

**RESOURCE ESTIMATE FOR THE
BLUE MOON MASSIVE SULPHIDE OCCURRENCE**

**Township 4 South, Range 16 East MDB&M
Mariposa County, California**

Latitude: 37°34'N

Longitude: 120°15'W

Submitted to:
Blue Moon Zinc Corp
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1.0 SUMMARY

The authors were retained by Mr. Patrick McGrath, President and CEO of Blue Moon Zinc Corp. to prepare an independent Technical Report on the Blue Moon deposit in California. The purpose of this report is to update a report prepared by Morris and Giroux in January 2008. This Technical Report conforms to NI 43-101 Standards of Disclosure for Mineral Projects. Lawrence J. O'Connor of Reno, Nevada carried out three separate on-site inspections of the property between June 6th through the 8th, on July 25th and 26th, and from September 19th through 21st, 2017. While no additional drilling has been completed since the 2008 Resource estimate, author Gary Giroux has updated the resource using current metal prices and new CIM (2014) classification definitions.

The Blue Moon property hosts a polymetallic volcanogenic massive sulphide deposit located in central California approximately 22 miles northeast of Merced and 120 miles east, southeast of San Francisco.

The Blue Moon deposit hosts an and indicated resource of 3.7 million tons grading 5.09% Zn, 0.57% Cu, 0.23% Pb, 1.25 oz/ton Ag, and 0.03 oz/ton Au, (8.3% Zinc Equivalent (ZnEq)) and inferred resource of 4.1 million tons grading 4.82% Zn, 0.35% Cu, 0.35% Pb, 1.41 oz/ton Ag, and 0.04 oz/ton Au (7.8% ZnEq) within the mineralized zones and using a ZnEq cut-off of 4%. The resource estimate is shown below. See also Section 14, Mineral Resource Estimate for additional detail.

Table 1-1 Blue Moon Mineralized Portion of Blocks – Classed Indicated

Cut-Off ZnEq (%)	Tons > Cut-Off (tons)	Grade > Cut-Off					ZnEq (%)	Contained Metal				
		Zn	Cu	Ag	Au	Pb		Mlbs	Mlbs	Mlbs	Mozs	Mozs
		(%)	(%)	(oz/t)	(oz/t)	(%)		Zn	Cu	Pb	Ag	Au
1.0	6,210,000	3.60	0.40	0.88	0.02	0.17	5.88	446.75	49.80	21.11	5.47	0.149
2.0	5,220,000	4.12	0.46	1.01	0.03	0.19	6.72	430.44	47.71	19.42	5.27	0.141
3.0	4,220,000	4.73	0.53	1.16	0.03	0.22	7.74	399.30	44.90	18.15	4.89	0.135
4.0	3,700,000	5.09	0.57	1.25	0.03	0.23	8.33	376.73	42.40	17.24	4.63	0.126
5.0	3,160,000	5.50	0.62	1.35	0.04	0.25	8.99	347.79	39.18	16.05	4.26	0.114
6.0	2,620,000	6.00	0.66	1.43	0.04	0.27	9.71	314.24	34.74	14.25	3.76	0.100
7.0	2,130,000	6.53	0.71	1.46	0.04	0.29	10.45	277.97	30.20	12.14	3.10	0.087
8.0	1,660,000	7.11	0.77	1.49	0.04	0.29	11.28	236.09	25.46	9.69	2.47	0.073

Table 1-2 Blue Moon Mineralized Portion of Blocks - Classed Inferred

Cut-Off ZnEq (%)	Tons > Cut-Off (tons)	Grade > Cut-Off					ZnEq (%)	Contained Metal				
		Zn	Cu	Ag	Au	Pb		Mlbs	Mlbs	Mlbs	Mozs	Mozs
		(%)	(%)	(oz/t)	(oz/t)	(%)		Zn	Cu	Pb	Ag	Au
1.0	12,140,000	2.40	0.23	0.67	0.02	0.17	4.00	581.75	55.84	40.55	8.10	0.231
2.0	7,840,000	3.25	0.27	0.95	0.03	0.24	5.40	508.97	42.18	36.85	7.45	0.204
3.0	5,160,000	4.20	0.32	1.25	0.03	0.31	6.93	433.85	32.82	32.10	6.44	0.175
4.0	4,090,000	4.82	0.35	1.41	0.04	0.35	7.84	394.52	28.38	28.55	5.76	0.155
5.0	3,330,000	5.39	0.38	1.53	0.04	0.38	8.61	358.91	25.04	25.24	5.09	0.130
6.0	2,710,000	5.91	0.40	1.64	0.04	0.41	9.32	320.48	21.73	22.06	4.43	0.111
7.0	2,060,000	6.55	0.43	1.80	0.04	0.44	10.21	269.90	17.63	18.21	3.71	0.091
8.0	1,430,000	7.32	0.46	2.12	0.05	0.49	11.41	209.44	13.27	13.96	3.04	0.069

The Blue Moon property is controlled by Blue Moon Zinc Corp. through its wholly owned subsidiary, Keystone Mines Inc., an Idaho Corporation. The property consists of three distinct land tenure components that cover approximately 445 acres, including:

- 1) Three patented mineral claims (American Eagle, Blue Bell, and Bonanza) owned 100% by Keystone Mines Inc.
- 2) Eight Federal Lode claims (Red Cloud 1-8) held 100% by Keystone Mines Inc. and subject to two 1% NSR agreements with private individuals, both capped at US\$700,000.
- 3) 100% interest in the mineral rights from two Spanish Land Grants of the James Gann Jr. Trust of 1991, now owned by Keystone Mines Inc. in conjunction with a surface rights lease agreement, pursuant to an option purchase agreement completed in 2001 for US\$300,000.

The Blue Moon deposit is one of numerous such deposits and occurrences in the Foothills Massive Sulphide Belt in the foothills of the Sierra Nevada Mountains of California. The property has a long history of exploration and saw small-scale mining during World War II. Exploration, using modern models for genesis and controls of such deposits, during the 1980's and 1990's, led to an economic scoping study which indicated that additional drilling would be required so that a feasibility study can be completed. Previous exploration has defined numerous exploration targets, both as downward extensions of the Blue Moon deposit and along strike of the deposit within the favourable felsic volcanic rocks.

The main priority exploration target is the down dip continuation of the Blue Moon mineralization. Drilling is warranted to test for the continuation of the thin high-grade massive sulphide mineralization forming the East lens defined by holes CH-13, 14, 32, 56, and 58. The high gold and Zn/Zn + Cu and Pb/Zn + Pb ratios are suggestive that this mineralization occurs at the edge of a massive sulphide lens. The 690 feet long plunge length defined thus far in these drillholes is very encouraging. The shaft pilot hole on section 8000N is well located to serve as a "mother" hole from which a series of fan holes could be completed to test this target.

The second high priority exploration target has been defined in the location of drillhole B 70, south of the American Eagle Zone. This target flanks a large domal thickening of aphyric rhyolite in a position similar to the location of the West and Main zones of the Blue Moon deposit. The extent of alteration and mineralization suggests a large mineralizing system in this area. Of particular interest is an 800 foot long coincident gold, zinc and copper anomaly covering the exhalite horizon south of the mineralized bodies which is untested by drilling. The anomaly is defined by values greater than 50 ppb gold, 256 ppm zinc and 100 ppm copper. This geochemical anomaly is also a coincident induced polarization chargeability anomaly as defined by greater than 15 milliseconds. The potential to expand the current resources is considered excellent.

The author completed three separate site visits during the summer of 2017 to confirm a variety of details and data relevant to the project as stipulated in previous reports. The visits included reviewing county assessor files and the U.S. Bureau of Land Management (BLM) land files for ownership verification, pulling drill core samples for review, verifying drill logs correspond with core runs, cross checking assay certificates with core, field checking of drill site locations with collar coordinates and visiting mineralized exposures in the Blue Moon, American Eagle, and the Lone Oak areas.

Given the advanced stage of this project, it is reasonable to carry out a preliminary economic assessment study to update the existing economic potential of the deposit.

Blue Moon Project

It is recommended that at least two areas be further drilled to add to the potential resource on the property. These priority areas include the East zone extension and the B-70 target area which is located south and down dip of the well-defined resources. It is concluded that more drilling is required to increase the confidence in the Inferred Mineral Resources. The ore body remains open at depth and will require additional definition drilling.

An exploration program, consisting of 15 diamond drillholes for a total 17,200 feet is recommended. Inclusive of a contingency, preliminary geotechnical work, ARD studies, and metallurgical test work, the exploration program could cost approximately \$2,000,000.

2.0 INTRODUCTION

Blue Moon Zinc Corp. (BMZ), the successor in name to Savant Exploration Ltd. (Savant), holds the mineral rights to the Blue Moon massive sulphide occurrence in central California through its wholly owned subsidiary, Keystone Mines Inc.

Moose Mountain Technical Services (MMTS) completed a Resource estimation for the property in January 2008 (Morris and Giroux, 2008). The authors were retained by BMZ to update this report to be compliant with current regulations. No additional drilling has been completed since 2008.

BMZ has consolidated the exploration information for the property from previous owners and participants including Hecla Mining Co., Colony Pacific, Westmin, and Lac Minerals. BMZ has yet to conduct any exploration on the property.

Mr. Lawrence J. O'Connor conducted three site visits and made a detailed examination of the property on June 6th through June 8th, on July 25th and 26th, and on September 19th through 21st, 2017. During the site visits, sufficient opportunity was available to examine drill core from previous programs as well as conduct a general overview of the property including view selected drill sites and the condition of existing project infrastructure. Based on his experience, qualifications and review of the site and resulting data, the author, Mr. O'Connor, is of the opinion that the programs have been conducted in a professional manner and the quality and quantity of data and information produced from the efforts meet or exceed acceptable industry standards of that time. It is also believed that for the most part, the work has been directed or supervised by individuals who would fit the definition of Qualified Persons in their particular areas of responsibility as set out by the Instrument.

Much of the data has undergone thorough scrutiny by BMZ staff as well as certain data verification procedures by MMTS, see Data Verification, Item 12.

Sources of information are listed in the references, Item 27.

3.0 RELIANCE ON OTHER EXPERTS

Portions of the material in this report were originally reported in “Summary Report on Geological, Engineering and Economic Evaluation on Blue Moon Property, Mariposa County, California”, 2006, by Dr. Harlan D. Meade for Expatriate Resources Limited.

The quality of information, conclusions and estimates contained herein are based on industry standards for engineering and evaluation of a mineral project. The report is based on: i) information available at the time of preparation, ii) data supplied by outside sources, iii) engineering, evaluation, and costing by other technical specialists and iv) the assumptions, conditions and qualifications set forth in this report. The writers have no reason to doubt the quality or accuracy of this information.

The authors have verified the company’s legal ownership of the unpatented mineral claims through research of U.S. BLM records. All claim fees and required payments to the federal and county governments are current. The company’s legal ownership of the patented mining claims was verified through research of Mariposa County Assessor files. All required tax payments are current and the parcels are in good standing under the company’s control.

4.0 PROPERTY DESCRIPTION AND LOCATION

Adapted from Meade, 2002

The Blue Moon property is located in Township 4 South, Range 16 East, MDB&M, Mariposa County, California, U.S.A. It is located at approximately latitude 37°33'55 "N and longitude 120°15'22"W, Figures 6.1 and 6.2.

The property was owned by Westmin Mines, Inc., an Idaho corporation and subsidiary of Westmin Resources, Inc. On September 12, 2002, Westmin Resources was acquired by Expatriate Resources Ltd., now Yukon Zinc Corporation. The acquisition was subject to a purchase agreement with Boliden Westmin (Canada) Limited, whereby Expatriate acquired 100% interest in Westmin Resources, Inc. in return for the issuance of 3 million common shares and the granting of a 0.5% net smelter return royalty capped at US\$500,000 to Boliden Westmin. The subsidiary Westmin Mines, Inc. changed names to Keystone Mines, Inc, on October 25, 2002. In 2004, Expatriate transferred Keystone to Pacifica Resources Ltd., now ScoZinc Mining Ltd., through a Plan of Arrangement. Subsequently, in 2007, Pacifica through a Plan of Arrangement, transferred Keystone to Savant Explorations Ltd. Savant Explorations Ltd. changed names to Blue Moon Zinc Corp. on June 5, 2017. Currently the Blue Moon property is controlled by Blue Moon Zinc Corp. through its 100% ownership of the US subsidiary Keystone Mines, Inc., an Idaho Corporation. In 2017 Northern Empire Resources Corp. (NM) through an agreement with Imperial Metals Corporation, acquired a 10% net profits interest (NPI) in the Blue Moon project through the takeover of Imperial's Sterling Mines subsidiary. The NPI is only to be paid after deducting all operating expenses, all pre-production expenditures dating back to May 14, 1996 and all post-production expenditures. A finance charge of Prime plus one-half of one percent is also to be deducted before any NPI is paid.

The Blue Moon property is located 22 miles northeast of Merced (population ~50,000) and 120 miles east southeast of San Francisco. Access to Blue Moon is via Highway 140 from Merced to Catheys Valley, then a paved secondary highway to Hornitos, followed by 3 miles of county and private ranch gravel roads, Figure 4.1.

The Blue Moon property consists of three distinct land tenure components that cover 445 acres. These include:

1. Three patented mineral claims (American Eagle, Blue Bell, and Bonanza) owned 100% by Keystone Mines Inc.
2. Eight Federal Lode claims (Red Cloud 1-8) held 100% by Keystone Mines Inc and subject to two 1% NSR agreements with private individuals, both capped at US\$700,000.
3. 100% interest in the mineral rights from two Spanish Land Grants of the James Gann Jr. Trust of 1991, now owned by Keystone Mines Inc. in conjunction with a surface rights lease agreement, pursuant to an option purchase agreement completed in 2001 for US\$300,000.

