

The Geology & Mineralization at the Cu-Au-Ag Monitor Mine Property, Eastern Coeur d'Alene Mining District, Shoshone County, Idaho, USA.

UTM 607900-5244900 (NAD 83 datum).

**A National Instrument 43-101 Technical Report
for:**

**Archean Star Resources Inc.
410-744 West Hastings Street
Vancouver, BC, Canada V6C 1A5
Tel: 604-684-3394**

By

**Gerald E. Ray, Ph.D., P. Geo.
Registered Professional Geologist, License No. 19503
Province of British Columbia, CANADA
10th February 2013**

TABLE OF CONTENTS

1.0 SUMMARY	5
2.0 INTRODUCTION.....	9
3.0 RELIANCE ON OTHER EXPERTS.....	11
4.0 PROPERTY DESCRIPTION AND LOCATION	13
4.1 Property Description.....	13
4.2 Property Location	15
4.3 Archean's Interest in the Monitor Property	15
4.4 Native Title.....	15
5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY	15
6.0 HISTORY.....	18
7.0 GEOLOGICAL SETTING & MINERALIZATION.....	23
7.1 District Geology	23
7.1a Sedimentary Rocks.....	23
7.1b Intrusive Rocks	26
7.1c District Structural Geology.....	27
7.1d District Mineralization.....	28
7.2 Property Geology	30
7.3 Property Mineralization.....	30
8.0 DEPOSIT TYPE	36
9.0 EXPLORATION	38
9.1 Introduction.....	38
9.2 Geological Mapping & Prospecting	38
9.3 Sampling Method and Approach.....	38
10.0 DRILLING	38
11.0 SAMPLING PREPARATION, ANALYSES AND SECURITY	38

12.0 DATA VERIFICATION	39
13.0 MINERAL PROCESSING AND METALLURGICAL TESTING	39
14.0 MINERAL RESOURCE ESTIMATES	39
15.0 MINERAL RESERVE ESTIMATES.....	40
16.0 MINING METHODS	40
17.0 RECOVERY METHODS	40
18.0 PROJECT INFRASTRUCTURE	40
19.0 MARKET STUDIES AND CONTRACTS.....	40
20.0 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT	40
21.0 CAPITAL AND OPERATING COSTS.....	40
22.0 ECONOMIC ANALYSIS	40
23.0 ADJACENT PROPERTIES.....	40
24.0 OTHER RELEVANT DATA AND INFORMATION	44
25.0 INTERPRETATION AND CONCLUSIONS	44
26.0 RECOMMENDATIONS.....	45
27.0 REFERENCES.....	48
28.0 DATE & AUTHOR SIGNATURE.....	50
29.0 CERTIFICATE OF AUTHOR	50
30.0 APPENDICES.....	52

LIST OF FIGURES

Figure 1: Location of the Monitor Property in northern Idaho, NW United States.....	11
Figure 2: Location and distribution of twenty claims comprising the Monitor Property	14
Figure 3: Generalized Belt Super-group stratigraphy in the Coeur d'Alene Mining District with average thicknesses to scale. From White et al. (2000)	25

Figure 4: Belt Super-group stratigraphy and its sedimentary rock-types seen south of the Osburn Fault (from Winston, 2000).	26
Figure 5: Distribution of the Belt Super-Group and the locations of the Lewis and Clark Line and the Noxon Arch.	28
Figure 6: The major mines in the Coeur d'Alene Mining District, showing the location of the "Silver Belt" and some major faults (from Mauk and White, 2004).	29
Figure 7: The location of other historic small mines in the vicinity of the Monitor Mine property.	41
Figure 8: The location of major mines lying north-west of the Monitor Property, Coeur d'Alene District.	42

LIST OF TABLES

Table 1: List of the twenty claim units comprising the Monitor Mine Property, Coeur d'Alene.	13
Table 2: List of the 1481.7 tons of ore shipped via 50 cars from the Monitor Mine to the smelter between 1900 and 1908 (from an undated report by the Montana-Idaho Copper Company).	21
Table 3: List of the 1561 tons of ore shipped via 53 ore-cars from the Monitor Mine to the smelter between 1900 and 1908 (from Spalding, 1913).	22
Table 4: Description and location of fifteen waste-dump rock grab samples collected by the author from the Monitor property.	32
Table 5: Assay results for fifteen waste-dump rock grab samples collected by the author from the Monitor property. Anomalous values in bold red.	32
Table 6: Itemized costs of the recommended exploration during 2013 at the Monitor Property.	47

TABLE OF PHOTOS

Photo 1: The Forest Service Road No. 1187 that leads to the Monitor Mine property.	16
Photo 2: View looking SW down Mineral Creek, taken from the collapsed Richmond Adit (UTM 607579-5243192; elevation 1717 meters asl).	17
Photo 3: The collapsed Richmond Adit looking north, UTM 607579-5243192.	20
Photo 4: Mineralized sample MON-08 taken from the Monitor Shaft waste dump (UTM 607916-5244876; elevation 1796 meters asl).	31
Photo 5: Cu-oxide stained siderite-altered rocks on the Richmond Adit waste dump, UTM607579-5243192	34

Photo 6: Sampling the snow-covered Monitor Shaft waste dump at UTM 607916-5244876; elevation 1796 meters asl.	35
Photo 7: The collapsed Monitor Shaft, UTM 607916-5244876.	35

LIST OF APPENDICES

Appendix A: Option and Joint Venture Agreement between ASR and AMCOR.....	52
Appendix B: List of Present and Planned Expenditure on the Monitor Property in 2013.....	97

1.0 SUMMARY

The Monitor Mine Cu-Au (Ag) property comprises a package of twenty (20) unpatented claim units that total 401.56 acres in area. On the 5th of February 2013 Archean Star Resources Inc. (ASR) signed an Option and Joint Venture Agreement (Appendix A) with Northern Adventures LLC (NALLC) and the American Cordillera Mining Corporation (AMCOR). On completion of the terms of this agreement ASR will earn an 80% ownership in the property. NALLC, under the chairmanship of prospector Mr. Martin Clemets, is the original owner of the claims while AMCOR holds the mining lease.

The claims are located in Shoshone County in the eastern part of Idaho's Coeur d'Alene Mining District, close to the Idaho-Montana state borders (Figure 1). They lie at UTM 607900-5244900 (NAD83 datum), approximately 140 km east of Spokane, Washington, 36 km north-west of Osburn, Idaho and 25 km east-southeast of Wallace, Idaho.

The property is road accessible (Photo 1). From Spokane, access can be made by heading east on Interstate Highway 90 towards the Coeur d'Alene Mining District, passing by the mining towns of Wallace, Kellogg and Osburn. Approximately 99 miles from Spokane, Highway 90 crosses Lookout Pass and enters Montana. Six miles further on, a turnoff is taken at Exit 5 which leads southeasterly on the Rainy River Road and Forest Service Road No. 506. Approximately four miles from Exit 5, another turnoff is made along Forest Service Road No. 1187 (Photo 1). After a further six mile-long drive the Monitor Property is then reached.

Details of the twenty claim units, which are all valid until the 30th of August 2013, are listed below.

Claim Number	County Recording No.	IMC/BLM No.	Size (acres)
Monitor 108	469395	211608	20.66
Monitor 109	469396	211589	20.66
Monitor 110	469397	211590	20.66
Monitor 111	469398	211591	20.66
Monitor 113	469399	211592	20.66
Monitor 126	469400	211593	20.66
Monitor 127	469401	211594	20.66
Monitor 128	469402	211595	20.66
Monitor 129	469403	211596	20.66
Monitor 130	469404	211597	20.66
Monitor 132	469405	211598	19.7
Monitor 134	469406	211599	9.98
Monitor 205	469407	211600	20.66
Monitor 207	469408	211601	20.66
Monitor 208	469409	211602	20.66
Monitor 209	469410	211603	20.66
Monitor 210	469411	211604	20.66

Claim Number	County Recording No.	IMC/BLM No.	Size (acres)
Monitor 211	469412	211605	20.66
Monitor 220	469413	211606	20.66
Monitor 222	469414	211607	20.66

TOTAL SIZE OF THE MONITOR CLAIM BLOCK = 401.56 acres

The claim block lies in an area of relatively steep and rugged tree-covered terrane on the high western slopes of the Bitterroot Mountains. It is situated within the North Fork St. Joe River watershed close to the headwaters of Mineral Creek at an elevation between 5500 and 6100 feet asl (Figure 2). The area is covered with extensive conifer forest (Photos 1 and 2). It has a cold, moist climate in winter and warm, dryer conditions in summer. At somewhat lower elevations in the district, the US Weather Bureau records monthly daily mean temperatures for January of 28.4 °F (-2.0 °C) and 69.2 °F (20.7 °C) for August. Snowfall averages 46 inches (117 cm) per year. All parts of the property are accessible by foot and there are several historic mining and logging roads that can be driven by 4-wheel-drive vehicles. Many of the deep valleys have permanent flowing water.

The Coeur d'Alene district has had more than one hundred years of underground mining (Ransome and Calkins, 1908), which continues to this day (Hobbs et al., 1965; Bennett, 2006). It is famed for its mesothermal silver-lead-zinc-(copper) vein deposits and has been one of the primary silver producing areas in the world. Consequently, it has an extensive mining and prospecting culture and is a source of experienced contract labor and mining equipment.

There are at least two known sulfide-rich structures on the property: the Monitor and Richmond veins, which reportedly reach up to 15 feet in thickness and are known to extend to a depth of 700 feet. The Monitor Vein strikes ESE, sub-parallel to the main trend of all the major brittle structures in the district while historic documents report that the Richmond Vein had a south-west to WSW strike. Both veins contain chalcopyrite, pyrite, chalcocite and trace bornite together with abundant secondary copper minerals. The main gangue is pervasive siderite which is cut by multiphase quartz veining. Surface waste dumps indicate the presence of at least five historic vertical shafts. These include one 700 foot deep shaft driven on the Monitor Vein (the "Monitor Shaft") and four closely spaced shafts between 40 and 175 feet deep on the Richmond Vein (the "Richmond Shafts"). In addition there are two portal adits that lead into horizontal tunnels that were driven to intersect the Richmond and Monitor veins (Photo 3).

There is relatively little reliable information regarding the historic exploration and construction of these workings during the early 1900's. Since the late 1920's no significant exploration has reportedly been conducted on the property. Historic reports by the Montana-Idaho Copper Company and Spalding (1913) indicate that between 1900 and 1908 more than 50 carloads of copper-rich material totaling 1561 short tons were shipped to a smelter (Tables 2 and 3). This reportedly had an average grade of 14.92% Cu, 0.24 oz/ton Au and 0.76 oz/ton Ag. However, this historic data is not NI 43-101 compliant and should be regarded with extreme caution by the

reader. It should also be noted that no mineral reserves or resources have been identified on the Monitor property to date.

The geology of the Coeur d'Alene Mining District is dominated by mid-Proterozoic (1.4 to 1.5 Ga) basin-fill sedimentary rocks of the Belt Super-group (Winstone, 2000). Rifting and subsidence at that time resulted in the deposition a stratigraphic package that exceeded 7 km in thickness. The Monitor property is largely underlain by low metamorphic grade metasediments of the Wallace Group which lie in the upper part of the Belt succession (Figures 3 and 4). The Wallace Group includes non-bedded and bedded quartzites, impure carbonates, dolomites and minor argillites and siltstones, and these rocks host the Monitor and Richmond veins. The metasediments are intruded by some thin gabbroic dikes that are thought to mostly belong to the mid-Proterozoic-age Wishard Sill suite.

