a Professional Geologist in the state of California (#8152).
5. I have worked as a geologist for more than 30 years. I have previously conducted exploration, definition, modeling and estimation in respect of low-sulfidation epithermal precious metal deposits similar to the Wind Mountain Gold-Silver Project in the western United States, southern Argentina and Uruguay.
6. I have read the definition of "qualified person" set out in National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by reason of my education, affiliation with certified professional associations and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
7. I visited the Wind Mountain Gold-Silver Project site on April 13, 2022.
8. I am responsible for Sections 1 through 11 and Section 14 and co-responsible for Sections 1.8, 25 and 26 of the Technical Report.
9. I am independent of Bravada and all of its subsidiaries as described in Section 1.5 of NI 43-101.
10. Prior to RESPEC's current work on the Wind Mountain Gold-Silver Project, I have had no involvement with the property that is the subject of the Technical Report.
11. I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance with that instrument and form.
12. 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 that is required to be disclosed to make the parts of the Technical Report for which I am responsible for not misleading.

Dated this 20th day of January, 2023.

*"Michael S. Lindholm"*

*[signed and sealed]*

Michael S. Lindholm, C.P.G. (#11477)



THOMAS L. DYER, P.E.

I, Thomas L. Dyer, P. E., do hereby certify that I am currently employed as Principal Engineer by RESPEC LLC, 210 South Rock Blvd., Reno, Nevada 89502 and:

1. I graduated with a Bachelor of Science degree in Mine Engineering from South Dakota School of Mines & Technology in 1996. I have worked as a mining engineer for a total of 27 years since my graduation.
2. I am a Registered Professional Engineer in the state of Nevada (#15729) and a SME founding registered member in good standing (#4029995).
3. 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 estimating reserves for open pit mines throughout the world along with economic analysis, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
4. This certificate applies to the technical report titled "Updated Technical Report and Preliminary Economic Assessment, Wind Mountain Gold-Silver Project", with an effective date of January 20, 2023 (the "**Technical Report**") prepared for Bravada Gold Corporation. ("**Bravada**"). I take co-responsibility for Sections 1, and full responsibility for Sections 15 through 22 except for section 17. I am also responsible for Sections 24 through 26 where it relates to mining and costs and economic results. My reliance on other experts is identified in 3.0.
5. I have had prior involvement with the Wind Mountain property that is the subject of the Technical Report and co-authored a 2010 Technical Report on the same property for Fortune River Resource Corp followed by an updated and revised report dated May 11, 2014. I visited the Wind Mountain Gold project property on February 3, 2010, and most recently on April 13, 2022.
6. As of the date of the certificate, to the best of my knowledge, information and belief, the Technical Report contains the necessary technical information that is required to make the Technical Report not misleading.
7. I am independent of Bravada Gold Corp. and all their subsidiaries as defined in Section 1.5 of NI 43-101 and in Section 1.5 of the Companion Policy to NI 43-101.
8. 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.
10. A copy of this report is submitted as a computer readable file in Adobe Acrobat© PDF© format. The requirements of electronic filing necessitate submitting the report as an unlocked, editable file. I accept no responsibility for any changes made to the file after it leaves my control.
11. I consent to the filing of the Technical Report with any securities regulatory authority, stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this 20th day of January, 2023.

*Thomas L. Dyer*

Thomas L. Dyer, P.E. (#15729)  
Print Name of Qualified Person

JEFFREY L. WOODS

I, Jeffrey L. Woods, SME MMSA QP, do hereby certify that I am currently employed as President and Principal Consulting Metallurgist by Woods Process Services LLC, 10585 Dillingham Dr. Reno NV 89521 and:

1. I graduated from the Mackay School of Mines, University of Nevada, Reno, Nevada, U.S.A., in 1988 with a Bachelor of Science degree in Metallurgical Engineering.
2. I am a member in good standing of Society for Mining, Metallurgy and Exploration, membership #4018591 and a registered member of the Mining and Metallurgical Society of America, membership #01368QP.
3. I have practiced my profession continuously for 34 years since graduation.
4. I have been directly involved in international mine operations, technical services, project development and consulting for various commodities, metals, deposits, and processes.
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 not visited the Wind Mountain Project at the time of writing.
7. I am responsible for Sections 13, and 17 contributions to Section 21 of the Technical Report.
8. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
9. I have not had prior involvement with the property that is the subject of the Technical Report.
10. I have read NI 43-101 and the Technical Report sections for which I am responsible have been prepared in compliance with that Instrument.
11. As of the effective date of the Technical Report, to the best of my knowledge, information, and belief, the sections of the Technical Report that I am responsible for, contain all scientific and technical information that is required to be disclosed to make those sections of the technical report not misleading.
12. A copy of this report is submitted as a computer readable file in Adobe Acrobat® PDF® format. The requirements of electronic filing necessitate submitting the report as an unlocked, editable file. I accept no responsibility for any changes made to the file after it leaves my control.
13. I consent to the filing of the Technical Report with any securities regulatory authority, stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this 20th day of January, 2023.