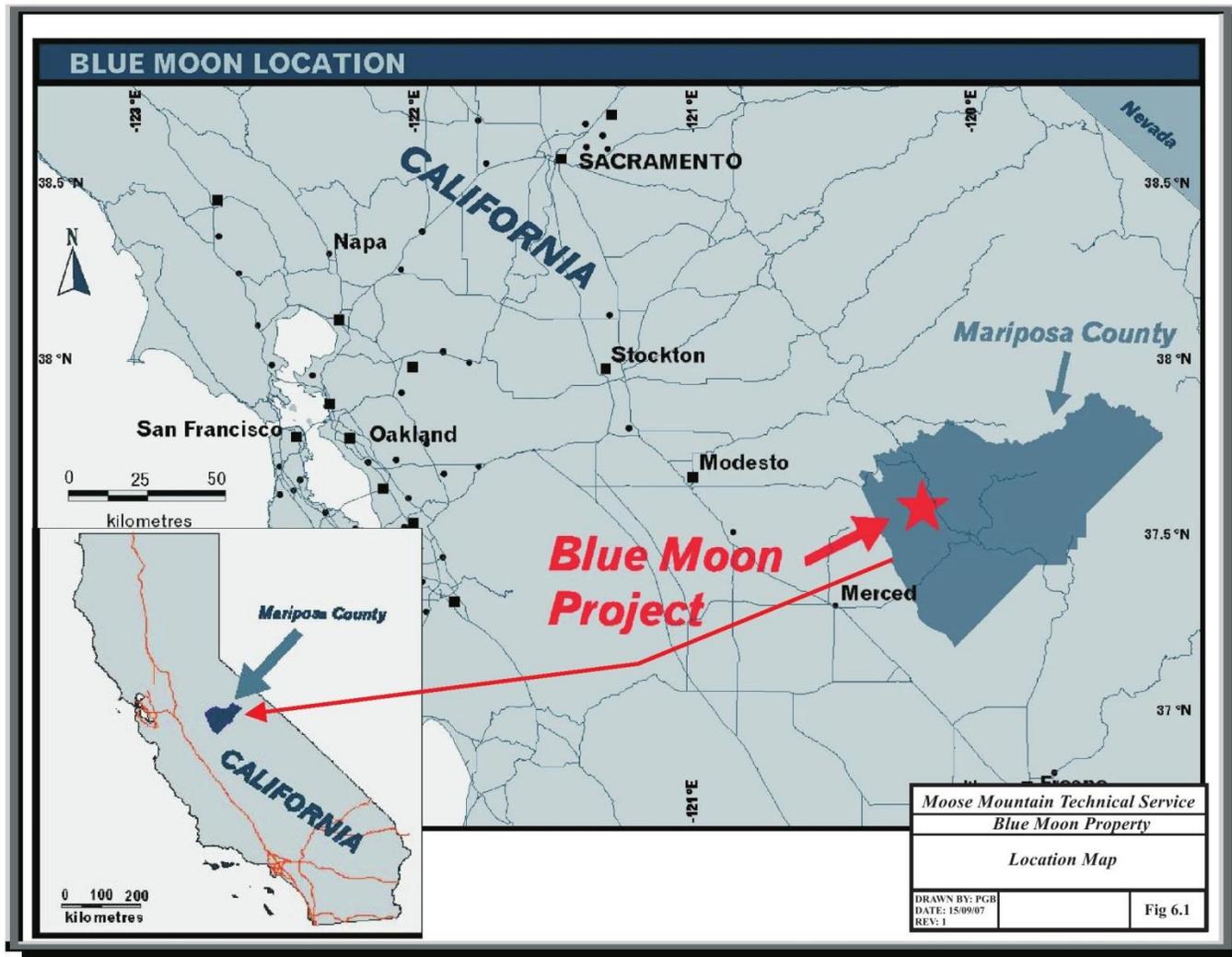


Figure 4-1 Location Map (from: Meade 2002)

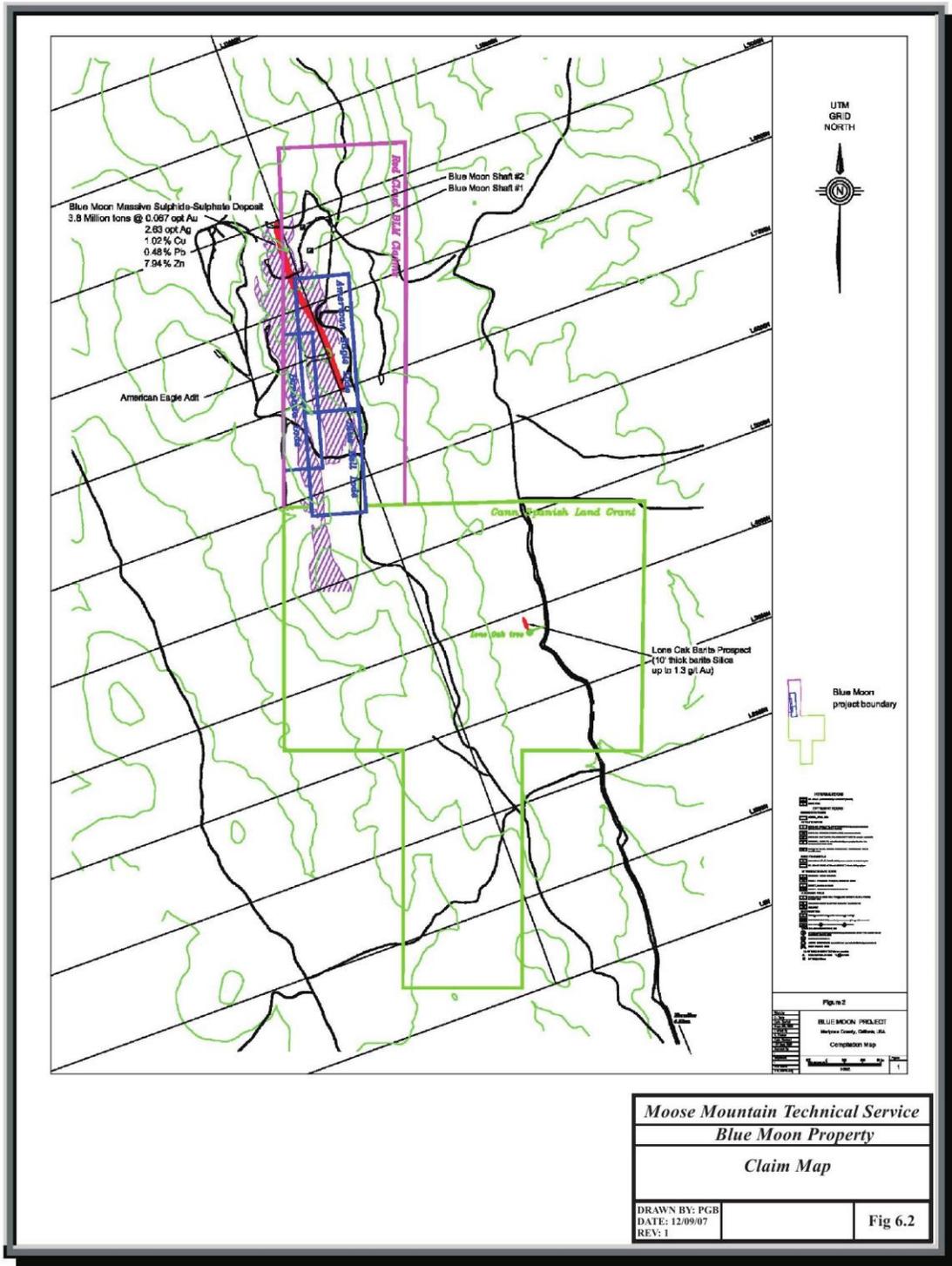


Figure 4-1 Claim Map (from: Meade 2002)

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

Adapted from Meade, 2002

“The Blue Moon property is located in T4S/16E, Mariposa County, California 22 miles northeast of Merced (population ~50,000) and 120 miles east southeast of San Francisco. Yosemite National Park is located 25 miles east northeast of Blue Moon. Access to the Blue Moon property is via Highway 140 from Merced to Catheys Valley, then a paved secondary highway to the village of Hornitos, followed by three miles of county and private ranch gravel road to the property.

Mariposa County government offices are located in the town of Mariposa 18 miles east southeast of the property. Labour and contractors are readily available from population centres in the Central Valley.

Lake McClure lies one mile north of the Blue Moon property. The lake was created by the Exchequer Dam on the Merced River and is an irrigation reservoir that also has a hydroelectric power generation facility with its main transmission line passing 0.6 miles north of the Blue Moon property.

The Blue Moon property is located in the rolling grasslands of the foothills belt of the Sierra Nevada Mountains. The hills are partly covered by oak and pine trees. Elevations on the property range from 1,000 feet to 1,600 feet above sea level. The land surface is currently used for seasonal ranching and is sparsely populated.

The area experiences hot, dry summers and cool winters. Exploration is best done in the cooler months of fall, winter and spring.”

The average yearly temperature for Hornitos, three miles south of the Blue Moon property, is 61° with a maximum temperature of 100° in July and a minimum of 34° in December and January. The average yearly precipitation for the area is approximately 19 inches with a high of 13.5 inches between December and the end of March, and a low of 0.5 inches in July and August. Precipitation is rain with the occasional trace of snow.



Photo 5-1 The east side of the property, looking to the northeast.



Photo 5-2 Looking to the southwest from the central part of the property.

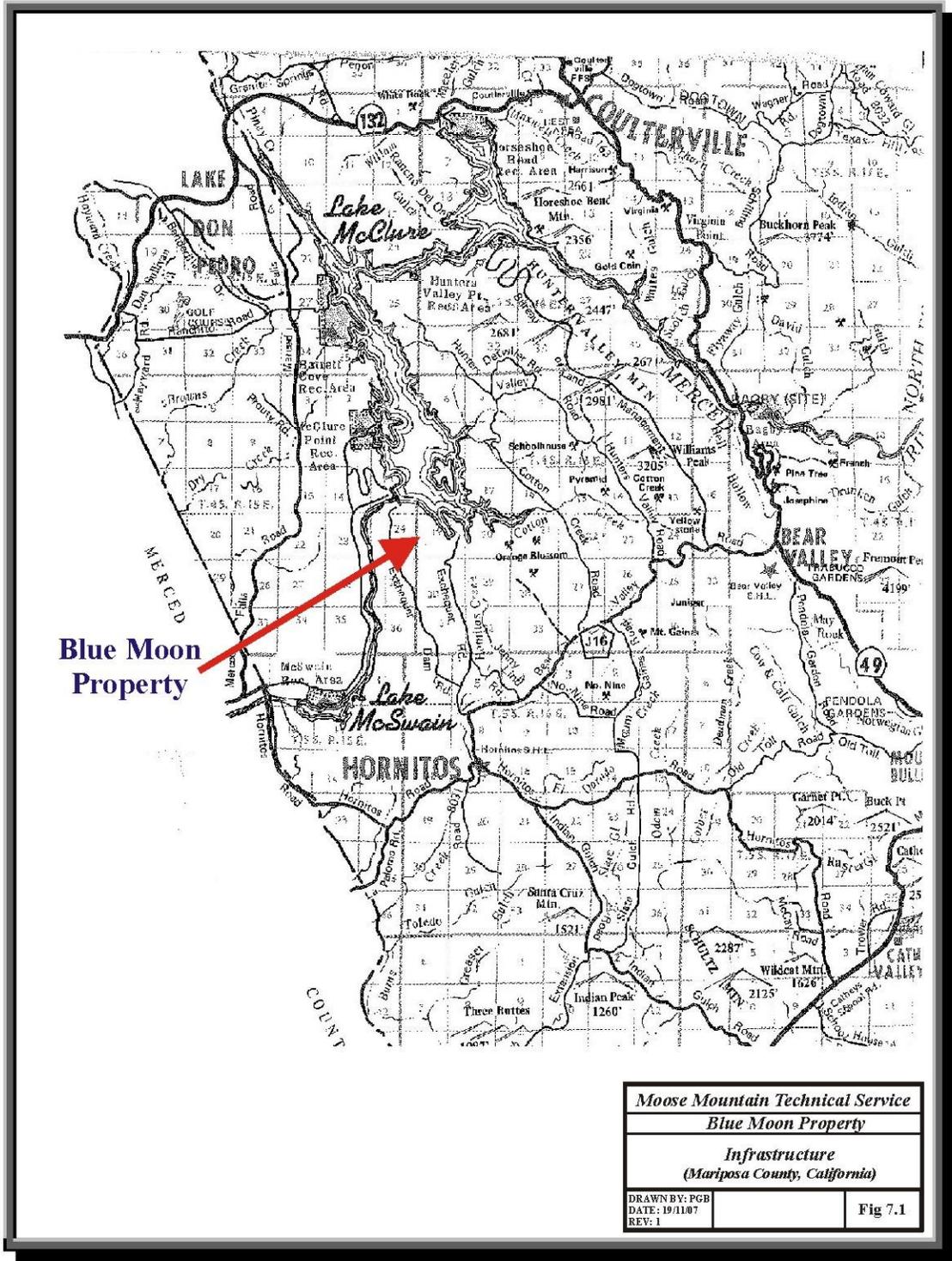


Figure 5-1 Infrastructure

6.0 HISTORY

Adapted from Meade, 2002

“The hiatus in exploration following the cessation of mining on the Blue Moon deposit in 1945 was broken when Amselco acquired the property and conducted soil geochemical and electromagnetic surveys and 4161 feet of percussion drilling between 1976 and 1979. Between 1981 and 1984 Colony Pacific Explorations Ltd. conducted geological mapping, soil geochemical sampling, induced polarization and down hole EM geophysical surveys, and 33,385 feet of diamond drilling. This drilling was focused on testing the down dip extension of the mine area. Mr. Thomas Evans supervised this work and defines the steep plunge of the lenses to the south.

American Mine Services optioned the property from Colony Pacific in 1983 and calculated a geological and mineable reserve, as well as carrying out site planning and preliminary metallurgy but defaulted on their option agreement in 1983. Westmin Resources Limited concluded an option on the property and conducted several exploration programs in the period 1984-1988 and completed 56,853 feet of diamond drilling expanding the resource base of the deposit and discovering the American Eagle lens and East lenses. The exploration work included recalculation of the mineral resource, and commencing engineering studies and conducting metallurgical, hydrological, and environmental baseline studies. In October 1987 Westmin terminated its option and converted its interest into an equity position in Colony. Colony Pacific continued with permitting of an underground exploration permit and made application for a permit for the underground development and exploration program.

More than \$5 million in exploration was completed in the period (Thompson, 1995).

In 1991 Lac Minerals optioned the property from Colony Pacific and carried out 19,654 feet of drilling in 15 holes. It also completed soil and rock geochemical surveys, and HLEM and magnetic surveys. Westmin re-acquired the property in May 1996 at a cost of \$1,450,000.

Westmin resumed evaluation of the development of the Blue Moon property following the purchase of the deposit in May 1996; however, the discovery of the Wolverine deposit by Westmin in the Yukon in 1995 focused exploration and development interest away from Blue Moon. In February 1998, Westmin granted Augusta Metals Corporation an option on the Blue Moon property. Augusta, completed 2,470 feet of drilling in five holes on the Lone Oak barite-gold showing. Augusta failed to fulfill its work commitments and the option was forfeited during 2000. The property has been dormant since that time.”