During my two day visit to the property (25th and 26th October 2012) I collected fifteen (15) mineralized rock grab samples (MON-01 to MON-15; Table 4) from waste dumps at the Richmond and Monitor shafts and the Richmond adit. These were submitted to the certified ALS Chemex Laboratory in Reno, NV. Thirteen (13) of the fifteen (15) samples contained >1% Cu and five samples contained >0.5 g/t Au. The maximum assays recorded were 13.55% Cu, 15.45 g/t Au and 57.7 g/t Ag (Table 5) which confirms historic reports that the two veins contain high grade copper-gold-silver mineralization. However, the reader is cautioned that there was sample bias because only rocks with visible secondary Cu minerals or Cu sulfides were selected for assay. Thus the assay results are not reliable for determining average metal grades.

ASR's exploration will be focused on finding Cu-Au-Ag veins of sufficient grade and tonnage to support an underground mining operation that may also include some heap leach techniques. As soon as weather permits, ASR intends to start a program that will include both underground and surface exploration. At least four phases, of initial exploration are recommended, namely:

- (i) Re-opening and renovating the old underground Monitor and Richmond mine tunnels, to be followed by channel and bulk sampling the veins. This work will determine the true length and orientation of the tunnels, and will provide information on the width, strike and metal-grades of the Monitor and Richmond veins.
- (ii) Complete surface geologic mapping, prospecting, and geochemical soil sampling to locate any strike extensions of the Richmond and Monitor veins, and discover if any other mineralized structures exist on the claim block.
- (iii) Conduct ground and/or aerial geophysical surveys after consultation with a geophysicist. This should be done to outline any extensions of the two known veins as well as hopefully discover more mineralized structures.
- (iv) Once the permitting process is completed and final interpretations of the geophysical and soil geochemical data are reviewed, ASR should select and test targets with a diamond drill program. Drilling may be done from both surface and underground drill pads.

To date ASR has spent US\$159,430 on the Monitor property. The costs of the various exploration phases to be undertaken up to the end of 2013 are estimated to be US\$4,047,178 (Appendix B). These are itemized as follows:

Monitor Project Expenses - Forecast to Dec 2013		Total US\$
Acquisition & Holding		84,000
Assay & Analysis		60,000
Communications		6,000
Consultants		87,000
Drilling		550,000
Equipment Rental		10,500
Field costs		435,000
Drilling ventilation channel & bulk sampling tests		95,000
Geologists wages		260,000
Geophysical survey		130,000
Geotech costs		25,000
Haulage		52,500
Insurance		18,000
Bulk Sample Mining		675,000
Mobilize/Demobilize		83,500
Office & Storage		36,000
Permitting		37,000
Reclamation Bond Drill		18,000
Rentals		36,000
Reports		30,000
Shipping		8,000
Supplies		115,000
Travel & Accom		57,000
<i>Subtotal</i>		<u>2,908,500</u>
Contingency	10%	290,850
<i>Subtotal</i>		<u>3,199,350</u>
Project Overhead	10%	319,935
<i>Subtotal</i>		<u>3,519,285</u>
Administration	15%	527,893
Total Projection		<u>4,047,178</u>

2.0 INTRODUCTION

Archean Star Resources Inc. (ASR) contracted the author (G.E. Ray) to prepare this National Instrument 43-101 technical report on their Monitor Mine copper-gold-silver property in northern Idaho. It comprises twenty (20) lode mining claims totaling approximate 401.56 acres (Figure 2; Table 1). The property, which is located in the eastern part of Idaho's Coeur d'Alene Mining District, lies approximately 140 km east of Spokane, Washington, and 36 km north-west of Osburn, Idaho. This report is part of the listing requirements for the TSX Venture Exchange. The primary focus of ASR's proposed exploration program is to evaluate the economic potential of several extensive steep-dipping sulfide-rich Cu-Au-Ag-bearing vein systems that were historically mined around the early 1900s. Smelter returns indicate that during this early underground mining some 1561 short tons of mineralized material were shipped (Tables 2 and 3). However, the reader is cautioned that this historic data is not compliant with NI 43-101 standards and cannot be relied upon.

I spent two days on the Monitor property (25th and 26th October 2012) although both the road access and work were impeded by heavy snow (Photos 1, 2 and 3). During my visit I was accompanied by ASR's President, Graeme O'Neill, ASR's exploration manager, Clay Conway, and property owner, Martin Clemets. I examined some rock outcrops and collected fifteen (15) mineralized rock samples from three of the old mine waste dumps; these dumps lie adjacent to the historic shafts and adits. The sampled waste-rock workings were those near the "Richmond Shafts", the "Monitor Shaft" and the "Richmond Adit" (Figure 2). The rock samples (MON-01 to MON-15; Tables 4 and 5) were submitted to the certified ALS Chemex laboratory in Reno, Nevada for precious and base metal assay. Of the fifteen (15) samples, thirteen (13) assayed >1% Cu with one sample containing a maximum of 13.5% Cu (Table 5). Five of the samples contained >0.5 g/t Au with a maximum value of 15.4 g/t Au; one sample assayed 57.7 g/t Ag (Table 5).

The rock types seen on the mine dumps are mostly Meso-proterozoic Wallace Formation sedimentary rocks that host pyrite-chalcopyrite mineralization with chalcocite and trace bornite, together with siderite and multiphase quartz veining. Many of the oxidized rocks are coated with various blue, green and black secondary copper minerals including malachite, azurite and Cu-Mn wad.

The assay results in Table 5 support historic reports that the mined copper mineralization contained significant quantities of gold and silver and these three metals will be the main focus of ASR's upcoming exploration effort. The reader is cautioned that there is no mineral or metal resource known on the Monitor claims. The Monitor represents a grassroots property because, to my knowledge, during the last eighty years there has been little significant exploration done, including no drilling, geophysics or soil geochemical sampling. Thus, although the copper mineralization seen in the waste dumps and the copper-gold assays presented in Table 5 look impressive, the full economic potential of the Monitor property is unknown.

In addition to field observations made by myself, other information in this report was obtained from either published papers as referenced in Section 27 (below) or from unpublished maps and reports and verbal information given to me by Martin Clemets and Graeme O'Neill. The certified geochemical assay data listed in Table 5 for the fifteen (15) samples (MON-01 to MON-15) were obtained from the ALS Chemex Laboratory at 4977 Energy Way, Reno, NV 89502-4105 (Tel 775 356 5395).

Units of measurement and weights mentioned in this report use either the Metric or the Imperial systems. Analytical results are stated in percentage (%), parts per million (ppm), grams per metric tonne (g/t), ounces per ton (oz/ton) or parts per billion (ppb). Distances are in imperial feet (ft) and miles or centimeters (cm), meters (m) and kilometers (km). Area sizes are given in acres or hectares. Metric weight units include tonnes, kilograms (kg), grams (g), and million metric tonnes (Mt). Imperial weight units include short tons (t) and million ounces (Moz).

Element abbreviations include Au (gold), Ag (silver), Cu (copper), Pb (lead), Zn (zinc), Bi (bismuth), As (arsenic), Ni (nickel), Mo (molybdenum), Sb (antimony), W (tungsten), Sn (tin), Co (cobalt), Hg (mercury), La (lanthanum), Ce (cerium) and Fe (iron).

The UTM locations I recorded were obtained using a Garmin hand-held GPS 76CSx unit. All UTM readings in this report use the NAD 83 datum.

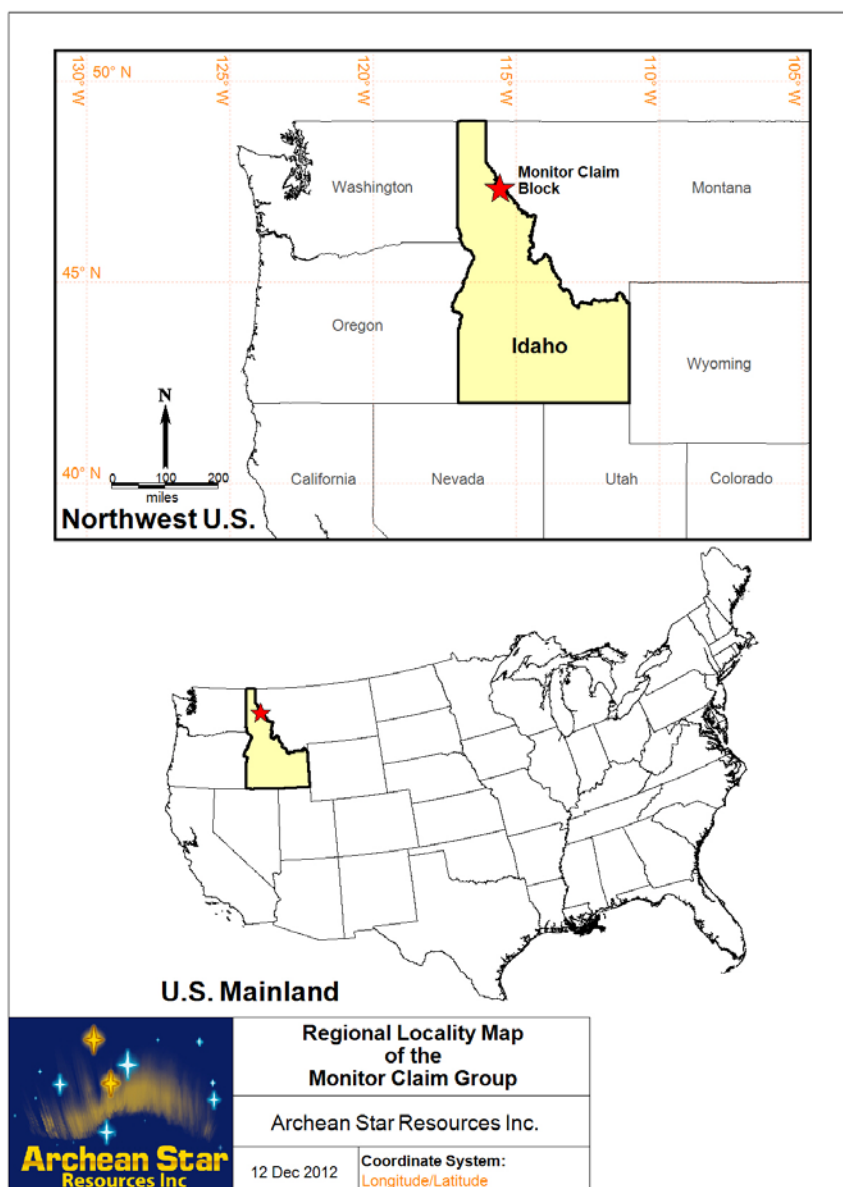


Figure 1: Location of the Monitor Property in northern Idaho, NW United States.

3.0 RELIANCE ON OTHER EXPERTS

This report is not intended to assess potential environmental, political or legal issues or liabilities regarding the Monitor property. The information contained in this document is a summary and is not a complete account of previous exploration on the property, since relatively little reliable historic data is available. All locations are subject to survey. Conversions from imperial to metric units or vice-versa are approximate.

I have relied extensively upon information provided by ASR representatives, including the Option and Joint Venture Agreement (Appendix A), to describe how they will obtain their 80% ownership of the Monitor property, as well as on the data that describes the Idaho exploration rights, surface rights, obligations and mineral property dimensions and coordinates. ASR also provided the data of planned exploration expenditures detailed in Appendix B.

I am not competent to comment on the ownership or the Idaho mining rights and land titles. However, on this and for information presented in Figure 2 and Table 1, I have relied on reports, maps and data provided by ASR.

In an email dated the 12th of December 2012, Mr. Graeme O'Neill, President of ASR, informed me that the company has paid all taxes for the Monitor property and that no other taxes, duties, fees, environmental liabilities or debts are due at this time. I was further informed that there are no liens or other outstanding third party debts or current or pending litigation that may be material to the Monitor property assets. ASR assumes full responsibility for statements on mineral title and ownership, and I do not accept any responsibility for errors pertaining to this information.

In addition to field observations made by myself, most of the information in this report was obtained from published reports (Section 27) as well as unpublished maps and reports given to me by Mr. Martin Clemets of NALLC and the ASR staff.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 Property Description

The Monitor property comprises a package of twenty (20) unpatented lode mining claims totaling an approximate 401.56 acre area (Figure 2; Table 1).