(signed/sealed) *Jeffery L. Woods*

Jeffrey L. Woods, SME-RM MMSA-RM QP



# APPENDIX A

## LIST OF CLAIMS FOR THE WIND MOUNTAIN PROJECT





APPENDIX A:

**List of Claims for the Wind Mountain Project**

Location: All claims are located in Sections 3, 4, and 10, T 29 N, R 23 E, and in Sections 21, 22, 27, 28, 33, and 34, T 30 N, R 23 E in Washoe County, Nevada.

<b>BLM SERIAL NUMBER (NMC#)</b>	<b>CLAIM NAME</b>	<b>Ownership</b>	<b>Location Date</b>
865498	EMP 22	Rio Fortuna Exploration (U.S.) Inc.	1/16/2004
865500	EMP 24	Rio Fortuna Exploration (U.S.) Inc.	1/15/2004
865501	EMP 25	Rio Fortuna Exploration (U.S.) Inc.	1/15/2004
865502	EMP 26	Rio Fortuna Exploration (U.S.) Inc.	1/15/2004
865503	EMP 27	Rio Fortuna Exploration (U.S.) Inc.	1/15/2004
865504	EMP 28	Rio Fortuna Exploration (U.S.) Inc.	1/15/2004
865505	EMP 29	Rio Fortuna Exploration (U.S.) Inc.	1/15/2004
865506	EMP 30	Rio Fortuna Exploration (U.S.) Inc.	1/15/2004
865507	EMP 31	Rio Fortuna Exploration (U.S.) Inc.	1/15/2004
865508	EMP 32	Rio Fortuna Exploration (U.S.) Inc.	1/15/2004
865509	EMP 33	Rio Fortuna Exploration (U.S.) Inc.	1/15/2004
865510	EMP 34	Rio Fortuna Exploration (U.S.) Inc.	1/15/2004
865511	EMP 35	Rio Fortuna Exploration (U.S.) Inc.	1/15/2004
865512	EMP 36	Rio Fortuna Exploration (U.S.) Inc.	1/15/2004
865543	EMP 67	Rio Fortuna Exploration (U.S.) Inc.	1/13/2004
865545	EMP 69	Rio Fortuna Exploration (U.S.) Inc.	1/13/2004
865547	EMP 71	Rio Fortuna Exploration (U.S.) Inc.	1/13/2004
865549	EMP 73	Rio Fortuna Exploration (U.S.) Inc.	1/13/2004
865551	EMP 75	Rio Fortuna Exploration (U.S.) Inc.	1/13/2004
865553	EMP 77	Rio Fortuna Exploration (U.S.) Inc.	1/13/2004
922680	EMP 1	Rio Fortuna Exploration (U.S.) Inc.	1/27/2006
922681	EMP 2	Rio Fortuna Exploration (U.S.) Inc.	1/27/2006
922682	EMP 3	Rio Fortuna Exploration (U.S.) Inc.	1/27/2006
922683	EMP 4	Rio Fortuna Exploration (U.S.) Inc.	1/27/2006
922684	EMP 5	Rio Fortuna Exploration (U.S.) Inc.	1/27/2006
922686	EMP 7	Rio Fortuna Exploration (U.S.) Inc.	1/27/2006
922693	EMP 21	Rio Fortuna Exploration (U.S.) Inc.	1/27/2006
922694	EMP 23	Rio Fortuna Exploration (U.S.) Inc.	1/27/2006
922699	EMP 41	Rio Fortuna Exploration (U.S.) Inc.	1/27/2006
922700	EMP 42	Rio Fortuna Exploration (U.S.) Inc.	1/27/2006
922701	EMP 43	Rio Fortuna Exploration (U.S.) Inc.	1/27/2006
922702	EMP 44	Rio Fortuna Exploration (U.S.) Inc.	1/27/2006
922703	EMP 45	Rio Fortuna Exploration (U.S.) Inc.	1/27/2006