Table 6-1 Summary of Blue Moon Property Ownership

Year	Owner&/or Operator
1890-1935	Local people (American Eagle claims)
1942	Red Cloud Mines
1943-1945	Hecla Mining Company
1976	Tom Evans & Norm Stevens (staked Red Cloud Claims)
1976	Amselco
1980	Denis Baxter
1981	Quail Hill Mining Corp. (wholly owned by Colony Pacific); Quail Hill also optioned American Eagle from J. Gann
1982	Quail Hill (Colony Pacific) optioned Gann Spanish Land Grant
1983	American Mine Services
1985	Westmin Resources, Inc. acquires an option on Porath-Cox property (north of Red Crow claims)
1984-1987	Westmin
1987-1990	Westmin/Colony Pacific joint venture
1990-1991	Lac Minerals, USA option agreement with Colony Pacific
1992	Quail Hill (Colony) acquires 100% interest in Red Cloud claims
1996	Westmin acquires 100% ownership from Colony Pacific Explorations Ltd.
1998	Boliden Limited acquires Westmin
1999-2001	Augusta Metals Incorporated acquires an option to earn a 70% interest in the property
2002	Expatriate Resources Ltd. purchases 100% interest in Westmin from Boliden
2004	Expatriate Resources Ltd. transferred ownership from Keystone Mines, Inc. to Pacifica Resources Ltd.
2007	Pacifica Resources Ltd. transferred Keystone Mines, Inc. to Savant Explorations Ltd.
2017	Savant Explorations Ltd. renamed Blue Moon Zinc Corp.

Table 6-2 Summary of Previous Work, Blue Moon Property

Year	Work Completed	Claim	Operator
1890-1899	Prospecting, 950 feet of underground development and limited gold production	American Eagle	Local people
1930-1935	Prospecting, underground development, small tonnage of gold-silver-copper ore mined	Blue Moon	Local people
1942	11 surface and underground diamond drill holes (4,516.5 ft.)	Blue Moon	Red Cloud Mines
1944	7 surface diamond drill holes (2,800 ft.)	American Eagle	U.S. Bureau of Mines
1943-1945	Underground mine, production of 50,490.274 tonnes grading 2.126g/t Au, 128.588g/t Ag, 0.36% Cu, 0.48% Pb, 12.3% Zn	Blue Moon	Hecla Mining Company
1976-1979	Soil geochemical and EM surveys, 9 percussion drill holes (4,160.99 ft.)	Blue Moon, Amselco Hill	Amselco
1981-1983	Geological mapping, soil geochemistry, IP and down-hole EM geophysical surveys, 20 diamond drill holes (22,494.69 ft)	Blue Moon, American Eagle	Colony Pacific
1983	Determined geologic and mineable reserves, did site planning, and preliminary metallurgy	Blue Moon	American Mine Services
1984-1986	Geological mapping, 30 diamond drill holes (43,329.0 ft.), determined geologic and mineable reserves; did metallurgy, hydrology and base line environmental studies; initiated permitting for underground exploration	Blue Moon, American Eagle	Westmin Resources, Inc.
1987-1990	17 diamond drill holes (23,319.02 ft.), IP survey; completed permitting for underground exploration	Blue Moon	Colony Pacific
1990-1991	15 diamond drill holes (19,639.0 ft.), 2,500 ft. shaft pilot hole, soil geochemistry, rock lithochemistry	Blue Moon	Lac Minerals, USA
1999	5 diamond drill holes (2,471.0 ft.) on Lone Oak showing	Gann Spanish Land Grant	Augusta Metals Incorporated

“Numerous estimates of resources have occurred over the years of active exploration. The most recent and complete resource estimate was completed by Paul Wojdak of Westmin Resources Limited (Briggs, 1989). The ‘geological reserves’ are not based on a mine plan and hence should be categorized as resources. The aforementioned, reported ‘geological reserve’ is as follows:

Table 6-3 Historic Resource Estimate (1989), Blue Moon Property

Reserve Category	Tonnes	Au g/t	Ag g/t	Cu %	Pb %	Zn %
West Zone						
Probable*	1,453,219	1.269	61.379	1.31	0.34	9.75
Possible*	279,413	1.063	45.949	1.25	0.22	6.19
Total	1,732,632	1.200	56.921	1.29	0.31	8.75
Main Zone						
Probable	755,866	3.155	177.622	0.74	0.78	8.53
Possible	279,413	2.469	112.814	0.61	0.35	5.44
Total	1,035,279	2.983	160.134	0.70	0.66	7.70
North (Main) Zone						
Probable	55,248	2.160	82.639	1.38	0.43	12.13
Possible	37,739	2.229	83.325	1.39	0.44	12.15
Total	92,986	2.195	82.982	1.38	0.43	12.14
East Zone						
Probable	184,159	7.235	61.722	0.25	1.03	2.28
Possible	119,386	7.578	75.438	0.24	1.03	2.33
All Zones						
Probable	2,421,276	2.332	97.727	1.06	0.53	8.87
Possible	1,006,884	2.229	69.609	0.96	0.36	5.75
Total	3,455,376	2.297	89.497	1.03	0.48	7.96

***Using current acceptable resource classification; Probable reserves would likely be classified as Indicated Resources and Possible Reserves would be Inferred Resources; furthermore, Inferred Mineral Resources are not to be combined with other resource categories.**

The geologic reserves (read Mineral Resources) are estimated based on drill hole intercepts from 62 diamond drill holes. Resources were estimated for each lens of mineralization using sections spaced at 200 foot (61 metres) intervals with the outline of the mineralization and resource blocks defined on each section. In addition, level plans were also constructed at 200 foot (61 metres) intervals to confirm lateral continuity. The resource blocks occur over a range of approximately 200 metres to 700 metres below surface.

A cutoff value of US\$30/ton net smelter return was used to define mineralization to be used in the resource estimate. The Net Smelter return calculation factored in metal prices of US\$400/oz gold, US\$6.00/oz silver, US\$1.00/lb copper, and US\$0.60/lb zinc and expected metal recoveries. In some instances, mineralization

of value below the NSR cutoff value was included in ore composites and included in resources where such mineralization occurred between high value intervals. Averaging of assay intervals was length x density weighted. Where actual density information was not available, a calculated density was included in the calculations. No consideration was given to the mining of the mineralization and no mining dilution was included in ore composites used in the resource calculation. The grade for lead is a minimum value as some early drill holes did not have lead assays, however, lead is not a significant factor in economic viability of the deposit.

Probable reserves (read Indicated Resources) are interpolated 45 metres (150 feet) and locally 60 metres (200 feet) between drill intercepts, or extrapolated 30 metres (100 feet) from isolated drill intercepts. Possible reserves (read Inferred Resources) are extrapolated up to 45 metres (150 feet) from Probable reserve blocks where continuity is established, or up to 30 metres (100 feet) from isolated Probable reserve blocks.”

The historic resource estimates and classifications, as listed above, are not in accordance with NI 43-101 guidelines and should not be relied on.

The property is a former producer with some 55,655.4 tons grading 0.062 oz/ton Au, 3.75 oz/ton Ag, 0.36% Cu, 0.48% Pb, 12.3% Zn (50,490.274 tonnes grading 2.126g/t Au, 128.588g/t Ag, 0.36% Cu, 0.48% Pb, 12.3% Zn). The mine operated between 1943 and 1945.



Photo 6-1 American Eagle mine entrance.



Photo 6-2 **Blue Moon mine shaft site, caved.**

7.0 GEOLOGICAL SETTING AND MINERALIZATION

Adapted from Meade, 2002

“The Blue Moon deposit is hosted by the Upper Jurassic Gopher Ridge Formation of the Western Block of the Sierra Foothills Metamorphic Belt. This belt extends for 186 miles along the western foothills of the Sierra Nevada Mountains and is approximately 9.5 miles wide. Along the length of the belt, clusters of Zn-Cu rich, polymetallic, massive sulphide deposits occur at approximately 25 mile intervals. Many mines were developed between 1860 and the mid 1900’s along the belt. One of the largest was the Penn mine in Calaveras County north of Mariposa County, which produced 883,401.985 tonnes of Cu-Zn-Pb (Au-Ag) ore (Martin, 1988).

7.1 Property Geology

The Gopher Ridge Formation in the area of the Blue Moon deposit consists of a basal sequence of basalt and andesite overlain by a rhyolite, Figure 7.1. The rhyolite strata are up to 300m thick and host the Blue Moon deposit. The sulphide-sulphate ore lenses are hosted in the lower part of the felsic sequence. The felsic volcanic rocks are succeeded to the east by volcanoclastic rocks and ultimately by deep-water argillaceous, sedimentary rocks (Meade, 1996).

Strata at Blue Moon strike approximately 20° west of north, dip near vertically, face to the east and are tightly folded. Minor fold features suggest a steep, north plunge of the regional structure. Metamorphic grade of the host rocks is lower greenschist.

The rhyolite strata have been subdivided on the basis of phenocryst mineralogy into three distinct units: aphyric rhyolite, feldspar porphyry rhyolite and quartz-feldspar porphyry rhyolite. The distinction of these different types of rhyolite allows the modeling of the depositional environment of the volcanic rocks at the time of the sulphide mineralization and the identification of stratigraphic horizons within the felsic rocks. More massive phases of aphyric rhyolite define rhyolite dome features that are flanked by clastic, fragmental facies. The thinning of the aphyric rhyolite proximal to the domes defines favourable environments for deposition of massive sulphide mineralization. Further up the stratigraphic sequence, massive feldspar porphyry rhyolite appears to define sill or dyke features that locally truncate sulphide mineralization.

Sericite alteration and bleaching of the rhyolite strata cause wide ranges in the appearance of the various rhyolite rocks and careful distinction of alteration changes versus changes in lithology is important to defining the volcanic stratigraphy.

Lateral to the sulphide mineralization are chemical sedimentary rocks containing hematite, magnetite, barite, silica and manganese minerals, which define mineralized horizons. Sulphide-barite mineralization on the edges of massive sulphide mineralization grade laterally into hematite-jasper iron formation, which, in turn, grade into manganese-bearing siliceous tuffaceous rocks.

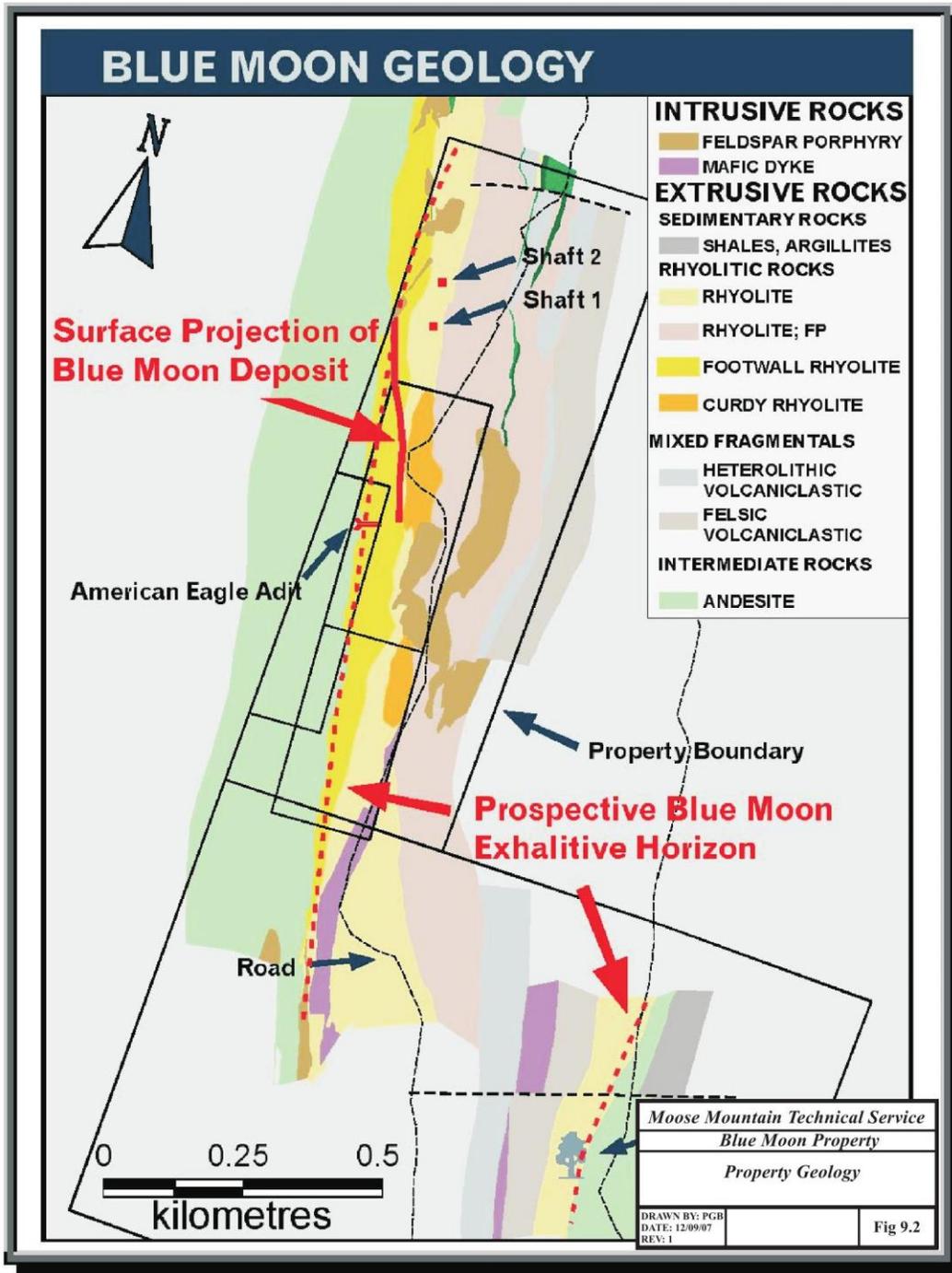


Figure 7-1 Property Geology (from: Meade, 2002)

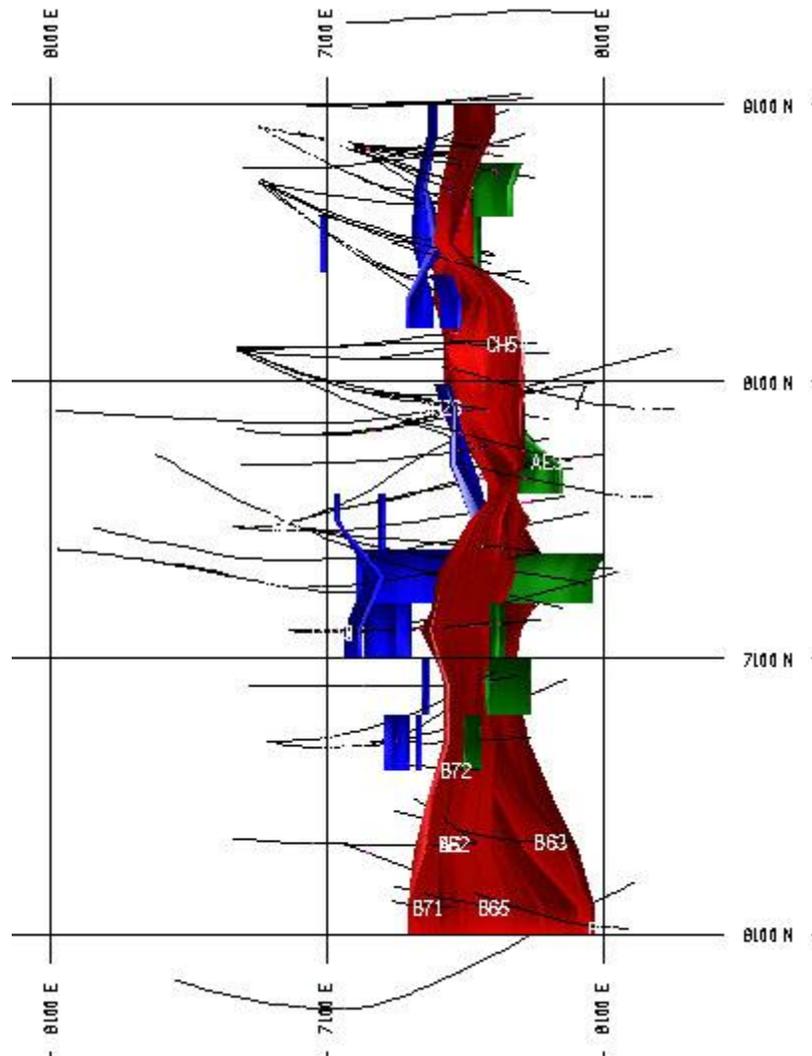


Figure 7-2 Plan view of mineralized zones (north to the top of the page, the main zone is red, east zone is green, and the west zone is blue, the grid is 1000' x 1000'. (From Morris and Giroux, 2008)