Table 1: List of the twenty claim units comprising the Monitor Mine Property, Coeur d'Alene.

Shoshone County, Sections 8, 9 & 10 Township 46N Range 7E.

Note: all twenty claims are valid till the 30th of August 2013

Claim Number	County Recording No.	IMC/BLM No.	Size (acres)
Monitor 108	469395	211608	20.66
Monitor 109	469396	211589	20.66
Monitor 110	469397	211590	20.66
Monitor 111	469398	211591	20.66
Monitor 113	469399	211592	20.66
Monitor 126	469400	211593	20.66
Monitor 127	469401	211594	20.66
Monitor 128	469402	211595	20.66
Monitor 129	469403	211596	20.66
Monitor 130	469404	211597	20.66
Monitor 132	469405	211598	19.7
Monitor 134	469406	211599	9.98
Monitor 205	469407	211600	20.66
Monitor 207	469408	211601	20.66
Monitor 208	469409	211602	20.66
Monitor 209	469410	211603	20.66
Monitor 210	469411	211604	20.66
Monitor 211	469412	211605	20.66
Monitor 220	469413	211606	20.66
Monitor 222	469414	211607	20.66

TOTAL SIZE OF THE MONITOR CLAIM BLOCK = 401.56 acres

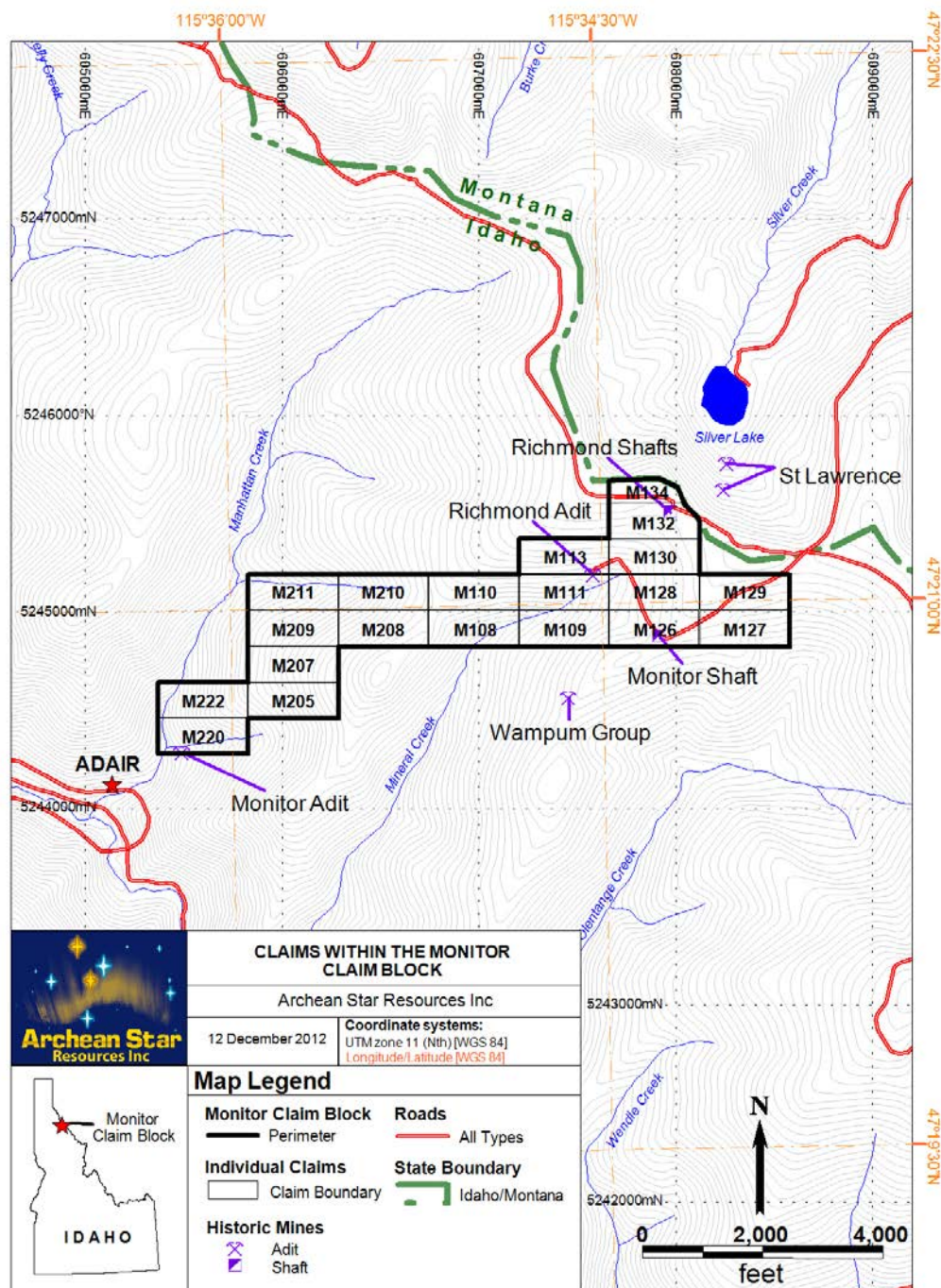


Figure 2: Location and distribution of twenty claims comprising the Monitor Property

4.2 Property Location

The Monitor Mine property lies on the high western slopes of the Bitterroot Mountains, in Township sections 8, 9 and 10, T46N, R7E of Shoshone County, Idaho, close to the Idaho-Montana state borders (Figures 1 and 2). It is centered close to UTM 607900-5244900 (NAD 83 datum) and lies approximately 140 km east of Spokane, 36 km north-west of Osburn and 25 km east-southeast of Wallace, Idaho.

4.3 Archean's Interest in the Monitor Property

Under an Option and Joint Venture Agreement dated the 5th of February, 2013 ASR have come to an agreement with NALLC and the AMCOR to earn an 80% ownership of the property (Appendix A). NALLC, under the chairmanship of Mr. Martin Clemets, is the original owner of the claims while AMCOR holds the mining lease.

The reader is cautioned that no mineral reserves or resources have been identified on the Monitor property to date. Currently, there are no known risk factors that would impede access to the property or the ability by ASR to complete exploration.

4.4 Native Title

In a document dated the 28th of January, 2013, Mr. Martin Clemets of NALLC stated that to the best of his knowledge there are no native claims to any parts of the Monitor property or anywhere within the area of influence covered by the agreement.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The Monitor Mine property lies in relatively steep and rugged tree-covered terrane on the high western slopes of the Bitterroot Mountains. It is situated within the North Fork St. Joe River watershed close to the headwaters of Mineral Creek (Figure 2) at an elevation between 5500 and 6100 feet asl. This area is characterized by a dendritic drainage pattern with steep stream channels. It is covered with extensive conifer forest (Photos 1 and 2).



Photo 1: The Forest Service Road No. 1187 that leads to the Monitor Mine property.

Taken on the 25th of October, 2012 at UTM 603425-5248218 at 1584 meters elevation asl.

The property, which is located in northern Idaho immediately adjacent to the western border of Montana (Figure 2), is road accessible (Photo 1). From Spokane, access is made by heading east on Interstate Highway 90 towards the Coeur d'Alene Mining District, passing by the mining towns of Wallace, Kellogg and Osburn. Approximately 99 miles from Spokane, Highway 90 crosses Lookout Pass and enters Montana. Six miles further on, a turnoff is taken at Exit 5 (located at UTM 605066-5252924) which leads southeasterly on the Rainy River Road and Forest Service Road No. 506. Approximately four miles from Exit 5, another turnoff is made along Forest Service Road No. 1187 (Photo 1). After a further six mile-long drive the Richmond shafts and mine dumps are reached; these lie at UTM 607973-5245506 at an elevation of 1836 meters asl (approximately 6023 feet).

Although parts of the property have steep terrane, all areas are accessible by foot. There are several old forest logging roads that can be driven by 4-wheel-drive vehicles.

The Coeur d'Alene district of northern Idaho has had more than one hundred years of underground mining (Ransome and Calkins, 1908), which continues to this day (Hobbs et al., 1965; Bennett, 2006). It is famed for its mesothermal silver-lead-zinc-(copper) deposits and has been one of the primary silver producing areas in the world. Consequently, it has an extensive mining and prospecting culture and is a source of experienced contract labor and mining equipment.

It has a cold, moist climate in winter and warm, dryer conditions in summer. For areas at lower elevations in the district, the US Weather Bureau records monthly daily mean temperatures for January of 28.4 °F (-2.0 °C) and 69.2 °F (20.7 °C) for August. Snowfall averages 46 inches (117 cm) per year; precipitation is generally lowest in summer. The frost-free season lasts about 120 days from mid-May to mid-September. Somewhat lower winter and summer temperatures can be expected at the 6000 foot elevation of the Monitor Mine property. A report prepared by MCS Environmental, Inc., (MCS, 2005) states that the Avery Ranger Station located 16 miles southwest of the property reported a mean annual precipitation of 37 inches and a mean annual snowfall of 80 inches.

The property lies below the tree-line and is heavily forested with numerous tree species, many with a preferred elevation growing range. The softwood forests includes ponderosa pine, lodgepole and western white pine, as well as hemlock, western larch, western red cedar, Engelmann spruce, Douglas-fir, subalpine fir, and grand fir.

The property, which totals 401.56 acres, includes steep forested hills with intervening steep stream valleys (Photos 1 and 2). It has a sufficient large size that it can accommodate all aspects of an underground mining operation, including areas for potential tailings storage, waste disposal, heap leach pads and processing plants.



Photo 2: View looking SW down Mineral Creek, taken from the collapsed Richmond Adit (UTM 607579-5243192; elevation 1717 meters asl).

Note the old tramway machinery in foreground and well forested hills beyond.

6.0 HISTORY

Surface waste dumps on the Monitor property indicate the presence of at least five vertical shafts. These include one 700 foot deep shaft on the Monitor Vein (the "Monitor Shaft") and four closely spaced shafts between 40 and 175 feet deep at the Richmond Vein (the "Richmond Shafts"). In addition there are two portal adits that lead into horizontal tunnels (the "Richmond" and "Monitor" adits), (Figure 2; Photo 3). There is relatively little reliable information regarding the historic exploration and construction of these workings, but apparently since the late 1920s no significant exploration has been conducted on the property. Consequently there is no evidence that any geophysics, drilling or methodical exploration soil geochemical sampling has occurred.

Much of the sparse data available regarding the early history of the mining activity is taken from a report by Spalding (1913) and an undated report written by the Montana-Idaho Copper Company staff sometime post-1918 titled "*To the Monitor Vein*" (Anonymous, 1918?). The latter documents states that the Monitor Vein was discovered in 1897 by prospector Bert Hill during a staking rush that occurred throughout the Coeur d'Alene Mining District. Hill recognized gold and silver-bearing copper mineralization at what later became the site of the Monitor Shaft; this locality lay only 2000 feet from the Richmond Vein workings which had been discovered previously by a prospector named Sutherland. There were problems with finance but Bert Hill had a prosperous brother named Otis who raised the necessary funds. Together they organized the Monitor Consolidation Company with Otis as its president.

Spalding (1913) describes how the property lay only 1500 feet from the Adair railway station (Figure 2), a station on the main line of the Chicago, Milwaukee and St. Paul Railway which was then in operation. He also mentions that a water-powered electrical generating station was being constructed in the valley below Adair Station; this power plant lay only 2000 feet from the site of a proposed portal. At the time Spalding (1913) wrote his report the 700 foot deep Monitor Shaft had already been completed. He recommended driving a northeasterly directed tunnel a horizontal distance of 7500 to 8000 feet to pass 110 feet below the deepest part of the Monitor Shaft. The first 2500 to 3000 feet of the tunnel was to be a crosscut to hit the Monitor Vein at an angle of 45 degrees. Once the vein was hit it was proposed that the 5000 foot-long tunnel would drift along the vein. It is not certain if the entire recommended tunnel was fully completed.