<b>BLM SERIAL NUMBER (NMC#)</b>	<b>CLAIM NAME</b>	<b>Ownership</b>	<b>Location Date</b>
922704	EMP 46	Rio Fortuna Exploration (U.S.) Inc.	1/27/2006
922716	EMP 68	Rio Fortuna Exploration (U.S.) Inc.	1/27/2006
922717	EMP 70	Rio Fortuna Exploration (U.S.) Inc.	1/27/2006
922718	EMP 72	Rio Fortuna Exploration (U.S.) Inc.	1/27/2006
922719	EMP 74	Rio Fortuna Exploration (U.S.) Inc.	1/27/2006
922720	EMP 76	Rio Fortuna Exploration (U.S.) Inc.	1/27/2006
922721	EMP 78	Rio Fortuna Exploration (U.S.) Inc.	1/27/2006
922722	EMP 79	Rio Fortuna Exploration (U.S.) Inc.	1/27/2006
922723	EMP 80	Rio Fortuna Exploration (U.S.) Inc.	1/27/2006
922724	EMP 81	Rio Fortuna Exploration (U.S.) Inc.	1/27/2006
922725	EMP 82	Rio Fortuna Exploration (U.S.) Inc.	1/27/2006
922726	EMP 83	Rio Fortuna Exploration (U.S.) Inc.	1/27/2006
922727	EMP 84	Rio Fortuna Exploration (U.S.) Inc.	1/27/2006
922728	EMP 85	Rio Fortuna Exploration (U.S.) Inc.	1/27/2006
922729	EMP 86	Rio Fortuna Exploration (U.S.) Inc.	1/27/2006
949882	EMP 102	Rio Fortuna Exploration (U.S.) Inc.	2/21/2007
949888	EMP 108	Rio Fortuna Exploration (U.S.) Inc.	2/21/2007
949890	EMP 110	Rio Fortuna Exploration (U.S.) Inc.	2/21/2007
949892	EMP 112	Rio Fortuna Exploration (U.S.) Inc.	2/21/2007
949894	EMP 114	Rio Fortuna Exploration (U.S.) Inc.	2/21/2007
924674	EMPF 1	Rio Fortuna Exploration (U.S.) Inc.	4/4/2006
924675	EMPF 2	Rio Fortuna Exploration (U.S.) Inc.	4/4/2006
924676	EMPF 3	Rio Fortuna Exploration (U.S.) Inc.	4/4/2006
924677	EMPF 4	Rio Fortuna Exploration (U.S.) Inc.	4/4/2006
924680	EMPF 7	Rio Fortuna Exploration (U.S.) Inc.	4/12/2006
924681	EMPF 8	Rio Fortuna Exploration (U.S.) Inc.	4/12/2006
924682	EMPF 9	Rio Fortuna Exploration (U.S.) Inc.	4/4/2006
924685	EMPF 12	Rio Fortuna Exploration (U.S.) Inc.	4/21/2006
924686	EMPF 13	Rio Fortuna Exploration (U.S.) Inc.	4/21/2006
924688	EMPF 15	Rio Fortuna Exploration (U.S.) Inc.	4/12/2006
924689	EMPF 19	Rio Fortuna Exploration (U.S.) Inc.	4/4/2006
1035938	WM 9	Rio Fortuna Exploration (U.S.) Inc.	11/16/2010
1035939	WM 10	Rio Fortuna Exploration (U.S.) Inc.	11/16/2010
1035940	WM 11	Rio Fortuna Exploration (U.S.) Inc.	11/16/2010
1035941	WM 12	Rio Fortuna Exploration (U.S.) Inc.	11/16/2010
1035942	WM 13	Rio Fortuna Exploration (U.S.) Inc.	11/16/2010
1035943	WM 14	Rio Fortuna Exploration (U.S.) Inc.	11/16/2010