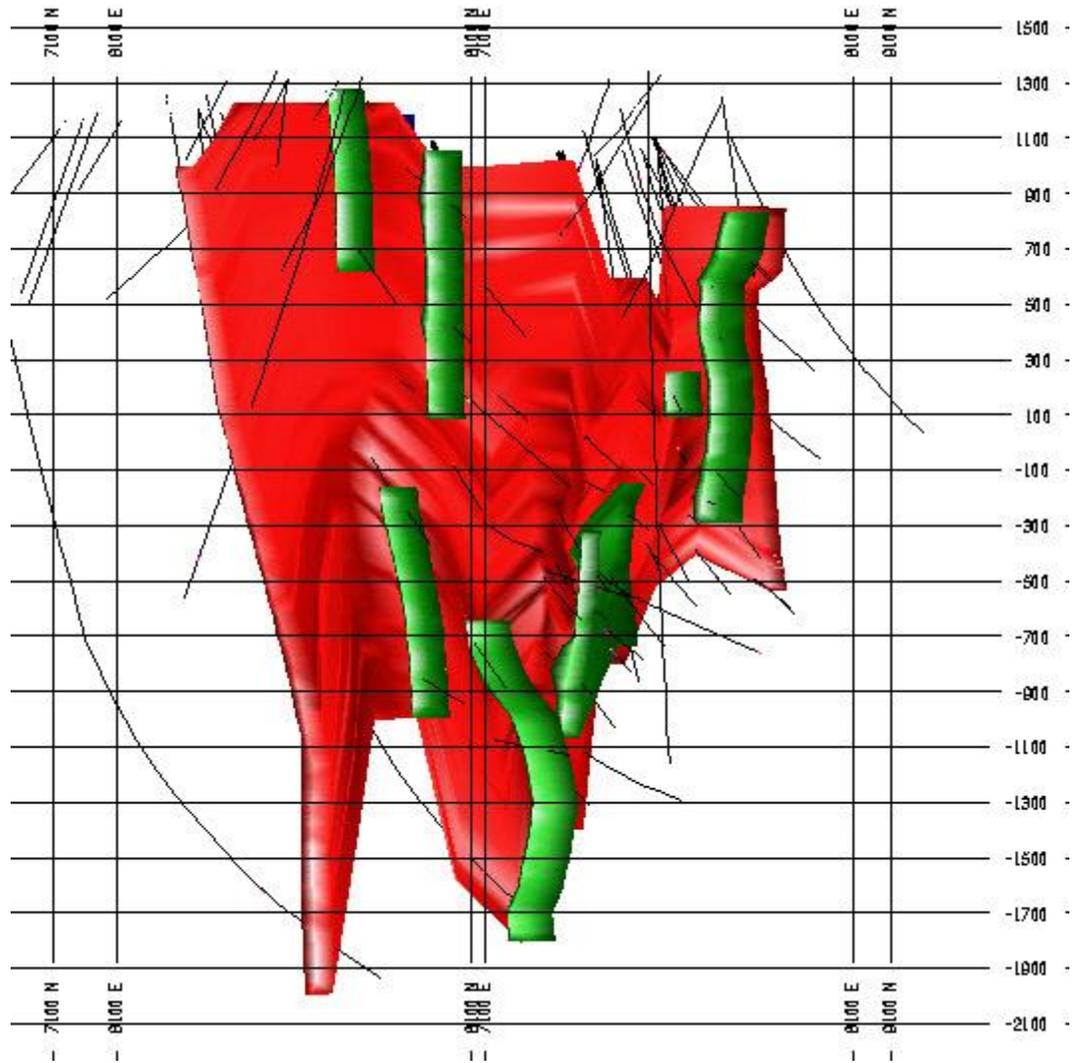


Figure 7-3 3D View of the three mineralized zones from the southeast (the main zone is red, east zone is green, and the west zone is blue, the grid is 200' vertical and 1000' east-west which is skewed because of the image rotation) (From Morris and Giroux, 2008).

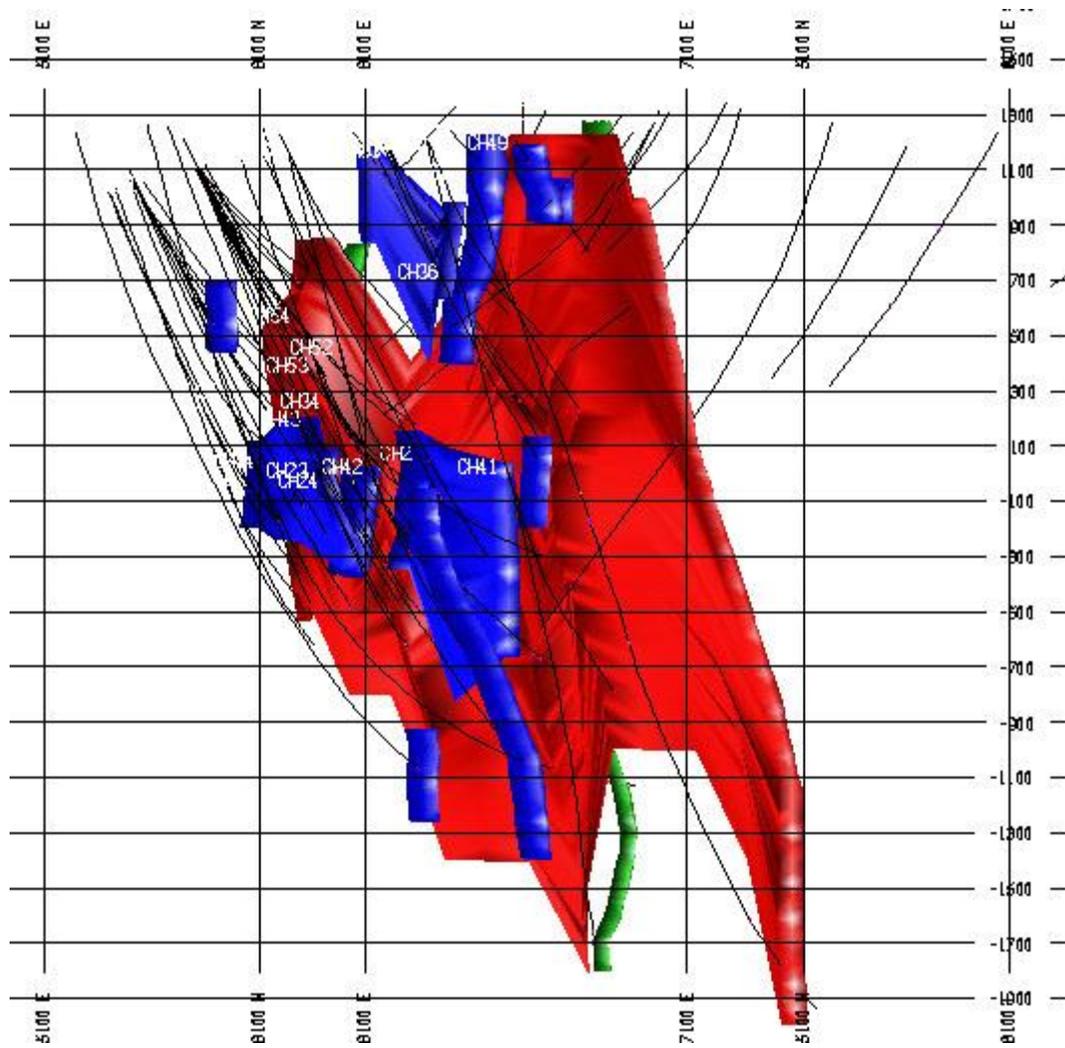


Figure 7-4 3D View of the mineralized zones from the southwest (the main zone is red, east zone is green, and the west zone is blue, the grid is 200' vertical and 1000' east-west which is skewed because of the image rotation). (From Morris and Giroux, 2008)

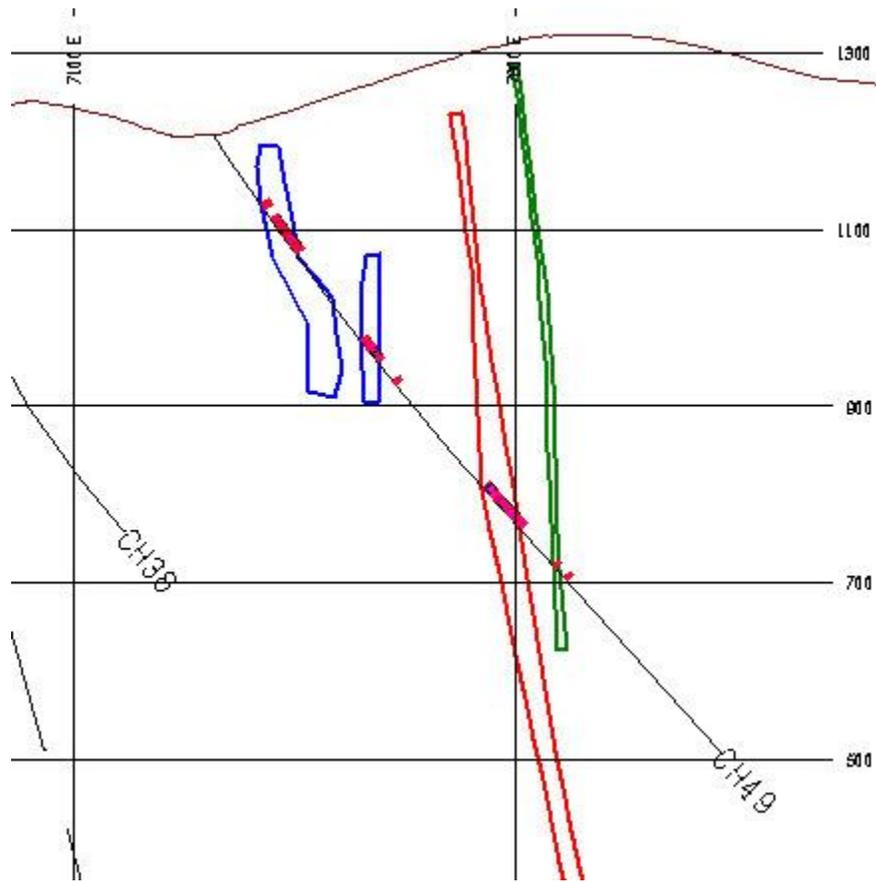


Figure 7-5 Cross-section 6800N, looking to the north (the main zone is red, east zone is green, and the west zone is blue, the grid is 200' vertical and 500' east-west). (From Morris and Giroux, 2008)

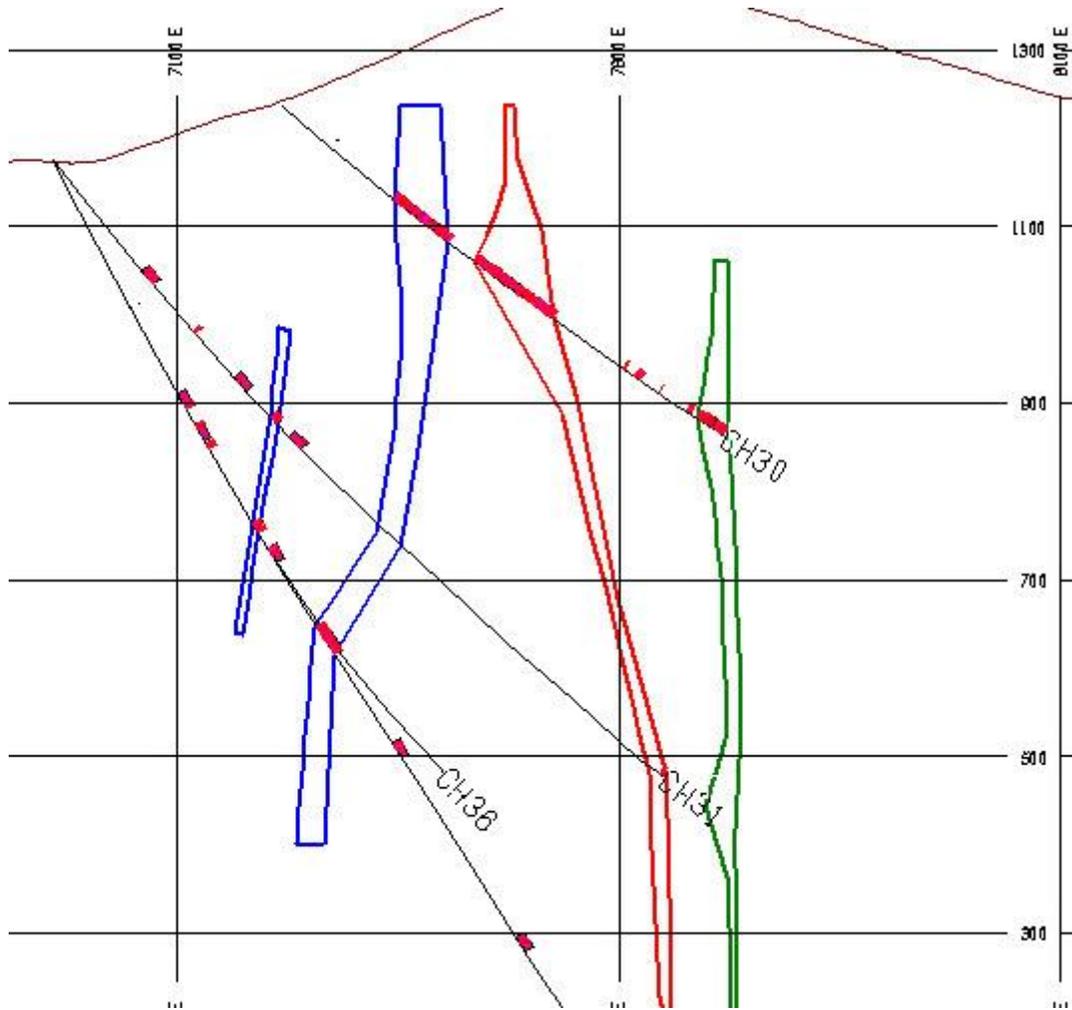


Figure 7-6 Cross-section 7200N, looking to the north (the main zone is red, east zone is green, and the west zone is blue, the grid is 200' vertical and 500' east-west (From Morris and Giroux, 2008)