Spalding (1913) notes that down the 700 foot deep Monitor Shaft there were five drifts, each driven along the vein. The five drifts down the Monitor Shaft were as follows;

- (1) 100 foot level: a 300 foot drift, of which 50 feet extended east of the shaft and 250 feet west.
- (2) 200 foot level: 115 feet of drift with 75 feet being east and 40 feet being west of the shaft.
- (3) 300 foot level: 110 feet of drift , 60 feet being east and 50 feet west of the shaft.
- (4) 400 foot level: 190 feet of drift with 40 feet being east and 150 feet west of the shaft.

(5) 700 foot level: details of the drift are unknown.

Spalding (1913) noted that "*there are several shoots of ore in the (Monitor) vein raking westerly and dipping slightly to the south.*" The vein width in the four higher drifts varied between 10 and 15 feet but on the 700 foot level at the bottom of the shaft a crosscut indicated that the vein was thicker since its hanging-wall was not intersected. Spalding (1913) states that in the Coeur d'Alene District many veins thicken with depth.

The Richmond Vein lay about 2000 feet north of, and sub-parallel to the Monitor body (Spalding, 1913). Four shafts were dug. One of these was 40 feet deep, two others were 75 feet deep while the forth reached a depth of 175 feet. These exposed the 10 foot thick Richmond Vein which contained abundant Fe and Cu oxides, massive siderite and younger quartz veins and veinlets. Even at the base of the 175 foot deep Richmond Shaft the mineralization was deeply oxidized and gossanous. Spalding (1913) states that two samples taken at a 75 foot-depth in two of the Richmond shafts assayed as follows:

- (1) 10.8% Cu, 0.7 oz/ton Ag and 0.3 oz/ton Au.
- (2) 14.2% Cu, 1.4 oz/ton Ag, and 0.12 oz/ton Au.

It should be noted that nothing is known about the reliability of these historic assays or if they were truly representative of the mineralized veins. Since the data is not NI 43-101 compliant the reader should treat these assay values with extreme caution.

The Richmond Vein trended ENE and was steeply dipping to the north. A northeast directed tunnel was driven from the Richmond portal towards the Richmond shafts. The portal lies at UTM 607579-5243192 (Photo 3) only 460 meters northwest of the Monitor Shaft. There is little reliable data regarding when this tunnel was driven or its true length.

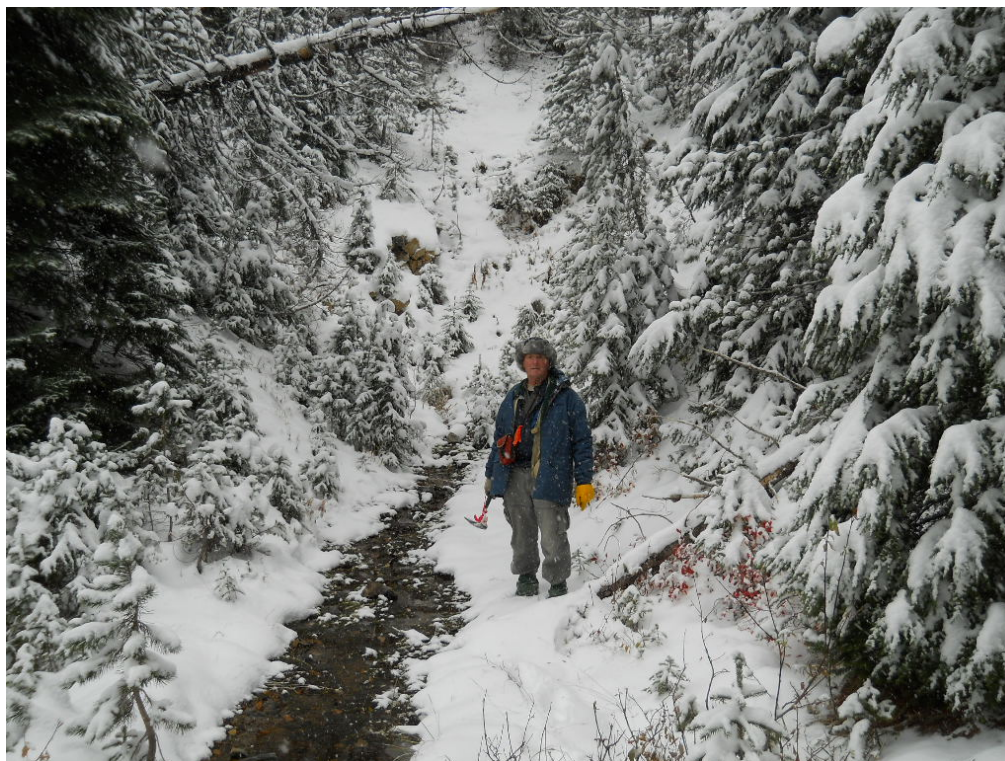


Photo 3: The collapsed Richmond Adit looking north, UTM 607579-5243192.

Spalding (1913) and an anonymous report published in the year 2005 after an environmental investigation of abandoned mine sites in the St. Joe watershed (MCS, 2005) states that shipments of ore from the Monitor Mine began in 1900 with larger quantities being transported to the smelter between 1905 and 1908. Two documents exist that list the ore shipments between 1900 and 1908 (Tables 2 and 3). It should be noted that the metal grades and tonnages quoted in these two documents are not NI 43-101 compliant and thus cannot be relied on. Moreover, it is not known if the collection method of the mineralized vein material shipped to the smelter caused sampling bias (perhaps by hand sorting). Thus, the high metal grades mentioned in the two documents must be treated with great caution.

One of these documents is from an undated Montana-Idaho Copper Company report (Table 2) which states that 50 carloads were shipped to the smelter; these totaled 1481.7 tons and averaged 15% Cu and 0.246 oz/ton Au.

Table 2: List of the 1481.7 tons of ore shipped via 50 cars from the Monitor Mine to the smelter between 1900 and 1908 (from an undated report by the Montana-Idaho Copper Company).

Smelter Returns for Ore Shipped from the Monitor Mine							
Car No.	Weight in Tons	Gold Ounces Per Ton	Copper Per Cent	Copper Price Per Lb.	Cost of Smelting Per Ton	Net Price Per Ton	Net Returns from Car- load
862	28.612	.24	27.7	.11	1.00	66.09	1,855.11
7289	18.150	.23	27.20	.11 1/2	1.00	67.10	1,196.39
7280	21.050	.24	26.85	.11 1/2	1.00	66.80	1,381.96
4958	24.430	30.5	.10 1/4	1.00	62.52	1,503.45
37028	27.133	.24	16.9	.11 3/8	1.00	40.67	1,533.96
4912	23.122	.18	14.7	.11 3/8	1.00	35.07	840.71
34866	37.808	.18	14.53	.11 3/8	1.00	35.10	1,375.08
35622	32.584	.15	14.46	.11 3/8	1.00	33.79	1,153.47
43610	39.112	.18	15.35	.12 1/16	1.00	38.31	1,513.63
44209	41.991	.22	18.79	.12 3/8	1.00	1,893.61
33055	42.792	.42	17.34	.12 1/2	1.00	49.05	2,108.36
11318	31.537	.22	20.40	.12 5/8	1.00	54.04	1,726.99
34898	37.842	.24	17.26	.12 5/8	1.00	45.79	1,732.78
41948	32.852	.64	13.46	.12 1/2	1.00	44.01	1,461.07
43161	45.070	.14	18.41	.12 1/2	1.00	46.21	2,103.42
33210	31.544	.14	14.78	.15 3/4	1.00	57.77	1,822.82
43014	26.984	.29	14.61	.15 13/16	1.00	51.33	1,385.11
4449	4 723	.55	13.38	.16 1/8	1.00	53.42	1,320.70
43631	25.989	.56	13.34	.16 3/4	1.00	55.37	1,439.04
43334	37.315	.13	19.24	.17 3/4	1.00	70.21	2,619.92
11285	28.869	.08	14.86	.10 7/8	1.00	32.04	924.96
42099	44.141	.09	17.56	.09 3/4	1.00	35.00	1,544.93
33340	36.188	.18	18.44	.18 3/8	1.00	70.86	2,564.28
46343	33.806	.20	15.30	.18 5/8	1.00	60.39	2,041.54
33002	30.162	.18	15.47	.18 5/8	1.00	62.52	1,885.73
32517	23.836	.58	12.97	.20 7/8	1.00	64.81	1,544.84
37360	29.601	.34	9.89	.21 11/16	2.00	49.57	1,467.32
45692	21.011	.22	11.51	.21 11/16	1.00	54.29	1,140.69
46330	27.913	.24	10.28	.21 3/4	1.00	49.19	1,373.04
13276	28.092	.35	12.17	.21 3/4	1.00	59.18	1,662.81
6397	18.351	.24	11.66	.21 3/4	1.00	54.78	1,005.29
37823	28.645	.29	9.84	.21 15/16	2.00	47.15	1,350.61
36168	14.298	.38	10.75	.22 1/4	1.00	54.46	778.67
36169	10.267	.76	22.16	.22 1/4	1.00	100.63	1,033.22
32707	22.915	.44	13.10	.22 1/4	1.00	66.10	1,514.68
37071	19.874	.29	9.89	.21 5/8	2.00	46.73	928.71
8047	20.420	.12	10.73	.21 1/4	1.00	47.19	963.62
41682	28.595	.15	10.36	.20 7/8	1.00	45.26	1,294.21
30698	20.244	.35	12.24	.21 5/16	1.00	58.19	1,178.02
41945	20.501	.25	10.30	.21	1.00	47.84	980.77
41208	31.150	.15	10.65	.20	1.00	44.86	1,297.79
77986	38.198	.18	9.46	.13 3/8	2.00	21.67	827.75
47792	31.790	.12	9.38	.12 1/8	2.00	23.31	741.02
47792	36.027	.09	15.14	.11 3/4	1.00	36.42	1,312.10
37018	31.276	.23	15.59	.09 15/16	4.93	30.52	954.54
32653	39.997	.09	13.54	.09 15/16	4.93	23.69	947.52
37591	36.218	.20	15.88	.10 3/8	4.67	32.83	1,189.04
34279	29.021	.24	8.71	.10 3/8	2.44	20.19	585.93
32775	36.542	.30	15.44	.10 9/16	1.80	36.59	1,337.07
26120	34.499	.20	12.23	.10 9/16	4.68	24.96	861.09
Total for 50 cars.....						\$62,308.49	
Does not include three cars shipped by lessees, of which the company does not have the settlement sheets.							
Average copper contents 15% or 300 pounds of copper per ton of ore.							
Average Gold contents .246 oz. at \$20 per oz. or \$4.92 per ton.							

The second document (Table 3) is from Spalding's 1913 report; it lists an additional three carloads of ore making the total shipped as 1561 tons. It should be noted that the list in Spalding's 1913 report contained one typographic error, namely car No. 44209 which should read 0.22 oz/ton Au and not 2.22 oz/ton Au. However, when corrected it shows that the 53 cars of ore totaled 1561 tons and graded 14.92% Cu, 0.24 oz/ton Au and 0.76 oz/ton Ag. However, this historic data is not NI 43-101 compliant and should be regarded with extreme caution by the reader.

Table 3: List of the 1561 tons of ore shipped via 53 ore-cars from the Monitor Mine to the smelter between 1900 and 1908 (from Spalding, 1913).

Note that when Spalding transferred the data from Table 2 he made a typographic error; the gold values for car number 44209 should read 0.22 oz/ton Au and not 2.22 oz/ton Au.