<b>BLM SERIAL NUMBER (NMC#)</b>	<b>CLAIM NAME</b>	<b>Ownership</b>	<b>Location Date</b>
1035944	WM 15	Rio Fortuna Exploration (U.S.) Inc.	11/16/2010
1035945	WM 16	Rio Fortuna Exploration (U.S.) Inc.	11/16/2010
1035946	WM 17	Rio Fortuna Exploration (U.S.) Inc.	11/16/2010
1035947	WM 18	Rio Fortuna Exploration (U.S.) Inc.	11/16/2010
1035948	WM 28	Rio Fortuna Exploration (U.S.) Inc.	11/16/2010
1035949	WM 30	Rio Fortuna Exploration (U.S.) Inc.	11/16/2010
1035950	WM 32	Rio Fortuna Exploration (U.S.) Inc.	11/16/2010
1035951	WM 34	Rio Fortuna Exploration (U.S.) Inc.	11/16/2010
1035952	WM 36	Rio Fortuna Exploration (U.S.) Inc.	11/16/2010
1086308	WM 302	Rio Fortuna Exploration (U.S.) Inc.	12/5/2012
1086309	WM 303	Rio Fortuna Exploration (U.S.) Inc.	12/5/2012
1086310	WM 304	Rio Fortuna Exploration (U.S.) Inc.	12/5/2012
1086311	WM 305	Rio Fortuna Exploration (U.S.) Inc.	12/5/2012
1086312	WM 306	Rio Fortuna Exploration (U.S.) Inc.	12/5/2012
1086313	WM 307	Rio Fortuna Exploration (U.S.) Inc.	12/5/2012
1086796	WM 505	Rio Fortuna Exploration (U.S.) Inc.	1/24/2013
1086797	WM 506	Rio Fortuna Exploration (U.S.) Inc.	1/24/2013
1104444	VT 1	Rio Fortuna Exploration (U.S.) Inc.	9/10/2014
1104445	VT 2	Rio Fortuna Exploration (U.S.) Inc.	9/10/2014
1104446	VT 3	Rio Fortuna Exploration (U.S.) Inc.	9/10/2014
1104447	VT 4	Rio Fortuna Exploration (U.S.) Inc.	9/10/2014
1104448	VT 5	Rio Fortuna Exploration (U.S.) Inc.	9/10/2014
1104449	VT 6	Rio Fortuna Exploration (U.S.) Inc.	9/10/2014
1104450	VT 7	Rio Fortuna Exploration (U.S.) Inc.	9/10/2014
1104451	VT 8	Rio Fortuna Exploration (U.S.) Inc.	9/10/2014
1104452	VT 9	Rio Fortuna Exploration (U.S.) Inc.	9/10/2014
1104453	VT 10	Rio Fortuna Exploration (U.S.) Inc.	9/10/2014
1104454	VT 11	Rio Fortuna Exploration (U.S.) Inc.	9/10/2014
1104455	VT 12	Rio Fortuna Exploration (U.S.) Inc.	9/10/2014
1104456	VT 13	Rio Fortuna Exploration (U.S.) Inc.	9/10/2014
1104457	VT 14	Rio Fortuna Exploration (U.S.) Inc.	9/10/2014
1104458	VT 15	Rio Fortuna Exploration (U.S.) Inc.	9/10/2014
1104459	VT 16	Rio Fortuna Exploration (U.S.) Inc.	9/10/2014
1104460	VT 17	Rio Fortuna Exploration (U.S.) Inc.	9/10/2014
1104461	VT 18	Rio Fortuna Exploration (U.S.) Inc.	9/10/2014
1104462	VT 19	Rio Fortuna Exploration (U.S.) Inc.	9/10/2014
1104463	VT 20	Rio Fortuna Exploration (U.S.) Inc.	9/10/2014



<b>BLM SERIAL NUMBER (NMC#)</b>	<b>CLAIM NAME</b>	<b>Ownership</b>	<b>Location Date</b>
1104464	VT 21	Rio Fortuna Exploration (U.S.) Inc.	9/10/2014
1104465	VT 22	Rio Fortuna Exploration (U.S.) Inc.	9/10/2014
1104466	VT 23	Rio Fortuna Exploration (U.S.) Inc.	9/10/2014
1104467	VT 24	Rio Fortuna Exploration (U.S.) Inc.	9/10/2014
1104468	VT 25	Rio Fortuna Exploration (U.S.) Inc.	9/10/2014
1104469	VT 26	Rio Fortuna Exploration (U.S.) Inc.	9/10/2014
1103826	ZR 27	Rio Fortuna Exploration (U.S.) Inc.	8/7/2014
852569	WIND NO 1	Harold L. Fuller	7/27/2003
852570	WIND NO 2	Harold L. Fuller	7/27/2003
852571	WIND NO 3	Harold L. Fuller	7/27/2003
852572	WIND NO 4	Harold L. Fuller	7/27/2003
852573	WIND NO 5	Harold L. Fuller	7/27/2003
852574	WIND NO 6	Harold L. Fuller	7/27/2003
852575	WIND NO 7	Harold L. Fuller	7/27/2003
852576	WIND NO 8	Harold L. Fuller	7/27/2003
852577	WIND NO 9	Harold L. Fuller	7/27/2003
852578	WIND NO 10	Harold L. Fuller	7/27/2003