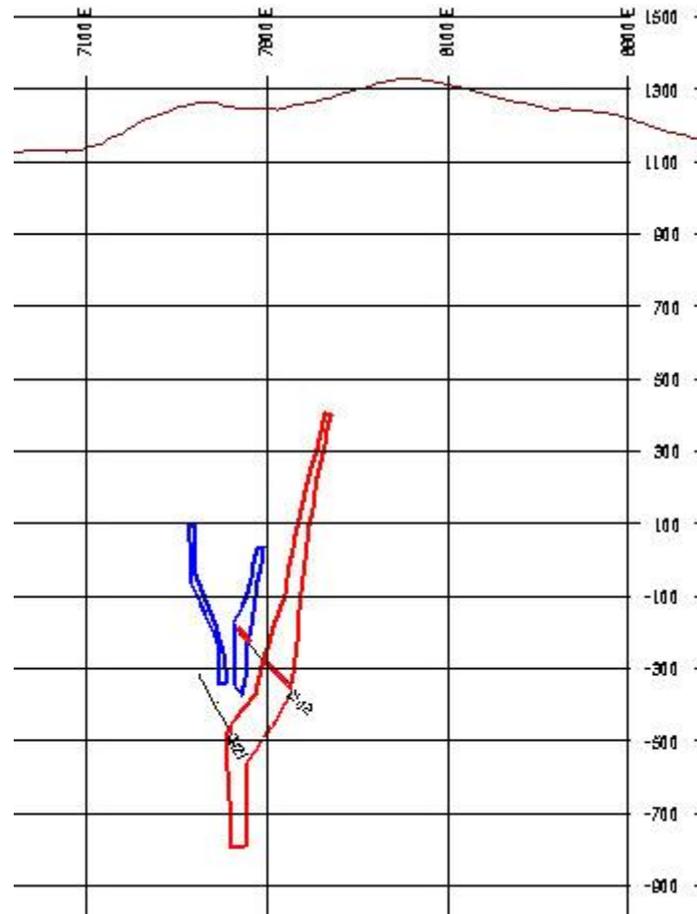


Figure 7-7 Cross-section 8400N (the main zone is red, east zone is green, and the west zone is blue, the grid is 200' vertical by 500' east-west). (From Morris and Giroux, 2008)

7.2 Mineralization

Adapted from Meade, 2002

“The Blue Moon deposit is a Kuroko-type volcanogenic massive sulphide deposit, and shows similarities to Westmin's Lynx and Myra deposits at Myra Falls, Vancouver Island. Sulphide-sulphate deposits occur in two or more stacked horizons within a 50-180 foot stratigraphic interval. Four distinct lenses of massive sulphide mineralization have been identified: the West, Main, East and American Eagle zones. The American Eagle Zone appears to occur in the same stratigraphic position as the West Zone.

The West Zone occupies the lowest stratigraphic position and occurs near the base of the aphyric rhyolite sequence. The Main Zone lies stratigraphically above the West Zone and occurs with the first appearance of quartz and feldspar porphyry rhyolite. The East Zone lies stratigraphically above the Main Zone, although

several authors have included it as part of the Main Zone. It is hosted entirely within feldspar porphyry rhyolite.

Ore zone minerals are pyrite, sphalerite, chalcopyrite, galena, and minor tetrahedrite and bornite. Massive and semi-massive sulphides may be accompanied by purple anhydrite, gypsum or barite. Textures include massive, banded and clastic ore features. Metal zoning in base or precious metal is poorly understood although there is a strong tendency for narrower mineralized zones to be relatively richer in gold and silver and to have barite gangue.

The ore horizons are enveloped by sericite-silica-pyrite alteration that extends laterally in the rhyolite stratigraphy at least as far as known mineralization and more than 490 feet into the footwall andesite. A stockwork sulphide feeder zone is not clearly identified within the footwall alteration zone. This discordant sericite altered zone is linked to a lower stratabound sericite altered zone in the footwall andesite which extends at least 0.7 miles to the south from the deposit and may be an important exploration guide to other mineralized centres.

The lower ore horizon (West and American Eagle zones) generally contains more pyrite, chalcopyrite, sphalerite, anhydrite and gypsum than the upper ore horizon (Main and East zones) which is comparatively enriched in galena, tetrahedrite and barite. Gold and silver grades can be significant in the lower horizon lenses but on average are three times greater in the upper horizon lenses.”

A database of some 1,540 samples is available for the deposit. All of the samples are from drill core. Table 7-1 lists some general statistics.

Table 7-1 Summary Statistics from Drill Core, Blue Moon

Parameter	Minimum	Maximum	Mean	Stand. Dev.	C.V.
Sample length (ft)	0.4	21.3	3.78	1.78	0.47
Copper (%)	0.0	10.7	0.35	0.85	2.44
Zinc (%)	0.0	46.0	2.37	5.09	2.15
Lead (%)	0.0	6.4	0.14	0.47	3.48
Silver (oz/ton)	0.0	40.3	0.69	2.44	3.55
Gold (oz/ton)	0.0	1.04	0.019	0.06	3.19

Mineralization lithologies were observed by Morris during the site visit in drill core. The description of the mineralization appears applicable to the Blue Moon project.

8.0 DEPOSIT TYPES

The Blue Moon deposit is classified as a Kuroko-type, polymetallic, volcanogenic, massive sulphide deposit. The sulphide-sulphate deposit is hosted in rhyolite. The ore minerals are pyrite, sphalerite, chalcopyrite, galena, and minor tetrahedrite and bornite. The associated sulphate minerals are barite, gypsum and purple anhydrite. To date, four lenses of mineralization have been identified within two, possibly three, horizons. The lenses are enveloped by sericite-silica-pyrite alteration. Gold and silver grades are significant in the lower horizon lenses but are, on average, three times greater in the upper horizon lenses.

The deposit type and model for Blue Moon is considered appropriate for a volcanogenic massive sulphide deposit.

9.0 EXPLORATION

The Blue Moon property has a long history of exploration and even saw small scale mining for a brief period during World War II. Since 1942, exploration has mainly targeted the four principal zones of mineralization on the Blue Moon property (Main Zone, East Zone, West Zone and American Eagle Zone). The primary aim of exploration has been to better define geometrically and chemically the mineralized lenses that make up these zones. The secondary aim of exploration was to understand the geology of the lenses both stratigraphically and mineralogically so that other favourable targets for exploration could be identified and explored. Favourable targets that have been identified to date are the Amselco Hill, Orca, Bathtub and Lone Oak Barite prospects.

Exploration has consisted of geological mapping, geochemical surveys, geophysical surveys and drilling. To date, there are 113 holes on the property, 104 diamond holes and 9 rotary holes, for a total of 122,730.2 feet.

9.1 Geophysical and Geochemical Exploration

Adapted from Meade, 2002

“A large number of geochemical and geophysical surveys have been completed since 1981 when modern exploration resumed (Meade and MacVeigh, 1985). Geophysical surveys have consisted of both induced polarization and electromagnetic surveys. IP surveys were completed over the Blue Moon-American Eagle areas in 1981. Colony Pacific completed down-hole electromagnetic surveys in 1983 and 1984, and Lac Minerals completed ground electromagnetic and magnetic surveys in the Amselco Hill-Lone Oak area in 1991. Areas of sericite-silica-pyrite alteration are characterized by moderate to strong chargeability anomalies. The massive sulphide mineralization is not particularly conductive due to lack of pyrrhotite in the sulphides limiting the effectiveness of electromagnetic surveys. In general, geophysics has not been a particularly useful exploration tool at Blue Moon.

Geochemical surveys consist of soil sampling in the Blue Moon-American Eagle Hill area in 1982 and in the Amselco Hill-Lone Oak-Orca-Bathtub areas by Lac Minerals in 1991. Westmin undertook considerable lithogeochemical sampling during its exploration in 1984-1988. Lac Minerals continued lithogeochemical sampling in the south part of the property in 1991 defining the Lone Oak and Amselco Hill target areas. Augusta Metals also undertook lithogeochemical sampling of the Lone Oak Barite prospect.

In general, the soil geochemical surveys have been effective in identifying areas of near surface mineralization and alteration associated with the massive sulphide deposits. These anomalies provide good targets for stratigraphic drilling along the favourable horizon.”

10.0 DRILLING

Drilling has occurred on the Blue Moon property since 1942 with a total of 122,730.2 feet of drilling in 113 drill holes. The majority of the holes were drilled in the Blue Moon deposit area. A few holes were drilled in the Amselco Hill and Lone Oak areas, targeting the favourable stratigraphic horizon. All the holes drilled on the Blue Moon property have been diamond holes, with the exception of the 9 holes drilled in 1979 by Amselco, which were percussion holes. As well, all the holes, with the exception of the Amselco holes, have had down hole surveys. Table 10.1 summarizes the history of drilling on the Blue Moon property.

Table 10-1 Summary of Drilling on Blue Moon property

Year	Operator	No. of Holes	Hole Numbers	Footage (ft)
1942	Red Cloud Mines	10	RC2 – RC8, 101-103	4,516.5
1944	US Bureau of Mines	7	1-7	2,800.0
1979	Amselco	9	79-1 – 79-9	4,161.0
1981	Colony Pacific	2	B1, B2	1,584.0
1982	Colony Pacific	12	AE1-AE3, B3-82 – B11-82	11,054.1
1983	Colony Pacific	6	B12-83 – B17-83	9,856.6
1984	Westmin	5	B18 – B22	10,891.7
1985	Westmin	10	CH13-14,17-18,23-28	10,307.5
1986	Westmin	15	AE 86 CH 1, B 86 CH 29 – B 86 CH 42	22,129.8
1987	Westmin	7	B 87 CH 43 – B 86 CH 49	6,872.0
1988	Westmin	10	B 88 CH 50 – B 88 CH 59	16,447.0
1991	Lac Minerals	15	B 91 CH 60 – B 91 CH 74	19,639.0
1999	Augusta	5	LO 99 CH 01 – LO 99 CH 05	2,471.0
	Totals	113		122,730.2

Adapted from, Meade, 2002

The drilling of the Blue Moon deposit has almost entirely been done from collaring holes in the stratigraphic footwall of the favourable rhyolite strata and drilling easterly to intersect the favourable horizons for mineralization. Some of these holes were drilled from lands immediately to the west of the Red Cloud Mines. A lease was obtained during the drilling periods to provide access for drilling of the deeper drill holes on the Blue Moon deposit. The access lease expired in the late 1980's and was not renewed.

With the exception of the Amselco drilling, all of the drilling was core drilling. All drill hole collars have been surveyed and most 1980-2000 drill holes have down hole survey information that allows the plotting of their path. The latter is particularly important given the length of many of the holes and numerous wedges in several of the longer holes. In addition, a pilot hole for the proposed shaft was drilled by Lac Minerals on Section 8000N in the hanging wall rhyolite of the Blue Moon deposit.



Photo 10-1 Core storage area on the Blue Moon Property

Relation to true thickness is discussed in Item 14.

11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

Sampling on the property includes soil and rock samples, from outcrop as well as from drill core.

Adapted from Meade, 2002

“Core recovery at Blue Moon is generally good. All core sampled was either hydraulically split or sawn into two halves. The sampled portion was bagged with assay tags and submitted for assay. The saved portion of the core is stored on the property.”

Drilling has all been done from surface into a near vertical mineralized zone. True thickness intercepts of the mineralization is nearly impossible to obtain.

During the site visit it was observed that most of the higher-grade core samples had been cut with a diamond saw, while the lower-grade materials above and below the main mineralized zones had been split hydraulically. The current authors have not been involved in any sampling work on the property.

Adapted from Meade, 2002

“All of the assay data used in the resource calculation was done by standard fire assay techniques. Some of the early drill holes were assayed in Mina, Nevada; however, the majority of assaying was done by Chemex Labs (now ALS Chemex) in Vancouver, Canada. The author is aware that considerable duplicate and check assay testing was done at the time of assaying and resource calculation; however, this data was not available to the author for review at the time of preparation of this report. The author is not aware of any problems regarding assay information and is not aware of any concern by previous reviewers of the assay data information.”

Only one set of check assays has been found which includes 55 samples that were assayed by both Chemex Labs in Vancouver (Chemex) and Mineral Assay Office Inc. in Nevada (Mineral). Table 11-1 summarizes the results of the check assays.

Table 11-1 Summary Statistics, Check Assays, Blue Moon

Parameter	Cu	Zn	Ag	Au
Mean, Chemex	0.918	5.385	2.554	0.035
Mean, Mineral	0.970	5.500	2.433	0.038
Stand. Dev, Chemex	0.997	6.622	7.037	0.082
Stand. Dev, Mineral	1.066	6.653	7.009	0.094
CV, Chemex	1.09	1.23	2.76	2.31
CV, Mineral	1.10	1.21	2.88	2.44

A paired t-test was performed on the data to check bias between the labs. In all cases the difference between the labs is considered insignificant. Table 11-2 summarizes the results.

Table 11-2 Paired t-Test, Check Assays, Blue Moon

Element	Results
Cu	Mineral reports 0.05% higher than Chemex
Zn	No bias found between labs
Ag	Chemex reports 0.12 oz/ton higher than Mineral
Au	No bias found between labs

It is the author's opinion that the sample preparation, security and analytical procedures followed during the work on the property were normal for that period of time and can be relied on as the work was done by professional geologists.

12.0 DATA VERIFICATION

Mr. Lawrence J. O'Connor has completed three site visits and made a detailed examination of the property on June 6th through June 8th, on July 25th and 26th, and on September 19th through 21st, 2017. The visits included reviewing county assessor files and BLM land files for ownership verification, pulling drill core samples for review, verifying drill logs correspond with core runs, cross checking assay certificates with core, field checking of drill site locations with collar coordinates and visiting mineralized exposures in the Blue Moon, American Eagle, and the Lone Oak areas. As well, all of the previous assessment work on the property was examined.

The database was compiled by Savant during the summer of 2007 and included 82 drillholes, of which 73 have been used in the 3D model (nine drillholes on the property are considered exploratory and are too far from the deposit to be included).

For the 2008 resource estimate MMTS completed systematic checks of 14 of the 73 drillholes, which included checking collar locations, down hole surveys, lithology logs, and assay data. Information from drill logs, where available, was considered the most reliable source. When original drill logs were not available, diamond drill data summary sheets and/or summary information from cross-sections and plans were used as source data.