Date	Car No.	Tons Dry Wt.	Au	Ag	Cu	Treat-ment	Freight	Net Returns
8/11/00	4958	23.917	0.08	tr.	30.5	12.00	287.00	\$ 1109.75
10/13/00	4862	27.182	0.08	0.4	29.7	6.50	202.65	1405.16
9/13/01	27890	17.151	0.16	0.2	27.20	6.50	127.05	886.57
9/13/01	7280	19.892	0.37	0.1	26.85	6.50	147.35	1091.72
7/17/05	37028	37.133	0.24	0.64	16.9	1.00	208.60	1301.60
7/27/05	4912	23.122	0.18	1.22	14.7	1.00	129.65	681.24
8/ 2/05	34966	37.808	0.18	1.92	14.53	1.00	217.75	1109.31
8/ 5/05	35622	32.584	0.5	0.87	14.46	1.00	181.95	918.06
8/14/05	43610	39.112	0.18	0.70	15.35	1.00	159.65	1338.73
8/14/05	44209	41.991	2.22	0.66	18.79	1.00		1893.65
8/25/05	33053	42.792	0.42	0.78	17.34	1.00	173.60	1925.35
8/31/05	11318	31.537	0.22	0.68	20.40	1.00	228.20	
8/31/05	34898	37.842	0.24	0.66	17.26	1.00	153.50	3155.34
9/16/05	41948	32.852	0.64	0.92	13.46	1.00	137.60	1308.22
9/25/05	43161	45.070	0.14	0.62	18.41	1.00	183.96	1898.72
Additional returns in final settlement								
9/19/06	33210	31.544	0.14	0.16	14.78	1.00	171.30	
9/19/06	43014	26.984	0.29	0.96	14.61	1.00	168.08	2868.05
9/28/06	4449	24.723	0.55	1.20	13.38	1.00	160.25	1160.55
10/ 9/06	43631	25.989	0.56	1.59	13.34	1.00	170.17	1268.87
10/11/06	43344	37.315	0.13	0.67	19.24	1.00	227.55	2392.37
10/17/06	11285	28.869	0.08	0.47	14.36	1.00	125.52	
10/17/06	42099	44.141	0.09	0.09	17.56	1.00	190.88	2153.49
10/18/06	33340	36.188	0.18	1.02	18.44	1.00	220.65	2343.63
10/27/06	46343	33.806	0.20	0.90	15.30	1.00	209.38	1832.16
10/30/06	33002	30.162	0.18	0.91	15.87	1.00	186.40	1699.33
1/14/07	32517	23.836	0.58	0.97	12.67	1.00	119.48	1425.36
1/31/07	37360	29.601	0.34	3.41	9.89	2.00	150.64	
1/31/07	45692	21.011	0.22	1.83	11.51	1.00	103.76	2353.61
2/16/07	46330	27.913	0.24	1.41	10.28	1.00	132.92	1240.12
2/26/07	13226	28.097	0.35	0.90	12.17	1.00	133.48	
2/26/07	6397	18.351	0.24	0.76	11.66	1.00	86.36	2448.26
9/ 9/07	37823	28.645	0.29	0.71	9.84	2.00	136.08	1214.53
3/16/07	36166	14.298	0.38	0.62	10.75	1.00		
3/16/07	?	10.267	0.08	0.76	22.16	1.00	110.60	1701.29
3/21/07	32707	22.915	0.44	0.68	13.10	1.00	104.16	1410.52
4/ 2/07	37071	19.874	0.29	0.71	9.89	2.00	94.64	834.07
4/11/07	8047	20.420	0.12	0.50	10.73	1.00	89.76	873.86
4/18/07	41682	28.595	0.15	0.25	10.36	1.00	135.20	1159.01
5/ 9/07	30698	20.244	0.35	0.60	12.24	1.00	94.60	1083.43
5/23/07	41945	20.501	0.25	1.32	10.30	1.00	93.40	887.37
6/13/07	41208	31.150	0.15	0.65	10.65	1.00	142.40	1254.99
9/17/07	77986	38.198	0.18	0.46	7.46	2.00	167.72	660.03
9/25/07	47792	31.790	0.12	0.44	9.38	2.00	143.36	
9/25/07?	?	36.027	0.09	0.20	15.14	1.00	156.64	1753.12
12/31/07	37018	31.276	0.235	0.30	15.59	4.93	136.28	
12/31/07	32653	39.997	0.09	0.21	13.54	4.93	174.48	1594.31
1/ 8/08	37591	36.218	0.21	1.50	15.88	4.67	158.68	
1/ 8/08	34279	29.021	0.24	0.22	8.71	2.44	128.84	1487.45
1/18/08	32275	36.542	0.30	0.46	15.24	1.30	151.00	1186.07
1/28/08	35327	31.808	0.10	0.50	11.04	3.53	140.28	558.54
2/10/08	26120	34.499	0.20	0.55	12.23	4.68	155.40	765.68
3/13/08	4065	16.224	0.16	0.48	7.82	5.00	80.00	121.34
4/29/08	34570	25.659	0.075	0.73	17.16	2.00	109.35	659.14
Freight and treatment							\$10633.96	\$73211.62
Less Freight and Treatment								10633.96
Net Smelter Returns								\$62577.66

The "Great Fire" in 1910 burnt a 12,000 square km area in Montana and northern Idaho. It destroyed several towns (including one third of Wallace), killed 87 people and burnt railway lines and mine buildings, including the entire ground infrastructure on the Monitor property. After some post-fire rebuilding, the mine closed in 1925 when it had a reported total underground development of 12,900 feet (MCS, 2005). It is not known what production, if any, took place between 1909 and 1925. In the 1940s Day Mines Ltd. (Day), bought the property in a tax sale

but the mine remained dormant and little or no work was done, although MCS (2005) state that some "ore" was produced in 1941. Sporadic minor production may have taken place until 1960. In the 1980s, Hecla Mining Company (Hecla) took over from Day and used the claims as leverage in a land exchange for properties surrounding the Lucky Friday Mine which lies close to the town of Mullen, approximately 12 miles north-west of the Monitor claim block (Figure 8). During the time it was held by Day and Hecla no significant exploration work was recorded on the Monitor property. In the 1970s a district-wide litho-geochemical survey was made of the area which was mainly concentrated around the mining centers lying west and north of the Monitor property (Gott and Cathrall, 1979). This work led to the production of several metal ratio maps, including map I-1093-I, published at a scale of 1:62,500.

7.0 GEOLOGICAL SETTING & MINERALIZATION

7.1 District Geology

7.1a Sedimentary Rocks

The geology of the Coeur d'Alene Mining District is dominated by mid-Proterozoic (1.4 to 1.5 Ga) basin-fill sedimentary rocks of the Belt Super-group (Winstone, 2000). Rifting and subsidence at that time along the North American continental margin resulted in the deposition a stratigraphic package that exceeded 7 km in thickness. Most of the sediment filled the basin from a westerly or southwesterly source and, over time, the environment of the deposition changed from deep to shallow water to lagoonal.

The generalized stratigraphy of the super-group and the thicknesses of the various formations are shown in Figures 3 and 4. From top to exposed bottom the various six formations are as follows:

- Stripped Peak
- Wallace (which is the host-rocks for the Monitor and Richmond veins)
- St. Regis
- Revett
- Burke
- Prichard.

The *Prichard Formation* is a sequence of bedded, commonly pyritic argillites and fine grained quartzites (Ransome and Calkins, 1908). They are interpreted to be deep water turbidites that were deposited in an environment similar to that present at the inland Black Sea basin (Lyon and Berner, 1989).

The *Burke Formation* of the Ravalli Group (Ransome and Calkins, 1908) is marked by tabular, fine grained muddy quartzites and siltstones with bedding varying from centimeters to decimeters in thickness. Its character suggests the rapid accumulation of fine sediments from episodic flow across wet alluvial surfaces (Winstone, 2000). The top of the Burke is placed where these silty beds are overlain by substantial thicknesses of tabular, clean quartzite which marks the lowermost portion of the Revett Formation.

The *Revett Formation* is subdivided into three informal members (Winstone, 2000; Figure 4). It is marked by well sorted cross-bedded feldspathic quartzites that are inter-layered with lesser amounts of ripple marked silty units and argillite.

The *St. Regis Formation* is the thinnest unit in the Belt Super-group package with a maximum thickness of 200 meters. It is characterized by mud-cracked silty to clay units that marked sheet-flood deposition across sand-flats at the toes of alluvial aprons (Winstone, 2000).

The *Wallace Formation* is a 1000 meter thick succession that hosts the Monitor and Richmond veins. It is marked by siliciclastic, thin-bedded sediments and dolomitic units. In the Coeur d'Alene district White and Applegate (1999 and unpublished work) identified three units in the lower part of the Wallace Formation. In the vicinity of Placer Creek and the Galena Mine (Figure 8), the lower unit contains thin, green siliciclastic and dolomitic rocks that were deposited in very shallow water. The middle Wallace sediments contains silty horizons and dolomites that are interpreted to record somewhat deeper water conditions. The upper unit of the lower Wallace in the vicinity of the Galena Mine suggests a return to a more shallow water environment.

The middle Wallace is marked by an abrupt change from thin bedded to thicker sedimentary cycles, and the sediments are sandier. The evidence of increasing wave turbulence reflects somewhat deeper water but whether the sea was still a large closed lake or connected to the ocean is uncertain (Winstone, 2000). One marked feature of the Wallace Formation rocks is the presence of quartz-rich breccia horizons, some of which are many kilometers in strike length. These are marked by soft sediment deformation and chaotic slump features. They are interpreted to have formed by sub-aqueous slumping of water-saturated sediments down the basin margins to produce gravity slide deposits (Godlewski, 2011).

The 500 meter thick *Striped Peak Formation* lies at the top of the super-group (Figure 3). It comprises quartzites that mark a vast alluvial apron, similar to many of the Revett rocks. This formation appears to host no mineralization in the district.

Formation	Thickness, m	
Striped Peak	500	
Wallace	1,000	} Hostocks of the Monitor & Richmond Veins
St. Regis	200	
Revett	1,000	
Burke	1,000	
Prichard (exposed in district)	4,000	

Figure 3: Generalized Belt Super-group stratigraphy in the Coeur d'Alene Mining District with average thicknesses to scale. From White et al. (2000)