# **APPENDIX B**

## **LIST OF STANDARD FAILURES**



Appendix B

List of Standard Failures

Failure List (using supplier's statistics)						
Sample ID	MEG ID	Lab Job ID	Analytical Method	Au ppb final	UCL	LCL
<b>Gold MEG-Au.09.01</b>						
WM11-033 253'	MEG-Au.09.01	11-338-04336-01	Au_ppm_FAA	774	735	639
WM11-049 53'	MEG-Au.09.01	11-338-04832-01	Au_ppm_FAA	745	735	639
WM11-056 253'	MEG-Au.09.01	11-338-05745-01	Au_ppm_FAA	739	735	639
WM11-065 253'	MEG-Au.09.01	11-338-06397-01	Au_ppm_FAA	753	735	639
WM11-074 53'	MEG-Au.09.01	11-338-06787-01	Au_ppm_FAA	830	735	639
WM11-072 53'	MEG-Au.09.01	11-338-06789-01	Au_ppm_FAA	768	735	639
WM11-075 53'	MEG-Au.09.01	11-338-07311-01	Au_ppm_FAA	827	735	639
WM11-032 53'	MEG-Au.09.01	11-338-04335-01	Au_ppm_FAA	631	735	639
WM11-048 53'	MEG-Au.09.01	11-338-04793-01	Au_ppm_FAA	552	735	639
<b>Silver MEG-Au.09.01</b>						
no failures						
<b>Gold MEG-Au.09.02</b>						
no failures						
<b>Silver MEG-Au.09.02</b>						
no failures						
<b>Gold MEG-Au.09.03</b>						
WM11-039 53'	MEG-Au.09.03	11-338-04547-01	Au_ppm_FAA	2950	2588	1592
WM11-066 253'	MEG-Au.09.03	11-338-06795-01	Au_ppm_FAA	3203	2588	1592
<b>Silver MEG-Au.09.03</b>						
WM11-058 53'	MEG-Au.09.03	11-338-05747-01	unknown	2.066	22.7	11.8
<b>Gold S104007X</b>						
WM08020 893	MEG JOB # S104007X	08-338-01422-01	FAA	808	798	702
WMO7013 273	MEG JOB # S104007X	07-338-01167-01	FAA	680	798	702
WM08020 453	MEG JOB # S104007X	08-338-01347-01	FAA	682	798	702
<b>Gold S104008X</b>						
WM07005 793	MEG JOB # S104008X	07-338-00539-01	FAA	718	713	611
<b>Gold S104010X</b>						



RESPEC

Failure List (using supplier's statistics)

Sample ID	MEG ID	Lab Job ID	Analytical Method	Au ppb final	UCL	LCL
no failures						
<b>Gold S104011X</b>						
no failures						
<b>Gold S105001X</b>						
no failures						
<b>Gold S105002X</b>						
no failures						
<b>Gold S105003X</b>						
WM07012 143	MEG JOB# S105003X	07-338-01166- 01	FAA	380	603	447
<b>Gold S105004X</b>						
WM08026 1003	MEG-S105004X	08-338-02434- 01	Au_ppb_GRAV	4800	4352	3152
<b>Gold S105005X</b>						
WM08024 773	MEG-S105005X	08-338-02027- 01	FAA	2060	2665	2167
<b>Gold S105006X</b>						
WM08017 1113	MEG-S105006X	08-338-00237- 01	Au_ppb_GRAV	4868	4813	4219
<b>Gold S107001X</b>						
WM08023 953	MEG-S107001X	08-338-01949- 01	FAA	200	258	210
<b>Gold S107002X</b>						
WM08023 493	MEG JOB #S107002X	08-338-01929- 01	FAA	300	1124	806
<b>Gold S107005X</b>						
no failures						
<b>Gold S107008X</b>						
no failures						
<b>Gold S107009X</b>						
no failures						
<b>Gold S107020X</b>						
WM08018 473	MEG-S107020X	08-338-01010- 01	FAA	432	422	218

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