The database is considered good, and the discrepancies are considered acceptable at this point. Table 12-1 summarizes the discrepancies.

Table 12-1 Summary of Discrepancies, Blue Moon

Parameter	Number of Discrepancies	Range of Error
North	0	0
East	0	0
Elevation	6	0.3' to 32.3'
From	6	0.1' to 8.6'
To	5	0.7' to 8.3'
TD	0	0
Azimuth	1	0.6°
Dip	2	0.4° to 1.0°
Survey depth	3	0.1' to 12'
Survey dip	6	0.1° to 0.55°
Survey azimuth	3	0.1 to 0.4
Lithology, to	6	0.1' to 5.5'
Lithology, from	6	0.1' to 5.5'
Au	0	0
Ag	1	3.21=3.24*
Zn	1	0.01=0.1*
Cu	4	0.08=0.15*, 0.16=0.14, 0.04=0.07, 0.24=0.47
Pb	2	0.09=0.02*, 0.02=0.01

Note: *3.21=3.24 means that 3.21 is in the database rather than 3.24.

In general the database is considered good and the errors noted are not significant.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

Adapted from Meade, 2002

“Colony Pacific Explorations Ltd. undertook preliminary metallurgical test work in 1983. More definitive test work was completed by Lakefield Research, Peterborough, Ontario in August through November 1998.

The bench-scale tests were conducted on two Blue Moon ore samples that were intended to reflect the range in sulphide contents in the ores. The samples were composited from diamond drill core rejects that had been stored in nitrogen to prevent oxidation. Sample I consisted of pyritic Cu-Zn ore with minor gold and silver. Sample II consisted of pyrite Zn-barite ore. Head grade assays are:

Table 13-1 Head Grade Assay Values

	High Sulphide – Sample 1	Low Sulphide – Sample 2
Copper %	1.71	0.34
Lead %	0.15	1.03
Zinc %	15.1	6.54
Gold g/t	0.960	7.715
Silver g/t	41.491	77.838

Test work methodology consisted of separating the copper-lead minerals followed by the making of a zinc concentrate. The results of a cycle test on Sample 1 indicated 93% Cu recovery in a concentrate analyzing 26.5% Cu, 2.35% Pb and 7.0% Zn. A high-grade zinc concentrate was produced in all tests. The cycle test results projected a 62% Zn concentrate representing 95% Zn recovery. The zinc concentrate is of excellent quality with no deleterious elements at penalty levels. Gold and silver recoveries in the copper concentrates were approximately 70% and 65% respectively.

The mineralogy of Sample 2 was more complex and fine-grained. The copper and lead floated slowly reducing selectivity in the copper-lead circuit. Secondary copper minerals were observed. Satisfactory Cu-Pb concentrates were produced with recoveries up to 93% of the copper and 95% of the lead in a cleaner concentrate; however, separation of the copper and lead from such products was difficult and insufficient sample was available to continue test work. As with Sample 1, a high quality zinc concentrate was produced following a conventional flow sheet. The zinc concentrate grade was also greater than 60%. The very high zinc grade in zinc concentrates in part reflects the relatively low iron content of sphalerite in the ores.

Additional test work is warranted to determine a better means of achieving separation of the copper and lead in the bulk copper-lead concentrates. Alternatively, early separation of the lead may improve separation from copper.”

14.0 MINERAL RESOURCE ESTIMATES

Introduction

At the request of Patrick McGrath CEO of Blue Moon Zinc Corp., the 2008 resource estimate completed for the company has been adjusted to comply with changes in the CIM Definition Standards on Mineral Resources and Mineral Reserves adopted in 2014 and changes in National Instrument 43-101. There has been no additional drilling completed on the property since the 2008 Report (Morris and Giroux, Feb. 2008) so this resource estimate is still current. The Resource Tables have been adjusted to reflect long term metal prices. The effective date of this resource is August 24, 2017.

Gary Giroux is the qualified person responsible for the Resource Estimate. Mr. Giroux is a qualified person by virtue of education, experience and membership in a professional association. He is independent of the company applying all of the tests in Section 1.5 of National Instrument 43-101. Mr. Giroux has not visited the Property.

The authors are not aware of any legal, political, environmental, or other risks that could materially affect the potential development of the mineral resource.

Data Analysis

A total of 82 drill holes were supplied totaling a combined 111,250 ft. with 1,540 assays. All supplied units were Imperial and these units were used in this resource. Samples were assayed for Cu and Zn in percent and Au and Ag in ounces per ton. Data reported as -0.01 were considered below detection limit and set to one half the detection limit while those assays reported as 0.000 were considered missing data and set to blank.

The mineralization at Blue Moon is considered to be Kuroko-type volcanogenic massive sulphide mineralization present in three distinct lenses. These lenses have been modeled and coded Lens 1 to 3 with Lens 1 corresponding to the Main lens, Lens 2 corresponding to the West Lens and Lens 3 corresponding to the East Lens. From drill logs these three lenses were interpreted on cross sections based on Zn grades and then joined into a 3D geologic model. Assays were then back coded within each lens. The statistics for the combined mineralized zones and each individual zone is presented below along with the statistics of all material outside the mineralized zones considered waste.



Figure 14-1 Cross section North 7200 showing drill hole traces with zinc assays and the three interpreted mineralized lenses (looking to the north, vertical scale shows a 200' grid while the horizontal scale is 1000').

Table 14-1 Summary of assay statistics for all zones

Zone	Variable	Number	Mean	S.D.	Minimum	Maximum	C.V.
All Mineralized Zones	Au (oz/t)	1,026	0.024	0.071	0.001	1.039	2.94
	Ag (oz/t)	1,015	0.852	2.775	0.001	40.30	3.26
	Cu (%)	1,009	0.417	0.924	0.001	10.70	2.22
	Zn (%)	1,026	3.112	5.726	0.001	46.00	1.84
	Pb (%)	1,032	0.152	0.510	0.001	6.40	3.34
Main Lens (1)	Au (oz/t)	674	0.024	0.058	0.001	0.58	2.45
	Ag (oz/t)	665	0.935	2.871	0.001	40.30	3.07
	Cu (%)	660	0.480	1.001	0.001	10.70	2.09
	Zn (%)	674	3.698	6.287	0.001	46.00	1.70
	Pb (%)	679	0.150	0.475	0.001	4.79	3.18
West Lens (2)	Au (oz/t)	207	0.008	0.128	0.001	0.10	1.65
	Ag (oz/t)	205	0.320	1.768	0.001	25.00	5.53
	Cu (%)	206	0.261	0.521	0.001	3.28	2.00
	Zn (%)	207	1.665	3.729	0.001	26.75	2.24
	Pb (%)	207	0.055	0.128	0.001	1.00	2.34
East Lens (3)	Au (oz/t)	145	0.049	0.136	0.001	1.04	2.76
	Ag (oz/t)	145	1.225	3.347	0.001	33.25	2.73
	Cu (%)	143	0.350	0.979	0.001	7.20	2.80
	Zn (%)	145	2.454	4.871	0.001	30.00	1.99
	Pb (%)	146	0.303	0.854	0.001	6.40	2.82
Waste	Au (oz/t)	801	0.005	0.016	0.001	0.302	3.45
	Ag (oz/t)	782	0.178	1.068	0.001	25.86	6.00
	Cu (%)	781	0.138	0.550	0.001	6.92	3.99
	Zn (%)	801	0.431	2.064	0.001	33.10	4.79
	Pb (%)	803	0.046	0.261	0.001	4.00	5.66

A correlation coefficient matrix was developed for each mineralized lens. Each variable within each lens was strongly skewed and as a result each was converted to a log value before the correlation matrix was developed.

Table 14-2 Summary of Correlation Coefficients for all Lenses.

Lens	Zn:Cu	Zn:Ag	Zn:Au	Cu:Ag	Cu:Au	Ag:Au	Ag:Pb
Main	0.7799	0.6205	0.5614	0.5115	0.5443	0.7149	0.6352
West	0.7606	0.6706	0.4609	0.7069	0.5172	0.5591	0.4075
East	0.7965	0.7719	0.6042	0.7231	0.5660	0.7455	0.7094

Each mineralized zone was evaluated independently using lognormal cumulative frequency plots to determine if capping was necessary and if so at what level. In all cases the grade distributions were positively skewed and a lognormal transform showed multiple overlapping populations. For each variable in each zone lognormal cumulative frequency plots were produced and partitioned. In each case multiple overlapping lognormal population were identified. Thresholds were chosen in each case to minimize high grade erratic assays. Table 14-3 shows the cap level for each variable in the three mineralized lenses and waste.

Table 14-3 Summary of capping levels for all zones.

Zone	Variable	Cap Threshold	Cap Value	Number Capped
Main	Au (oz/t)	2 S.D. A.M. P2	0.329 oz/t	5
	Ag (oz/t)	2 S.D. A.M. P2	17.70 oz/t	4
	Cu (%)	2 S.D. A.M. P3	4.4 %	9
	Zn (%)	2 S.D. A.M. P2	37.5 %	2
West	Au (oz/t)	2 S.D. A.M. P2	0.076 oz/t	1
	Ag (oz/t)	2 S.D. A.M. P2	1.97 oz/t	3
	Cu (%)	2 S.D. A.M. P2	2.41 %	3
	Zn (%)	2 S.D. A.M. P2	19.22 %	3
East	Au (oz/t)	2 S.D. A.M. P2	0.51 oz/t	2
	Ag (oz/t)	2 S.D. A.M. P2	10.30 oz/t	2
	Cu (%)	2 S.D. A.M. P2	2.81 %	4
	Zn (%)	2 S.D. A.M. P2	22.7 %	2
Waste	Au (oz/t)	2 S.D. A.M. P4	0.055 oz/t	9
	Ag (oz/t)	2 S.D. A.M. P3	4.3 oz/t	5
	Cu (%)	2 S.D. A.M. P3	2.40 %	10
	Zn (%)	2 S.D. A.M. P3	11.2 %	5

Note: 2 S.D.A.M.P2 refers to 2 standard deviations above mean of population 2

Lead values did not require capping. The effects of capping are shown in Table 14-4.

Table 14-4 Summary of capped assay statistics for all zones.

Zone	Variable	Number	Mean	S.D.	Minimum	Maximum	C.V.
All Mineralized Zones	Au (oz/t)	1,026	0.022	0.054	0.001	0.510	2.42
	Ag (oz/t)	1,015	0.761	1.995	0.001	17.70	2.62
	Cu (%)	1,009	0.386	0.739	0.001	4.40	1.92
	Zn (%)	1,026	3.073	5.552	0.001	37.50	1.81
Main Lens (1)	Au (oz/t)	674	0.023	0.051	0.001	0.329	2.25
	Ag (oz/t)	665	0.872	2.240	0.001	17.70	2.57
	Cu (%)	660	0.452	0.828	0.001	4.40	1.83
	Zn (%)	674	3.684	6.203	0.001	37.50	1.68
West Lens (2)	Au (oz/t)	207	0.008	0.012	0.001	0.076	1.59
	Ag (oz/t)	205	0.200	0.327	0.001	1.97	1.64
	Cu (%)	206	0.254	0.484	0.001	2.41	1.91
	Zn (%)	207	1.585	3.253	0.001	19.22	1.05
East Lens (3)	Au (oz/t)	145	0.042	0.089	0.001	0.51	2.11
	Ag (oz/t)	145	1.044	2.035	0.001	10.30	1.95
	Cu (%)	143	0.271	0.548	0.001	2.81	2.02
	Zn (%)	145	2.356	4.361	0.001	22.70	1.85
Waste	Au (oz/t)	801	0.004	0.008	0.001	0.055	2.07
	Ag (oz/t)	782	0.145	0.518	0.001	4.30	3.56
	Cu (%)	781	0.115	0.369	0.001	2.40	3.20
	Zn (%)	801	0.364	1.289	0.001	11.20	3.54

Composites

Uniform down hole composites 10 ft. in length were produced that honoured the boundaries of the three mineralized solids and waste. Small intervals at the solid boundaries were combined with the adjoining sample if less than 5 ft. to produce a uniform support of 10 ± 5 ft. The statistics for composites are shown below.

Table 14-5 Summary of 10 ft composite statistics for all zones.

Zone	Variable	Number	Mean	S.D.	Minimum	Maximum	C.V.
Main Lens	Au (oz/t)	296	0.024	0.045	0.001	0.269	1.88
	Ag (oz/t)	295	0.749	1.611	0.001	13.41	2.15
	Cu (%)	293	0.415	0.694	0.001	4.40	1.67
	Zn (%)	296	3.313	5.012	0.001	30.40	1.51
	Pb (%)	296	0.131	0.305	0.001	2.52	2.34
West Lens	Au (oz/t)	86	0.008	0.010	0.001	0.060	1.31
	Ag (oz/t)	86	0.189	0.231	0.001	1.12	1.22
	Cu (%)	86	0.221	0.335	0.001	1.65	1.52
	Zn (%)	86	1.467	2.140	0.001	12.09	1.46
	Pb (%)	86	0.053	0.095	0.001	0.54	1.77
East Lens	Au (oz/t)	56	0.041	0.065	0.001	0.266	1.57
	Ag (oz/t)	56	1.181	2.047	0.001	10.30	1.73
	Cu (%)	56	0.229	0.340	0.001	1.84	1.48
	Zn (%)	56	2.504	3.661	0.001	13.97	1.46
	Pb (%)	56	0.323	0.707	0.001	3.31	2.19
Waste	Au (oz/t)	8,565	0.001	0.001	0.001	0.048	1.02
	Ag (oz/t)	8,562	0.005	0.068	0.001	3.64	13.37
	Cu (%)	8,563	0.004	0.045	0.001	2.13	11.97
	Zn (%)	8,565	0.008	0.086	0.001	2.58	9.53
	Pb (%)	8,565	0.002	0.014	0.001	0.54	7.23

Note: Long intervals of un-assayed core were added to waste and assigned 0.001 in the Composite process. This accounts for the increased numbers of composites and the reduced grades. The fact some higher grades occur outside the mineralized zones accounts for the very high coefficients of variation in Ag, Cu, Zn and Pb within waste.

Variography

Pairwise relative semivariograms were produced for each variable within the Main Lens in three principal directions: along strike Grid N-S, down dip Grid 0 Dip -90 and across Dip Grid E-W. There were insufficient pairs in the across dip direction to model more than the first part of the semivariogram. Nested spherical models were fit to all structures and geometric anisotropy was demonstrated for each variable. Ranges along strike varied from 180 ft. for Cu to 600 ft. for Au while along the down dip direction ranges varied from a minimum 400 ft. for Ag to 600 ft. for Zn.

There were insufficient pairs to generate models for the other two zones (West and East Lenses). Since the sample statistics, strike, dip and correlation coefficients were similar in each zone to the Main zone the models for Main zone were applied to both other zones.