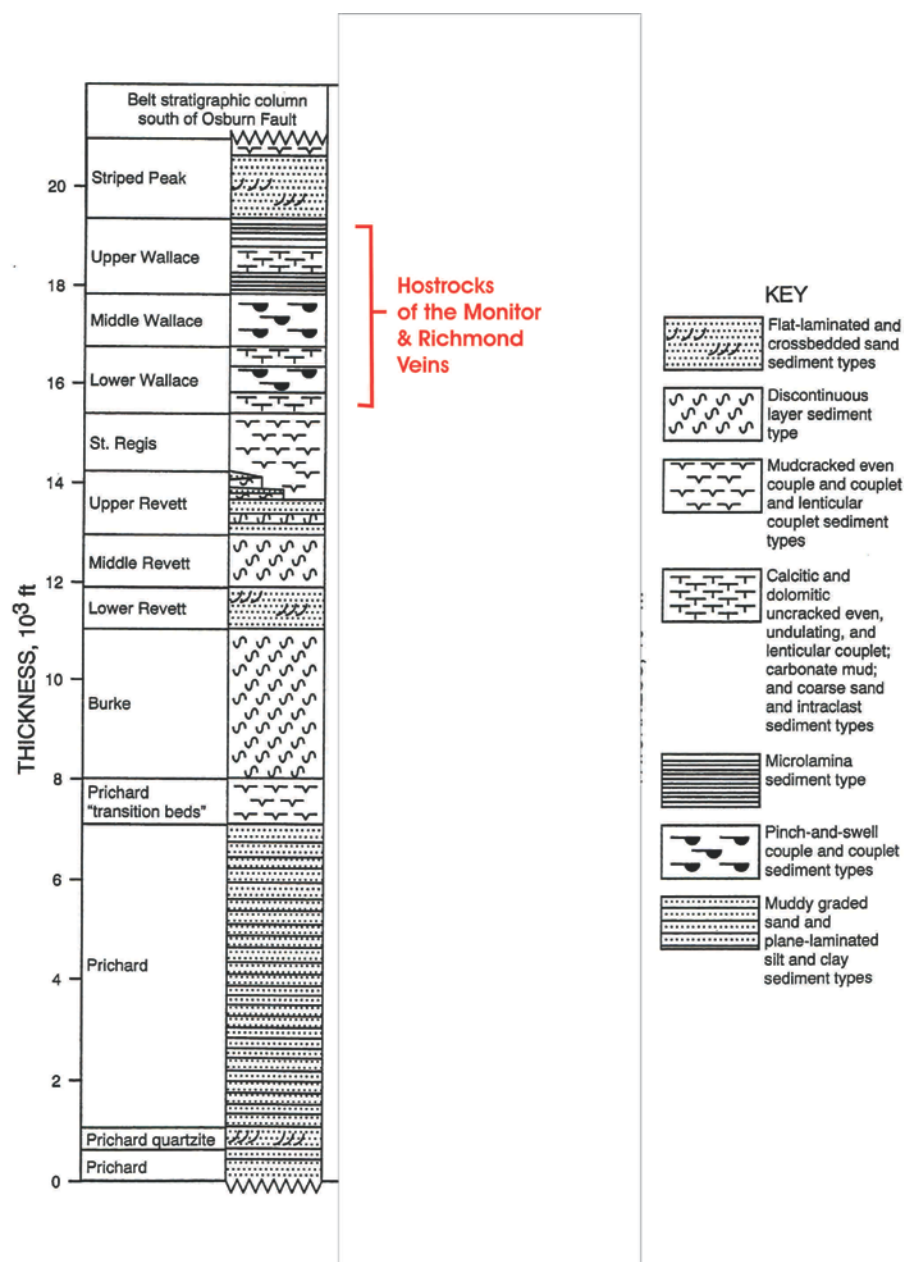


Figure 4: Belt Super-group stratigraphy and its sedimentary rock-types seen south of the Osburn Fault (from Winston, 2000).

7.1b Intrusive Rocks

Igneous rocks in the district are limited to various mafic sills and dikes. Some thin minor intrusions are believed to be of Cretaceous-Tertiary age but the more extensive sills are thought to be pre-Cambrian and may be more or less coeval with some of the younger Belt Super-group sedimentation; many of the latter are probably equivalent in age and origin to the Moyie Sills seen in the vicinity of the Sullivan Pb-Zn-Ag deposit in British Columbia (Anderson and Davies, 1995). The most impressive body of this type in the immediate Monitor Mine area is the

Wishard Sill which is of quartz diorite-gabbro composition (locally called "diabase"). This body ranges from 125 to 300 meters in thickness and is traceable along strike for 45 km (Kleinkopf et al., 1972). It has a curious large-scale sigmoidal outcrop pattern that may indicate some right-lateral strike-slip movement. The Wishard Sill is associated with some thermal metamorphism; outcrops of this body were seen at UTM 602812-5248548, approximately 6.4 km northwest of the Monitor Shaft. Thin section studies by Ransome and Calkins (1908) showed that the Wishard Sill contains abundant lathes of labradorite-plagioclase and augite with some quartz. Other minerals present include minor ilmenite, apatite, biotite, sericite, zoisite, scapolite, leucoxene and chlorite.

Other thinner sills of the Wishard-type are present in the district and some are reported on the Monitor property. There has been considerable historic debate about whether the Wishard-type sills are spatially related to some of the mineralized veins. However, current theories, supported by isotope data, suggest that the veins originated from Proterozoic-age mineralization developed in the Precambrian sediments and were then remobilized during a later Cretaceous magmatic-deformation event (Fleck et al., 2002). Thus, it is possible that some veins were controlled by fissure structures that also controlled some of the older sills.

7.1c District Structural Geology

The Coeur d'Alene Mining District lies at the junction of the ESE trending Lewis and Clark Line and the northerly striking Noxon arch (Figure 5; Harrison et al., 1974; White, 2000). Its rocks have undergone strong folding and faulting. The Lewis and Clark Line is a 50 km wide, ESE trending zone of abundant normal, reverse and trans-current faulting. The largest brittle structure, the Osburn Fault (Figures 6 and 8), transects the district and forms part of the Lewis and Clark Line. It has undergone 20 to 30 km of post-ore right-lateral transcurrent movement (Mauk and White, 2004).

The structural history of the district is complex. At least five episodes of post-sediment deformation have been identified (Wavra et al., 1994) and many geologists suggest some syn-depositional faulting occurred along the Lewis and Clark Line. In the Monitor Mine area the regional deformation of the Wallace sedimentary rocks was accompanied by greenschist facies metamorphism. Deformation along Lewis and Clark Line resulted in a complex pattern of sub-parallel easterly to ESE trending brittle structures that include the Thompson Pass, Osburn, Placer Creek, Slate Creek and Mastadon Mountain faults (Figures 6 and 8). Splay sets from these major faults commonly trend SSW to southerly. Many of the major ESE striking faults, as well as some lesser splays are economically important as they appear to control the mineralization. Wavra et al (1994) concluded that the deformation associated with mineralization at the Sunshine Mine (Figure 8) was normal dip-slip movement along the Osburn Fault. This orogenic event may have been related to the intrusion of the Idaho Batholith (Figure 5) and/or the docking of the Wallowa Terrane.

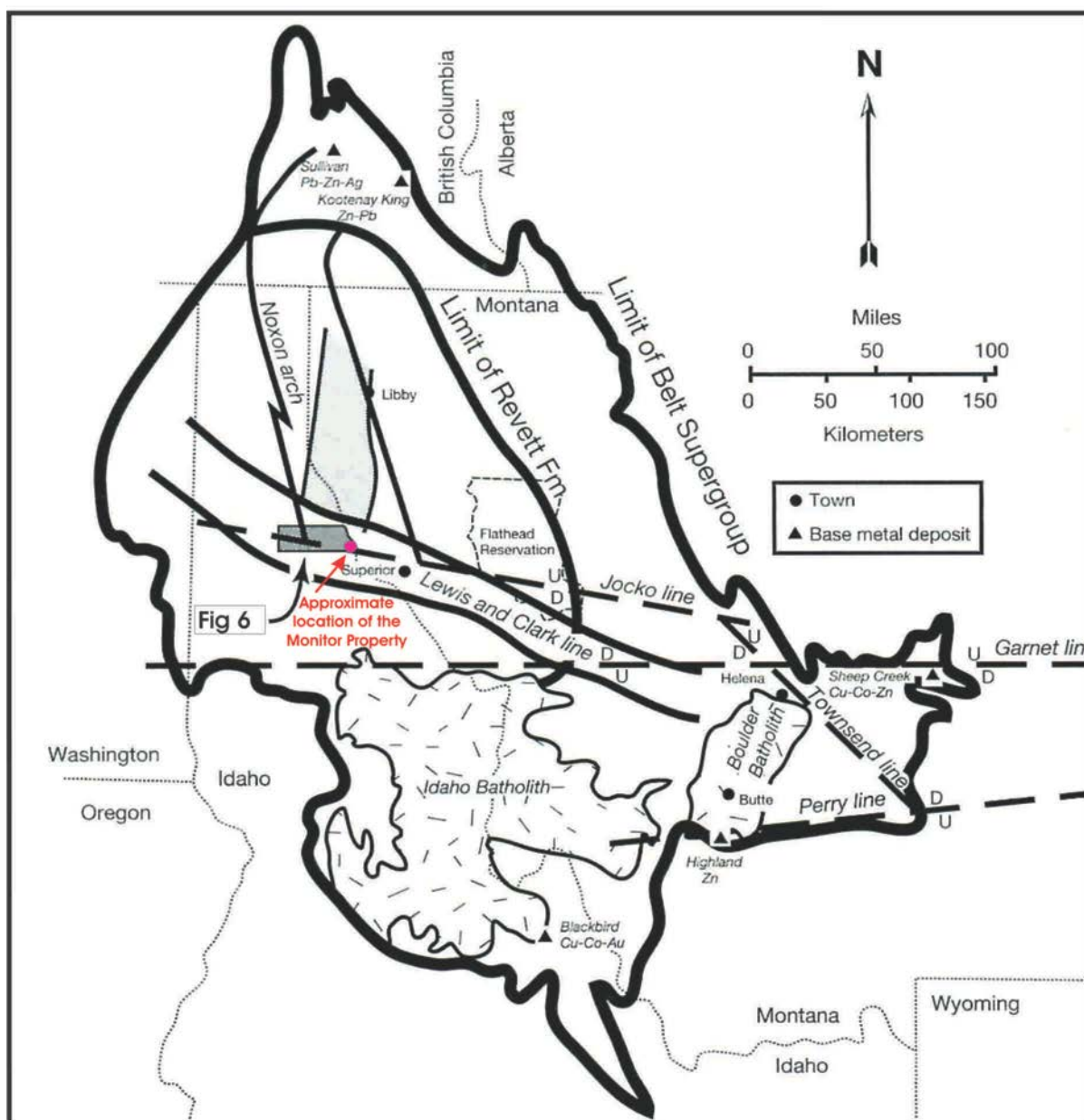


Figure 5: Distribution of the Belt Super-Group and the locations of the Lewis and Clark Line and the Noxon Arch.

7.1d District Mineralization

The Belt Super-group is famed in hosting some of the world's major metal deposits or mining camps; these include the syngenetic Sullivan Pb-Zn-Ag deposit in British Columbia (Anderson and Davies, 1995; Figure 5), the Revett-type, strata-bound Cu-Ag deposits in the Ravalli Group and the probably younger Ag-Pb-Zn-Cu-Au veins that comprise the Coeur d'Alene Mining District (White, 2000; Mauk and White, 2004). The Coeur d'Alene district is the second largest producer of silver in the world (Mauk and White, 2004), following Potosi in Bolivia. It reportedly

produced over 34,000 metric tonnes of silver, 7.2 million metric tonnes (Mt) of lead and 2.8 Mt of zinc (Long, 1998); however, the reader is warned that this historic production data is not NI 43-101 compliant and thus it cannot be relied on.

The Coeur d'Alene district has a well defined district-scale zonation of the chemistry and metals in its veins. With some exceptions, the veins in the western part of the district tend to be richer in Pb-Zn, those in the central parts are richer in Ag, while those to the east and SE are enhanced in Cu with byproduct Au and Ag; the veins on the Monitor property belong to the latter group. All the significant ore deposits in the district lie within twelve well-defined, sub-parallel mineral belts, some of which are base metal rich while others contain more silver. The latter are found within the 8 km long "Silver Belt" which is located south of the Osburn Fault (Figure 6). This contains numerous Ag-rich mines including the Crescent, Sunshine, Consolidated Silver, Coeur and Galena (Figures 6 and 8). The Silver Belt is flanked to the west by the Bunker Hill Mine in which Pb-Zn was predominant, while to the east the veins are Cu-base metal rich; the recent increase in base metal prices has resulted in the veins further east being now explored for their Cu-Au potential.