Table 14-6 Summary of Semivariogram Parameters for Main Lens

Zone	Variable	Azimuth	Dip	C ₀	C ₁	C ₂	Short Range (ft.)	Long Range (ft.)
Main	Zn	0	0	0.40	0.40	0.25	60	300
		90	0	0.40	0.40	0.25	40	60
		0	-90	0.40	0.40	0.25	200	600
	Cu	0	0	0.20	0.60	0.20	100	180
		90	0	0.20	0.60	0.20	40	80
		0	-90	0.20	0.60	0.20	300	500
	Ag	0	0	0.40	0.40	0.30	100	500
		90	0	0.40	0.40	0.30	80	100
		0	-90	0.40	0.40	0.30	300	400
	Au	0	0	0.10	0.50	0.40	180	600
		90	0	0.10	0.50	0.40	100	200
		0	-90	0.10	0.50	0.40	300	500
Pb	0	0	0.50	0.25	0.30	120	400	
	90	0	0.50	0.25	0.30	20	50	
	0	-90	0.50	0.25	0.30	150	300	
Waste	Zn	Omni Directional		0.055	0.020	0.045	50	400
	Cu	Omni Directional		0.035	0.020	0.035	50	500
	Ag	Omni Directional		0.010	0.004	0.012	50	400
	Au	Omni Directional		0.050	0.010	0.055	50	400
	Pb	Omni Directional		0.025	0.018	0,027	60	300

Bulk Density

A total of 297 specific gravity determinations were available for the Blue Moon Project. These measurements can be subdivided by mineralized lens and by assay grades.

Table 14-7 Specific gravity determinations sorted by Mineralized Zone

Zone	Number	Low	High	Average
Main	210	2.53	4.32	3.24
West	7	2.86	3.52	3.00
East	38	2.77	4.55	3.42
Waste	42	2.65	4.69	3.36

Ideally one could interpolate a SG into all blocks for each mineralized lens and a weighted average could be calculated based on the proportion of each zone within a block. Unfortunately the mineralized lenses are not sampled evenly and some contain insufficient data to allow for an estimate. Another approach is to assume the SG is proportional to the amount of massive sulphides present in the block. Since iron was not estimated the amount of pyrite cannot be used in this determination but the combined sum of zinc and copper

could be used to estimate the amount of sulphides present. The table below breaks up the specific gravity measurements into a series of Zn + Cu grade ranges and shows a progressive increase in SG with increased sulphides. The SG for any given block could then be assigned based on the combined Zn + Cu estimated grade for the block.

Specific gravities were converted to the Imperial tonnage conversion factor by the following equation.

$$\text{Tonnage Factor (cu. ft. / ton)} = 2000 \text{ lbs/ton} / (62.4 \text{ lbs/cu.ft.} * \text{SG})$$

Table 14-8 Specific gravity determinations sorted by Combined Zn + Cu Grade

ZN + CU RANGE	Number	Low	High	Average	Tonnage Conversion Factor (TF) (cu. ft. / ton)
0 – 1.0 %	65	2.53	4.48	3.07	10.44
1.0 – 2.0 %	46	2.67	4.37	3.11	10.31
2.0 – 10.0 %	100	2.59	4.69	3.26	9.83
10.0 – 20.0 %	50	2.86	4.25	3.41	9.40
> 20 %	33	3.32	4.55	3.75	8.55

The average specific gravity for 32 samples in waste was 3.16 giving a TF of 10.14 cu. ft/ton. This value was applied to the waste portions of blocks.

Block Model

A three dimensional block model with blocks 20 x 20 x 20 ft. in dimension was created to encompass the geologic solids. Each block was coded with the percentage of the block below topography. Each block was also coded with the mineralized zone code and the percentage of the block within that mineralized solid.

The block model origin was as follows:

Lower Left Corner of Model	5000 E	Column Size 20 ft.	275 cols.
	4800 N	Row Size 20 ft.	285 rows
Top of Model	1480	Level Size 20 ft.	174 levels
No Rotation			

Grade Interpolation

Grades for Zn, Cu, Pb, Ag and Au were interpolated into blocks by Ordinary Kriging. Within each mineralized zone, only composites from that zone were used in the kriging process.

Kriging was completed in a series of passes for each variable within each of the three mineralized zones and finally for the waste. A first pass was made using a search ellipse with dimensions equal to ¼ the semivariogram range in each of the three principal directions. The ellipse was aligned parallel to the three principal directions. If a minimum of 4 composites was found in the search the block was estimated. For blocks not estimated in pass 1 a second pass using dimensions for the search ellipse equal to ½ the semivariogram ranges. For blocks not estimated in Pass 2 a third pass using the full range

was completed. Finally for blocks still not estimated a fourth pass using twice the range was run. In all passes if more than 12 composites were found the closest 12 were used. This process estimated grades for the part of each block within the mineralized solids.

For blocks with less than 100% of their volume contained within the mineralized solids, the waste portion of the block was estimated using only composites outside the mineralized solids. A weighted average grade for the total block was then estimated.

The search directions and distances for the West and East mineralized zones were taken from the variogram produced for the Main Zone. These search parameters and those for waste are shown below.

Table 14-9 Summary of Kriging Parameters

Zone	Variable	Pass	Az/Dip	Dist. (ft.)	Az/Dip	Dist. (ft.)	Az/Dip	Dist. (ft.)
Main, West and East	Zn	1	90/0	15	0/0	75	0/-90	150
		2	90/0	30	0/0	150	0/-90	300
		3	90/0	60	0/0	300	0/-90	600
		4	90/0	120	0/0	600	0/-90	1200
	Cu	1	90/0	20	0/0	45	0/-90	125
		2	90/0	40	0/0	90	0/-90	250
		3	90/0	80	0/0	180	0/-90	500
		4	90/0	160	0/0	600	0/-90	1200
	Ag	1	90/0	25	0/0	125	0/-90	100
		2	90/0	50	0/0	250	0/-90	200
		3	90/0	100	0/0	500	0/-90	400
		4	90/0	200	0/0	600	0/-90	1200
	Au	1	90/0	50	0/0	150	0/-90	125
		2	90/0	100	0/0	300	0/-90	250
		3	90/0	200	0/0	600	0/-90	500
		4	90/0	200	0/0	600	0/-90	1200
	Pb	1	90/0	12.5	0/0	100	0/-90	75
		2	90/0	25	0/0	200	0/-90	150
		3	90/0	50	0/0	400	0/-90	300
		4	90/0	200	0/0	600	0/-90	1200
Waste	Zn, Cu, Ag, Au,	1	Omni Directional			100		
		2	Omni Directional			200		
		3	Omni Directional			400		
		4	Omni Directional			800		
	Pb	1	Omni Directional			75		
		2	Omni Directional			150		
		3	Omni Directional			300		
		4	Omni Directional			800		

Classification

Introduction

Based on the study herein reported, delineated mineralization of the Blue Moon Project is classified as a resource according to the following definition from National Instrument 43-101 and CIM (2014):

“In this Instrument, the terms “Mineral Resource”, “Inferred Mineral Resource”, “Indicated Mineral Resource” and “Measured Mineral Resource” have the meanings ascribed to those terms by the Canadian Institute of Mining, Metallurgy and Petroleum, as the CIM Definition Standards (May 2014) on Mineral Resources and Mineral Reserves adopted by CIM Council, as those definitions may be amended.”

The terms Measured, Indicated and Inferred are defined by CIM (2014) as follows:

“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.”

“The term Mineral Resource covers mineralisation 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 economic extraction’ implies a judgement 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 cut-off 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.”

“Mineralisation 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 mineralisation. The Qualified Person must recognise 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 Preliminary 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. Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation. 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.”

“Mineralisation 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 mineralisation 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.”

Modifying Factors

“Modifying Factors are considerations used to convert Mineral Resources to Mineral Reserves. These include, but are not restricted to, mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors.”

Results

The geologic continuity of the Blue Moon deposit has been established through diamond drilling. Grade continuity can be quantified by semivariogram analysis. Within the Main and West Zone blocks estimated in Pass 1 or Pass 2 for zinc, using search ellipses of up to ½ the semivariogram ranges for each variable were classed as Indicated. The remaining blocks were classified as Inferred. All blocks within the East zone were classed as inferred at present due to the lower amounts of data delineating this zone. The results are summarized in a series of grade-tonnage tables. As the Blue Moon is a multi-variable deposit, with all variables contributing to the economic value, a method of combining the grades into one variable was required. A zinc equivalent value “ZnEq” was chosen making use of reasonable metal prices and estimated recoveries (the recoveries are discussed in Item 13). The parameters used were as follows:

Variable	Metal Price	Recovery	Factor
Zinc	\$US1.30/pound	95% Recovery	24.70
Copper	\$US 3.00/pound	93% Recovery	55.80
Lead	\$US 1.00/pound	95% Recovery	19.00
Silver	\$US 17.00/oz	65% Recovery	11.05
Gold	\$US 1250.00/oz	70% Recovery	875.00

The metal prices and the recoveries selected represent reasonable estimates of long term metal prices and potential recoveries of metal in concentrate. Further study of both parameters is required to advance the project to the next phase.

The equation to calculate ZnEq was as follows:

$$\text{ZnEq} = (\text{Zn}\% * 24.70 + \text{Cu}\% * 55.80 + \text{Pb}\% * 19.00 + \text{Ag}(\text{oz/t}) * 11.05 + \text{Au}(\text{oz/t}) * 875.00) / 24.70$$

Reasonable expectations of economic extraction can be determined by comparing the Blue Moon Deposit to a couple of producing mines. The first is the Bolanitos Mine located in central Mexico. At Bolanitos there are three epithermal vein deposits steeply dipping. The three mines are all ramp accessed with the ore being within approximately 200 metres from surface. This is thought to be analogous to Blue Moon in that the production rate is 1,600 tpd using flotation technology and similar mining methods. Blue Moon will use longhole mining methods while Bolanitos uses longhole stopping but also the more expensive cut and fill method. Blue Moon will produce two concentrates whilst Bolanitos has a floatation plant which produces a bulk concentrate. Bolanitos operates three mines and transports ore an average distance of approximately 12 km to its plant whereas Blue Moon will operate a single mine with a plant located next to it. Bolanitos is mining veins from 1–12 metres thick whereas Blue Moon will mine an average deposit width of approximately 5 metres.

Bolanitos is currently using an \$US85 per tonne cut-off grade which is higher than what is expected at Blue Moon due to the three smaller deposits they are mining, the cut and fill component of the mining operation and the 12 km haul to the processing plant.

A second analogous deposit might be Trevali Mining's Santander Mine in central Peru. The deposits are carbonate replacement zones and are steeply dipping. Measured and Indicated resources are about 3.8 Mt grading 4.85% Zn, 0.83% Pb and 1.23 oz/t Ag. It is thought this is a reasonable comparison because it is a base metal mine using similar mining methods with ramp access, as proposed at Blue Moon. The plant produces two concentrates, zinc and lead/silver with a slightly higher production rate of 2,000 tpd compared to the anticipated 1,600 tpd at Blue Moon. Operating costs are \$US35 to \$US40/tonne of mill feed whereas at Blue Moon the anticipated costs are in the \$US70/ton range. The differences are mostly attributable to higher labour rates in California. The Santander Mine operates on grid power as will the Blue Moon.

As a result, an economic cut-off of \$US75 would seem reasonable for the Blue Moon Deposit. The ZnEq cut-off value of 4 % has been highlighted to reflect a reasonable estimate of costs for an underground mining and milling operation. Further study is required to advance the project to the next phase.

The first two tables (13-10 and 13-11) combine all three zones and describe the indicated and inferred resource present if you could mine to the mineralized solid boundaries. No external dilution has been applied.

Table 14-10 Blue Moon Mineralized Portion of Blocks – Classed Indicated

Cut-Off ZnEq (%)	Tons > Cut-Off (tons)	Grade > Cut-Off					ZnEq (%)	Contained Metal				
		Zn (%)	Cu (%)	Ag (oz/t)	Au (oz/t)	Pb (%)		Mlbs Zn	Mlbs Cu	Mlbs Pb	Mozs Ag	Mozs Au
		1.0	6,210,000	3.60	0.40	0.88		0.02	0.17	5.88	446.75	49.80
2.0	5,220,000	4.12	0.46	1.01	0.03	0.19	6.72	430.44	47.71	19.42	5.27	0.141
3.0	4,220,000	4.73	0.53	1.16	0.03	0.22	7.74	399.30	44.90	18.15	4.89	0.135
4.0	3,700,000	5.09	0.57	1.25	0.03	0.23	8.33	376.73	42.40	17.24	4.63	0.126
5.0	3,160,000	5.50	0.62	1.35	0.04	0.25	8.99	347.79	39.18	16.05	4.26	0.114
6.0	2,620,000	6.00	0.66	1.43	0.04	0.27	9.71	314.24	34.74	14.25	3.76	0.100
7.0	2,130,000	6.53	0.71	1.46	0.04	0.29	10.45	277.97	30.20	12.14	3.10	0.087
8.0	1,660,000	7.11	0.77	1.49	0.04	0.29	11.28	236.09	25.46	9.69	2.47	0.073

Table 14-11 Blue Moon Mineralized Portion of Blocks - Classed Inferred

Cut-Off ZnEq (%)	Tons > Cut-Off (tons)	Grade > Cut-Off					ZnEq (%)	Contained Metal				
		Zn (%)	Cu (%)	Ag (oz/t)	Au (oz/t)	Pb (%)		Mlbs Zn	Mlbs Cu	Mlbs Pb	Mozs Ag	Mozs Au
		1.0	12,140,000	2.40	0.23	0.67		0.02	0.17	4.00	581.75	55.84
2.0	7,840,000	3.25	0.27	0.95	0.03	0.24	5.40	508.97	42.18	36.85	7.45	0.204
3.0	5,160,000	4.20	0.32	1.25	0.03	0.31	6.93	433.85	32.82	32.10	6.44	0.175
4.0	4,090,000	4.82	0.35	1.41	0.04	0.35	7.84	394.52	28.38	28.55	5.76	0.155
5.0	3,330,000	5.39	0.38	1.53	0.04	0.38	8.61	358.91	25.04	25.24	5.09	0.130
6.0	2,710,000	5.91	0.40	1.64	0.04	0.41	9.32	320.48	21.73	22.06	4.43	0.111
7.0	2,060,000	6.55	0.43	1.80	0.04	0.44	10.21	269.90	17.63	18.21	3.71	0.091
8.0	1,430,000	7.32	0.46	2.12	0.05	0.49	11.41	209.44	13.27	13.96	3.04	0.069

Finally the indicated and inferred resource within the mineralized solids has been subdivided by mineralized lens into Main, West and East in Tables 14-12 to 14-16.