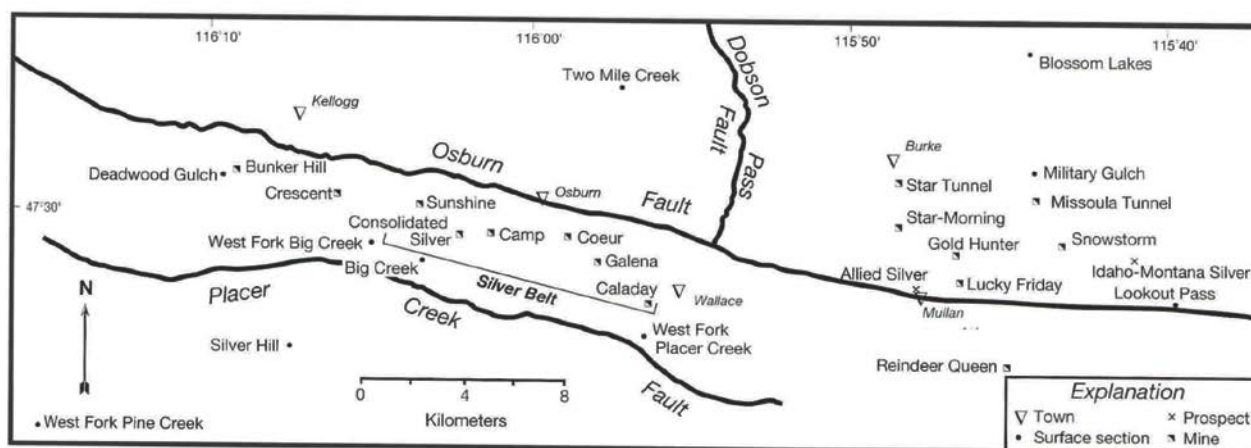


Figure 6: The major mines in the Coeur d'Alene Mining District, showing the location of the "Silver Belt" and some major faults (from Mauk and White, 2004).

7.2 Property Geology

Very little is known about the detailed geology of the Monitor property. A 1:250,000 scale geological and geophysical investigation map of the region (Kleinkopf et al., 1972) shows the property is largely underlain by low metamorphic grade Wallace Group metasediments that includes non-bedded and bedded quartzites, impure carbonates, dolomites and minor argillites and siltstones. These are intruded by some thin mafic dikes that are thought to mostly belong to the Proterozoic Wishard Sill suite. The sedimentary bedding and sills strike mostly east-west to ESE and are steep dipping.

On route to the Monitor property I examined outcrops of the main Wishard Sill located at UTM 602812-5248548 at an elevation of 1562 meters asl. Here it forms a dark colored equigranular medium to coarse grained mafic rock that is visually estimated to contain 30 to 40 percent fine-grained mafic minerals (probably mostly pyroxene with lesser hornblende). It is weakly magnetic and contains trace pyrite with possible trace pyrrhotite.

During the collection of fifteen rock assay samples from waste dumps at the Richmond Shafts, the Richmond portal and the Monitor Shaft areas I saw well bedded, brownish-grey and fine-grained quartzites with some bleached and hydrothermally altered impure carbonates and limey sandstones. These rock types were coated or impregnated with jarosite, hematite and various secondary copper oxides which were associated with tan colored siderite and white quartz veining. A few examples contained veins and blebs of massive pyrite and chalcopyrite with chalcocite and trace bornite.

7.3 Property Mineralization

Like all parts of the Coeur d'Alene district, the mineralization on the property occurs in sub-vertical sulfide-rich veins that reportedly range between 10 and 15 feet in total thickness. However, unlike the Ag-Pb-Zn-rich veins currently and historically mined further west in the district, the Monitor veins are enhanced primarily in copper with by-product gold and silver. Historic data suggests the veins were geochemically enriched in both Ni and Co but no nickel or cobalt-bearing minerals have been identified.

To-date two veins are known to exist on the property - the Monitor and the Richmond. However, many of the vein systems elsewhere in the district occur as en-echelon or sub-parallel sets; thus, it is likely that more undiscovered veins exist on the claims. The Monitor Vein reportedly strikes ESE, parallel to the main trend of all the major brittle structures, including the Osburn Fault to the north and the Slate Creek Fault further south (Figures 6 and 8). Historic documents report that the Richmond Vein had a south-west to WSW strike; if true this means that the two vein systems may intersect.



Photo 4: Mineralized sample MON-08 taken from the Monitor Shaft waste dump (UTM 607916-5244876; elevation 1796 meters asl).

The pyrite-chalcopyrite-chalcocite mineralization is associated with Cu-oxides and abundant Fe-oxide-stained siderite and quartz veins. This sample assayed 5.48 % Cu, 15.45 ppm Au and 4.25 g/t Ag (Table 5).

Mineralization, as reported from the historic small-scale mining and from the samples I collected on the waste dumps, includes variable amounts of pyrite and chalcopyrite occurring as fine-grained disseminations, veinlets and coarse masses. Also present are chalcocite and trace bornite. Some rocks are gossanous and coated or impregnated with abundant amounts of secondary Cu minerals, including malachite, azurite and chrysocolla. The gangue comprises abundant massive Fe-oxide-stained siderite with lesser amounts of pale grey quartz that occurs as masses, veins and veinlets. In addition minor ankerite was seen. The quartz appears to cut and postdate the siderite and, in some samples, the quartz veins and veinlets have been brecciated, suggesting recurrent post-mineral faulting along the vein structure (Photo 4).

During my due diligence visit to the property I collected fifteen (15) rock grab samples (MON-01 to MON-15) from the waste dumps: these were submitted to the certified ALS Chemex Laboratory in Reno, NV. The samples descriptions and assay results are shown below in Tables 4 and 5.

Table 4: Description and location of fifteen waste-dump rock grab samples collected by the author from the Monitor property.

Sample No.	SAMPLE DESCRIPTION
<i>Waste dump near the Richmond Shafts (UTM 607973-5245506)</i>	
MON-01	Fine grained quartz-carbonate quartzite with abundant Cu & Fe oxides
MON-02	Quartz-rich siltstones with coated with minor Cu oxides
<i>Waste dump near the Monitor Shaft (UTM 607916-5244876)</i>	
MON-03	Bedded quartzite with minor coatings of Cu & Fe oxides. Some siderite.
MON-04	Bedded quartzite with minor carbonate & abundant Cu-Fe oxides with siderite.
MON-05	Massive quartzite abundant with Cu-Fe oxides
MON-06	Bedded argillite with minor Cu-Fe oxides with pyrite & chalcopyrite
MON-07	Quartz-rich dolomite with siderite, Cu-Fe oxides, malachite & trace chalcopyrite.
MON-08	Bedded qtz-carbonate metaseds with Cu oxides, siderite, quartz veining & trace chalc
MON-09	Composite sample of fine grained rusty & Cu oxide stained quartz-rich material on dump
<i>Waste dump near the Richmond portal (UTM 607579-5243192)</i>	
MON-10	Bedded carbonate-bearing quartzites with Cu-Fe oxides, minor pyrite-chalco & siderite.
MON-11	Massive quartzite with Cu-Fe oxides & minor quartz veining
MON-12	Bedded quartzites with Cu-Fe oxides.
MON-13	Bedded carbonate-bearing quartzites with Cu-Fe oxides & siderite.
MON-14	Quartzite with abundant secondary Cu-Fe minerals (including wad) & siderite
<i>Waste dump near the Monitor Shaft (UTM 607916-5244876)</i>	
MON-15	Quartzite with minor pyrite-chalcopyrite, abundant Cu-Fe oxides & abundant grey qtz veins

Table 5: Assay results for fifteen waste-dump rock grab samples collected by the author from the Monitor property. Anomalous values in bold red.

Method	Au- ICP22 Au	Au- GRA22 Au	ME- MS41 Ag	ME- MS41 Cu	Cu- OG46 Cu	ME- MS41 As	ME- MS41 Bi	ME- MS41 Ce
Sample No.	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
<i>Waste dump near the Richmond Shafts</i>								
MON-1	0.643	-	3.37	>10000	3.63	462	1.24	177
MON-2	0.015	-	0.15	1975	-	278	0.11	>500
<i>Waste dump near the Monitor Shaft</i>								
MON-3	0.002	-	0.02	609	-	14.8	0.03	14
MON-4	0.104	-	0.37	>10000	2.9	403	0.42	>500
MON-5	0.113	-	0.84	>10000	8.6	511	0.26	115.5
MON-6	0.215	-	1.29	>10000	13.55	489	0.21	>500
MON-7	0.571	-	1.79	>10000	7.3	623	0.75	>500
MON-8	>10.0	15.45	4.25	>10000	5.48	16	0.52	117.5
MON-9	3.83	-	2.05	>10000	1.98	375	0.72	157.5

"The Geology & Mineralization at the Cu-Au-Ag Monitor Mine Property, Eastern Coeur d'Alene Mining District, Idaho."
by G.E. Ray. NI 43-101 Technical Report for Archean Star Resources Inc., February 10th 2013.

Method	Au- ICP22 <i>Au</i>	Au- GRA22 <i>Au</i>	ME- MS41 <i>Ag</i>	ME- MS41 <i>Cu</i>	Cu- OG46 <i>Cu</i>	ME- MS41 <i>As</i>	ME- MS41 <i>Bi</i>	ME- MS41 <i>Ce</i>
Sample No.	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
Waste dump near the Richmond Portal								
MON-10	0.104	-	3.11	>10000	7.14	111.5	0.17	292
MON-11	0.021	-	3.62	>10000	3.77	168	0.22	165
MON-12	0.011	-	3.45	>10000	2.71	123	0.27	42.4
MON-13	0.011	-	1.89	>10000	2.46	262	0.24	21.4
MON-14	0.032	-	0.29	>10000	5.8	29.1	1.62	34.3
Waste dump near the Monitor Shaft								
MON-15	9.67	-	57.7	>10000	1.76	45.7	0.21	>500

Method	ME- MS41 <i>Co</i>	ME- MS41 <i>Hg</i>	ME- MS41 <i>La</i>	ME- MS41 <i>Mo</i>	ME- MS41 <i>Pb</i>	ME- MS41 <i>Sb</i>	ME- MS41 <i>Sn</i>	ME- MS41 <i>W</i>	ME- MS41 <i>Zn</i>
Sample No.	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Waste dump near the Richmond Shafts									
MON-1	15.4	0.82	90.1	0.96	6.5	4.24	43.7	0.12	16
MON-2	3.4	0.1	350	0.38	6.7	4.12	1.6	0.14	8
Waste dump near the Monitor Shaft									
MON-3	1.5	0.02	7.6	0.18	1.5	0.32	0.4	0.07	11
MON-4	7.7	0.16	240	1.06	2.6	1.01	3.9	0.11	43
MON-5	7.6	0.15	50.2	1.2	3.6	1.39	4	0.08	55
MON-6	8.8	0.42	1040	0.26	5.4	2.53	6	0.14	79
MON-7	9.4	0.96	330	1.27	3.3	5.06	18.3	0.33	88
MON-8	6.5	1.95	60	0.4	3.9	1.86	28.5	0.07	132
MON-9	10.3	1.23	78.3	0.67	4.2	3.49	18.5	0.09	62
Waste dump near the Richmond Portal									
MON-10	9.7	0.17	140	1.07	2.3	2.56	7.7	0.19	66
MON-11	10.8	0.19	75.4	0.72	2.7	1.67	12.1	0.12	67
MON-12	14.1	0.05	28.5	0.53	2.3	0.33	0.3	0.07	35
MON-13	26.7	0.03	14.1	0.91	3.3	0.36	0.2	0.07	17
MON-14	12.5	0.01	38.4	1.71	35.4	0.84	0.4	0.18	31
Waste dump near the Monitor Shaft									
MON-15	7.6	10.25	310	0.83	3.7	6.44	11.6	0.13	35

Regarding these assay results it should be noted that there was sample bias because only rocks with visible secondary Cu minerals or Cu sulfides were selected. However, although the assay results (Table 5) are not reliable for determining average metal grades, they do show that the veins on the Monitor property contain impressive quantities of Cu and Au which gives encouragement for further exploration.

Other points noted from the assay results are:

1. Values in Pb and Zn are very low. This probably accounts for the relatively low Ag values, with the exception of sample MON-15 which assayed high in both Au and Ag (9.67 ppm Au and 57.7 ppm Ag).
2. Arsenic showed moderately anomalous values with a maximum of 623 ppm.
3. Bismuth and Sb values were low.
4. Anomalous Hg values (up to 10.25 ppm) showed some positive correlation with higher Au.
5. There is no enhancement in W, Sn or Mo.
6. Contrary to historic reports there is no enrichment in Ni or Co in these samples.
7. There is an apparent sporadic enrichment in Ce and La; the significance of this is unknown.