Table 14-12 Blue Moon Main Zone Mineralized Portion of Blocks - Classed Indicated

Cut-Off ZnEq (%)	Tons > Cut-Off (tons)	Grade > Cut-Off					ZnEq (%)	Contained Metal				
		Zn (%)	Cu (%)	Ag (oz/t)	Au (oz/t)	Pb (%)		Mlbs Zn	Mlbs Cu	Mlbs Pb	MoZs Ag	MoZs Au
1.0	5,300,000	3.85	0.44	0.99	0.03	0.18	6.34	407.99	46.11	19.40	5.26	0.138
2.0	4,760,000	4.18	0.47	1.07	0.03	0.20	6.88	398.13	44.55	18.94	5.10	0.138
3.0	3,910,000	4.76	0.54	1.22	0.03	0.23	7.85	372.23	41.99	17.91	4.75	0.129
4.0	3,470,000	5.10	0.58	1.30	0.04	0.25	8.41	353.66	39.91	17.21	4.52	0.121
5.0	2,980,000	5.51	0.62	1.40	0.04	0.27	9.05	328.10	37.01	16.03	4.17	0.110
6.0	2,480,000	5.99	0.66	1.48	0.04	0.29	9.75	297.30	32.84	14.19	3.67	0.097
7.0	2,010,000	6.55	0.71	1.51	0.04	0.30	10.53	263.31	28.50	12.14	3.04	0.084
8.0	1,550,000	7.17	0.77	1.55	0.05	0.31	11.42	222.24	23.84	9.67	2.41	0.070

Table 14-13 Blue Moon Main Zone Mineralized Portion of Blocks – Classed Inferred

Cut-Off ZnEq (%)	Tons > Cut-Off (tons)	Grade > Cut-Off					ZnEq (%)	Contained Metal				
		Zn (%)	Cu (%)	Ag (oz/t)	Au (oz/t)	Pb (%)		Mlbs Zn	Mlbs Cu	Mlbs Pb	MoZs Ag	MoZs Au
1.0	8,500,000	2.56	0.23	0.64	0.02	0.14	4.01	435.54	38.25	23.63	5.40	0.128
2.0	5,180,000	3.66	0.27	0.95	0.02	0.21	5.66	379.38	27.97	21.24	4.90	0.119
3.0	3,530,000	4.72	0.33	1.17	0.03	0.27	7.16	333.23	23.44	18.78	4.13	0.095
4.0	2,820,000	5.41	0.36	1.29	0.03	0.30	8.09	305.24	20.53	16.86	3.64	0.082
5.0	2,380,000	5.93	0.39	1.35	0.03	0.32	8.75	282.08	18.47	15.09	3.21	0.074
6.0	1,960,000	6.46	0.41	1.41	0.03	0.34	9.44	253.35	15.95	13.48	2.76	0.065
7.0	1,540,000	7.08	0.43	1.52	0.04	0.38	10.25	218.03	13.21	11.58	2.33	0.054
8.0	1,060,000	7.89	0.46	1.77	0.04	0.42	11.47	167.27	9.75	8.84	1.88	0.042

Table 14-14 Blue Moon West Zone Mineralized Portion of Blocks – Classed Indicated

Cut-Off ZnEq (%)	Tons > Cut-Off (tons)	Grade > Cut-Off					ZnEq (%)	Contained Metal				
		Zn (%)	Cu (%)	Ag (oz/t)	Au (oz/t)	Pb (%)		Mlbs Zn	Mlbs Cu	Mlbs Pb	Mozs Ag	Mozs Au
		1.0	910,000	2.13	0.20	0.24		0.01	0.10	3.17	38.77	3.71
2.0	460,000	3.51	0.35	0.37	0.02	0.05	5.04	32.26	3.18	0.47	0.17	0.007
3.0	310,000	4.37	0.46	0.46	0.02	0.03	6.28	27.08	2.84	0.18	0.14	0.006
4.0	230,000	5.01	0.54	0.50	0.02	0.02	7.23	23.03	2.48	0.08	0.12	0.005
5.0	190,000	5.46	0.60	0.53	0.03	0.01	7.94	20.75	2.28	0.05	0.10	0.005
6.0	130,000	6.04	0.69	0.57	0.03	0.01	8.89	15.70	1.79	0.03	0.07	0.004
7.0	130,000	6.13	0.71	0.57	0.03	0.01	9.06	15.93	1.85	0.03	0.07	0.004
8.0	110,000	6.28	0.74	0.59	0.03	0.01	9.33	13.81	1.62	0.02	0.06	0.004

Table 14-15 Blue Moon West Zone Mineralized Portion of Blocks – Classed Inferred

Cut-Off ZnEq (%)	Tons > Cut-Off (tons)	Grade > Cut-Off					ZnEq (%)	Contained Metal				
		Zn (%)	Cu (%)	Ag (oz/t)	Au (oz/t)	Pb (%)		Mlbs Zn	Mlbs Cu	Mlbs Pb	Mozs Ag	Mozs Au
		1.0	1,808,101	1.45	0.24	0.18		0.01	0.07	2.38	52.47	8.82
2.0	1,046,530	1.86	0.29	0.22	0.01	0.07	2.94	38.83	6.11	1.55	0.23	0.008
3.0	263,126	2.92	0.41	0.31	0.01	0.07	4.45	15.35	2.14	0.35	0.08	0.003
4.0	126,804	3.71	0.52	0.37	0.02	0.07	5.67	9.41	1.31	0.17	0.05	0.002
5.0	57,609	4.81	0.59	0.49	0.02	0.03	7.21	5.54	0.68	0.04	0.03	0.001
6.0	44,557	5.14	0.60	0.53	0.03	0.02	7.72	4.58	0.53	0.02	0.02	0.001
7.0	29,333	5.55	0.62	0.55	0.03	0.02	8.33	3.25	0.36	0.01	0.02	0.001
8.0	22,441	5.88	0.62	0.54	0.03	0.02	8.67	2.64	0.28	0.01	0.01	0.001

Table 14-16 Blue Moon East Zone Mineralized Portion of Blocks – Classed Inferred

Cut-Off ZnEq (%)	Tons > Cut-Off (tons)	Grade > Cut-Off					ZnEq (%)	Contained Metal				
		Zn (%)	Cu (%)	Ag (oz/t)	Au (oz/t)	Pb (%)		Mlbs Zn	Mlbs Cu	Mlbs Pb	Mozs Ag	Mozs Au
		1.0	1,840,000	2.56	0.24	1.29		0.05	0.39	5.59	94.13	8.72
2.0	1,620,000	2.82	0.25	1.44	0.05	0.44	6.16	91.27	8.13	14.09	2.34	0.083
3.0	1,380,000	3.13	0.27	1.63	0.06	0.47	6.81	86.33	7.37	13.05	2.25	0.077
4.0	1,140,000	3.50	0.29	1.81	0.06	0.50	7.47	79.73	6.54	11.47	2.06	0.068
5.0	890,000	3.99	0.33	2.07	0.06	0.57	8.33	71.09	5.87	10.09	1.84	0.056
6.0	700,000	4.43	0.37	2.34	0.07	0.61	9.10	61.99	5.18	8.51	1.64	0.046
7.0	490,000	4.97	0.41	2.78	0.07	0.67	10.20	48.66	4.06	6.61	1.36	0.035
8.0	340,000	5.67	0.47	3.32	0.08	0.74	11.42	38.57	3.16	5.03	1.13	0.026

15.0 MINERAL RESERVES

Not applicable for a geologic resource.

16.0 MINING METHODS

Not applicable for a geologic resource.

17.0 RECOVERY METHODS

Not applicable for a geologic resource.

18.0 PROJECT INFRASTRUCTURE

Not applicable for a geologic resource.

19.0 MARKET STUDIES AND CONTRACTS

Not applicable for a geologic resource.

20.0 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

Not applicable for a geologic resource.

21.0 CAPITAL AND OPERATING COSTS

Not applicable for a geologic resource.

22.0 ECONOMIC ANALYSIS

Not applicable for a geologic resource.

23.0 ADJACENT PROPERTIES

At the present, there are no adjacent properties with similar mineralization to the Blue Moon property. However, when Blue Moon was mined during the Second World War, its ore was trucked to the nearby gold mine facility at the abandoned Jenny Lind Mine to be milled. The Jenny Lind Mine, which also included the Washington Mine with which it was consolidated, produced a recorded \$1.1 million of gold before it closed in 1882. Whether or not the mineralization at the Jenny Lind Mine was similar to that at Blue Moon is not reported by Meade.

24.0 OTHER RELEVANT DATA AND INFORMATION

No relevant data or information has knowingly been omitted by the author.

25.0 INTERPRETATION AND CONCLUSIONS

The Blue Moon deposit hosts an and indicated resource of 3.7 million tons grading 5.09% Zn, 0.57% Cu, 0.23% Pb, 1.25 oz/ton Ag, and 0.03 oz/ton Au, (8.3% Zinc Equivalent (ZnEq)) and inferred resource of 4.1 million tons grading 4.82% Zn, 0.35% Cu, 0.35% Pb, 1.41 oz/ton Ag, and 0.04 oz/ton Au (7.8% ZnEq) within the mineralized zones and using a ZnEq cut-off of 4%.

Given the advanced stage of this project, it may be reasonable to carry out a preliminary economic assessment study to update the existing economic potential of the deposit.

Depending on the results of the preliminary economic assessment study, a drilling program may be required to increase the confidence in the resource estimate, produce more samples for metallurgical testing, as well as samples ABA testing of the lithologies.

26.0 RECOMMENDATIONS

Given the advanced stage of this project, it may be reasonable to carry out a preliminary economic assessment study to update the existing economic potential of the deposit.

Further drilling is warranted and a general summary of recommended drilling to fill-in gaps in the geological interpretation for the Blue Moon deposit is included in Table 26-1.

Table 25-1 Summary of Recommended Drilling

Shallow Drillholes	Estimated DH Depth (ft)
Section 7000	600
Section 7000	900
Section 7400	500
Section 7600	800
Section 7600	1200
Section 8000	500
Section 8200	500
Section 8400	700
Section 8800	500
Medium Depth Drillholes	
Section 7600	1000
Section 7800	1300
Section 8400	1200
Deep Drillholes	
South of Section 7000	2500
Section 8200	2500
Section 8600	2500
Total Drilling =	17,200

Using an estimated cost of \$90/ft, the cost of the proposed drill program is estimated to be \$1,500,000. With a contingency included and preliminary geotechnical, ARD, and metallurgical work, the exploration program could cost approximately \$2,000,000.

27.0 REFERENCES

Briggs, B. 1989, Westmin Mines Limited Blue Moon Project Mining Plan, private company report dated December 1989.

Leader, J. 1987, Colony Pacific Explorations Ltd. Blue Moon Project Mariposa California, private company report, dated November 27, 1997.

Martin, R.C. 1988, Volcanogenic massive sulphide belt of the Western Sierra Nevada foothills, California Geology, September 1998, p 1995-204.

Meade H. D. 2002, Summary Report on Geological, Engineering and Economic Evaluation on Blue Moon Property Mariposa County, California. Private report prepared for Expatriate Resources Ltd., dated September 12, 2002.

Meade H.D. and MacVeigh, G. 1995, Blue Moon, private company report for Westmin Resources Limited dated October 1995.

Meade H. D. 1996, Addendum to Blue Moon Report, private company report for Westmin Resources Limited, dated April 3, 1996.

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Morris, R.J. and Giroux, G. 2008, Resource Estimate for the Blue Moon Massive Sulphide Occurrence, 43-101 Report for Savant Explorations Ltd., February 7, 2008.

Terry, D.A., 1998, Exploration Proposal for the Blue Moon Project, Mariposa County, California, private company report for Boliden Limited, June 11, 1988.

Thompson, I.S. 1995, Valuation of the Blue Moon Property, California for Colony Pacific Explorations Ltd., private company report dated October 12, 1995.

28.0 CERTIFICATES

CERTIFICATE G.H. Giroux

I, G.H. Giroux, of 982 Broadview Drive, North Vancouver, British Columbia, do hereby certify that:

- 1) I am a consulting geological engineer with an office at 982 Broadview Drive, North Vancouver, British Columbia.
- 2) I am a graduate of the University of British Columbia in 1970 with a B.A. Sc. and in 1984 with a M.A. Sc., both in Geological Engineering.
- 3) I am a member in good standing of the Association of Professional Engineers and Geoscientists of the Province of British Columbia.
- 4) I have practiced my profession continuously since 1970. I have had over 40 years' experience estimating mineral resources. I have previously completed resource estimations on a wide variety of massive sulphide deposits including Myra Falls, Wolverine and Marg.
- 5) I have read the definition of "qualified person" set out in National Instrument 43-101 and certify that by reason of education, experience, independence and affiliation with a professional association, I meet the requirements of an Independent Qualified Person as defined in National Instrument 43-101.
- 6) This report titled "Resource Estimate for the Blue Moon Massive Sulphide Occurrence" dated October 5, 2017, is based on a study of the data and literature available on the Blue Moon Property. I am responsible for Section 14, outlining the resource estimations completed in Vancouver during 2007. I have not visited the property.
- 7) I have previously estimated a Resource for this property in 2007.
- 8) As of the date of this certificate, to the best of my knowledge, information and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.
- 9) I am independent of the issuer applying all of the tests in section 1.4 of National Instrument 43-101.
- 10) I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

Dated this 5th day of October, 2017

"signed and sealed"

G. H. Giroux, P.Eng., MASc.

CERTIFICATE OF QUALIFICATION

I, Lawrence J. O'Connor of Reno, Nevada, USA do hereby certify that:

1. I am an independent consulting geologist with an office at 10220 Hawkeye Circle, Reno, Nevada, 89523 USA.
2. I graduated from Fort Lewis College in Durango, Colorado, USA and was awarded a Bachelor of Science degree in Geology in 1984.
3. I am in good standing as a Registered Member of the Society for Mining Metallurgy and Exploration (SME), R.M. #4063116.
4. I have practiced my profession within the natural resource industry continuously for the past 33 years. My experience includes exploration, property evaluations, surface and underground operations, ore control geology, resource/reserve modeling, mine engineering, process management, reclamation and closure, and mines management as G.M. and V.P. Ops. By reason of education and experience I am knowledgeable of massive sulphide deposits.
5. I am responsible for all sections of the report except for Section 14 of the technical report titled "Resource Estimate for the Blue Moon Massive Sulphide Occurrence", dated October 5th, 2017.
6. I have personally inspected the Blue Moon Massive Sulphide project on June 6th, 7th and 8th, on July 25th and 26th, and on September 19th, 20th and 21st, 2017.
7. I am not independent of the company as I am a Technical Advisor to the company and have share options in the company.
8. I have had no previous involvement with the Blue Moon property that is the subject of this Technical Report.
9. I have read National Instrument 43-101 and Form 43-101F1 and, by reason of education and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101. This technical report has been prepared in compliance with National Instrument 43-101 and Form 43-101F1;
10. As of the date of this certificate, to the best of my knowledge, information and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

DATED on this 5th day of October, 2017.

"signed and sealed"

Lawrence J. O'Connor, BSc, RM-SME