The assay results suggest there is no clear correlation between Cu and Au. It is perhaps significant that many of the samples with the highest Au values also contain significant amounts of quartz veining. The possibility that some of the richer gold is hosted in the late quartz veins should be tested by selective sampling during the up-coming underground exploration.



Photo 5: Cu-oxide stained siderite-altered rocks on the Richmond Adit waste dump, UTM607579-5243192

This sample (MON-10) assayed 7.1% Cu (Table 5).



Photo 6: Sampling the snow-covered Monitor Shaft waste dump at UTM 607916-5244876; elevation 1796 meters asl.



Photo 7: The collapsed Monitor Shaft, UTM 607916-5244876.

8.0 DEPOSIT TYPE

The initial focus of ASR's exploration program will be to open up the old underground tunnels, complete some geological mapping, soil geochemical and geophysical surveys and then drill favorable targets. The main aim of the program is to find Cu-Au-Ag veins of sufficient grade and tonnage to support an underground mining operation that may also include some heap leach techniques.

The mesothermal, sulfide-rich veins of the Coeur d'Alene Mining District are commonly steep dipping and less than 15 feet thick; many veins have undergone post-ore brittle deformation. The ore zones often occur as sub-vertical slabs that are highly suitable for underground stope-mining. The veins are famous for their comparative long strike (> 0.5 km) and great vertical depth (>1 km). For example, at the Gold Hunter Mine the mineralization extends down to a depth of 7900 feet (2400 meters), while the Lucky Friday Mine shaft extends to a depth of 6000 feet (1828 meters). In some mines the metal grades increase at deeper elevations. In the western and central parts of the district veins may typically contain 350 to 850 g/t Ag with multi-percent Pb and Zn (Mauk and White, 2004). Galena and sphalerite are the commonest base metal minerals while the Ag-rich deposits contain argentiferous tetrahedrite with lesser galena, sphalerite, chalcopryrite and boulangerite. Siderite and quartz are the main gangue minerals. Most individual silver-rich ore bodies do not show a metal zoning. However some veins, such as the one worked at the Star and Morning mines, change their chemistry along strike with the Star portion being Ag-rich and the Morning part having more Pb with the Ag (Bennett et al., 1989). Veins in the eastern and south-eastern parts of the district (such as those on the Monitor claims) tend to be more copper rich with less Ag, Pb and Zn. This suggests they formed at higher temperatures or were closer to the hydrothermal source than those to the west. These copper rich veins also seldom exceed 15 feet in width but have been known to extend to very great depths. They contain variable amounts of pyrite and chalcopryrite with trace bornite and gold and silver. At depth some veins show increasing amounts of pyrrhotite.

Major producers in the Coeur d'Alene district (Ransome and Calkins, 1908; Bennett and Venkatakrishnan, 1982; Bennett, 1984; 2006) include:

- The Coeur Mine which produced approximately 2.5 million Moz of silver a year during its lifetime. This lies about 20 miles north-west of the Monitor Mine (Figure 8).
- Lucky Friday Mine which up to 2002 produced 125 Moz of silver. This lies approximately twelve miles north-west of the Monitor claims (Figure 8).
- Sunshine Mine which over its life produced 367 Moz of silver. This lies about 25 miles north-west of the Monitor property (Figure 8).

It should be noted that the Sunshine Mine was probably the largest silver producer from any single silver mine in the world. By comparison, the fabled Comstock Lode in Nevada produced about 200 Moz of silver although this was done from many mines in that camp. However, the reader is warned that the production data listed above is not NI 43-101 compliant and thus it cannot be verified.

Three main types of hydrothermal alteration are associated with, or envelope the veins (Mauk and White, 2004). These are: (i) hydrothermal bleaching, (ii) carbonate zoning and (iii) sulfide alteration. The hydrothermal bleaching, which is due to the lack of pigments hematite, is controlled by faults, shear zones, cleavages and ruptured flanks of folds. It commonly lies adjacent to the most economic sulfide-rich part of the veins and may envelope clusters of sulfide-rich material. There can be an alteration zoning around some veins. Most productive veins are immediately enveloped by zones of disseminated siderite that may extend hundreds of meters out into the wall rocks. The siderite zones may then pass out to a carbonate zone that also may be hundreds of meters wide; the latter zone contains abundant ankerite with lesser calcite. Some veins are haloed by zones containing low grade disseminated galena, sphalerite, tetrahedrite, arsenopyrite and pyrite.

The source and age of the Coeur d'Alene veins has been much disputed. Many now believe they were emplaced during a Cretaceous or Tertiary event, but that they represent remobilized Pre-Cambrian sulfides that were originally laid down in Proterozoic times. Thus, they could have been derived from Sullivan and/or Revett-type deposits buried at depth (White, 2000; Fleck et al., 2002).

9.0 EXPLORATION

9.1 Introduction

Because ASR has only very recently acquired the Monitor property they have not yet begun any systematic surface exploration. They have however, recently started to investigate reopening and re-timbering the Monitor portal. Once this is done, and subject to permitting, the tunnel will then be assessed for safety. There are plans to do similar work at the Richmond portal and tunnel. In addition to accessing, mapping and bulk sampling these underground workings during 2013, ASR plans to conduct a surface exploration program. This will include geological mapping, soil sampling, prospecting and possibly contracting an airborne geophysical VTEM and magnetic survey. After all required permits are granted and geochemical and/or geophysical targets are selected, then diamond drilling can take place.

9.2 Geological Mapping & Prospecting

To date ASR has not done any geological mapping or prospecting on the Monitor property. During my recent NI 43-101 visit to the area I collected fifteen (15) mineralized grab rock samples from the waste dumps that lie close to the Richmond and Monitor shafts and the Richmond adit (Table 4). These were submitted for multi-element assay and the results are seen in Table 5).

9.3 Sampling Method and Approach

In October 2012, as part of the author's NI 43-101 due-diligence visits, fifteen (15) grab rock samples were collected (Table 4). These represented samples with variable amounts of Cu-oxide and lesser sulfides. They were collected from the waste dumps close to the Richmond and Monitor shafts and the Richmond adit. Thus, there is sample bias, although they prove the existence of Cu, Ag and Au mineralization on the property. Assay results indicate values up to 13.55% Cu, 15.45 g/t Au, and 57.7 g/t Ag (Table 5).

All samples were placed in clean plastic sample bags and held by the author in safe storage until they were dispatched via United Parcel Services (UPS) to the ALS Chemex Laboratories at 4977 Energy Way, Reno, NV 89502-4105 (Tel 775 356 5395).

10.0 DRILLING

There is no evidence that any drilling has ever been done on the Monitor Cu-Au-Ag property.

11.0 SAMPLING PREPARATION, ANALYSES AND SECURITY

The fifteen (15) litho-geochemical rock samples (MON-01 to MON-15; Tables 4 and 5) collected by the author were securely delivered via UPS shipment to the ALS Chemex Laboratories at 4977 Energy Way, Reno, NV 89502-4105 (Tel 775 356 5395). ALS Laboratory Group's Mineral Division, ALS Chemex, has developed and implemented a Quality Management System (QMS) designed to ensure the production of consistently reliable data. The system covers all laboratory activities and takes into consideration the requirements of ISO standards. The QMS operates under global and regional Quality Control (QC) teams responsible for the execution

and monitoring of ALS Chemex's various Quality Assurance (QA) and Quality Control programs in each department, on a regular basis. Audited both internally and by outside parties, these programs include proficiency testing of a variety of parameters, ensuring that all key methods have standard operating procedures (SOPs) that are in place and being followed properly, and ensuring that quality control standards are producing consistent results. Most of ALS Chemex laboratories worldwide are registered or are pending registration to ISO 9001:2000, and a number of analytical facilities have received ISO 17025 accreditations for specific laboratory procedures.

ASR is independent from, and has no financial interest or holdings with the ALS Laboratory Group. ASR's relationship with ALS is that of an independent paying customer requiring reliable and meticulous assay work.

The submitted samples were crushed in a jaw crusher and then crushed further in a hammer mill. They were then split to obtain a 100 g "sub-fraction" which was then pulverized in a ring pulverizer. A 50 g sample weight was digested with aqua regia and gold was determined by atomic absorption and ICP (Au-ICP 22) and gravimetric (Au-GRA 22) for over-limits, while other elements were determined via ME-MS 41 and ME-ICP 41a coded methods.

12.0 DATA VERIFICATION

The fifteen (15) grab rock samples collected by the author (Tables 4 and 5) represented Cu-bearing rock grab samples taken from waste dumps at the Monitor and Richmond shafts and at the Richmond adit. The reader is cautioned that grab samples are selective by nature; thus they do not necessarily represent the true average grade of the mineralization. Consequently, there was sample bias, although the main aim of the sampling was to verify the presence of Cu and test whether the mineralization was associated with Au, Ag, Ni and Co, as reported in the historic mine documents. No quality control procedures, such as submitting blanks and gold standard samples, were performed for the fifteen (15) rock samples. However, ALS Chemex laboratory did perform check repeat assays and completed some assays on their own standard and blank samples.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

The Monitor property is a grassroots-stage exploration project with no known mineral or metal reserves or resources. Although small-scale underground mining occurred on the property up to the 1920s, nothing is known about the historic mineral processing or metallurgical testing done at that time.

14.0 MINERAL RESOURCE ESTIMATES

There is no current National Instrument 43-101 compliant resource or reserve estimate for any of the mineralized areas on the Monitor Property.

15.0 MINERAL RESERVE ESTIMATES

There is no current National Instrument 43-101 compliant resource or reserve estimate for any of the mineralized veins on the Monitor Property.

16.0 MINING METHODS

Not applicable for this technical report.

17.0 RECOVERY METHODS

Not applicable for this technical report.

18.0 PROJECT INFRASTRUCTURE

Not applicable for this technical report.

19.0 MARKET STUDIES AND CONTRACTS

Not applicable for this technical report.

20.0 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

ASR is planning to implement a water quality monitoring program to test the mine and surface waters. Regular water sampling will be done at the various historic mine sites and downstream. As the property is in a remote and sparsely populated area, no significant social or community impacts are foreseen by the exploration proposed in this report.

21.0 CAPITAL AND OPERATING COSTS

Not applicable for this technical report.

22.0 ECONOMIC ANALYSIS

Not applicable for this technical report.

23.0 ADJACENT PROPERTIES

Mining in the Coeur d'Alene district began in the late 1880s, and more than 90 historical mines are recorded (Bennett et al., 1989) although only a few such as the Galena, Lucky Friday and Sunshine are currently in operation (Figures 6 and 8). Most of the mines were located along the South Fork of the Coeur d'Alene River and its major tributaries. Total production records indicate that this district ranks among the top 1 percent of the world producers for silver (34,300 tonnes Ag) and lead (7.3 Mt Pb) and among the top 10 percent of world producers for zinc (2.8 Mt Zn) (Long, 1998a, 1998b). The mined ore deposits in the district are steeply dipping quartz and siderite (FeCO₃) veins containing massive sulfide Ag-Pb-Zn ± Cu ± Au mineralization.

Within the immediate vicinity of the Monitor claim block there are a number of massive sulfide veins that were historically worked on a small scale (Figure 7). These include the "St. Lawrence" workings which lie approximately 1000 feet east-northeast of the Richmond Shafts and close to the northern boundary of the Monitor claims. They appear to have been developed down an eastern extension of the Richmond Vein. Spalding (1913) states that at St. Lawrence a 600 to 700 foot long drift was driven along the vein. The copper-silver-gold mineralization appeared to be identical to that shipped in the early 1900s from the Monitor and Richmond veins to a smelter (Tables 2 and 3). Spalding (1913) notes that some mineralized material was likewise shipped from the St. Lawrence workings.

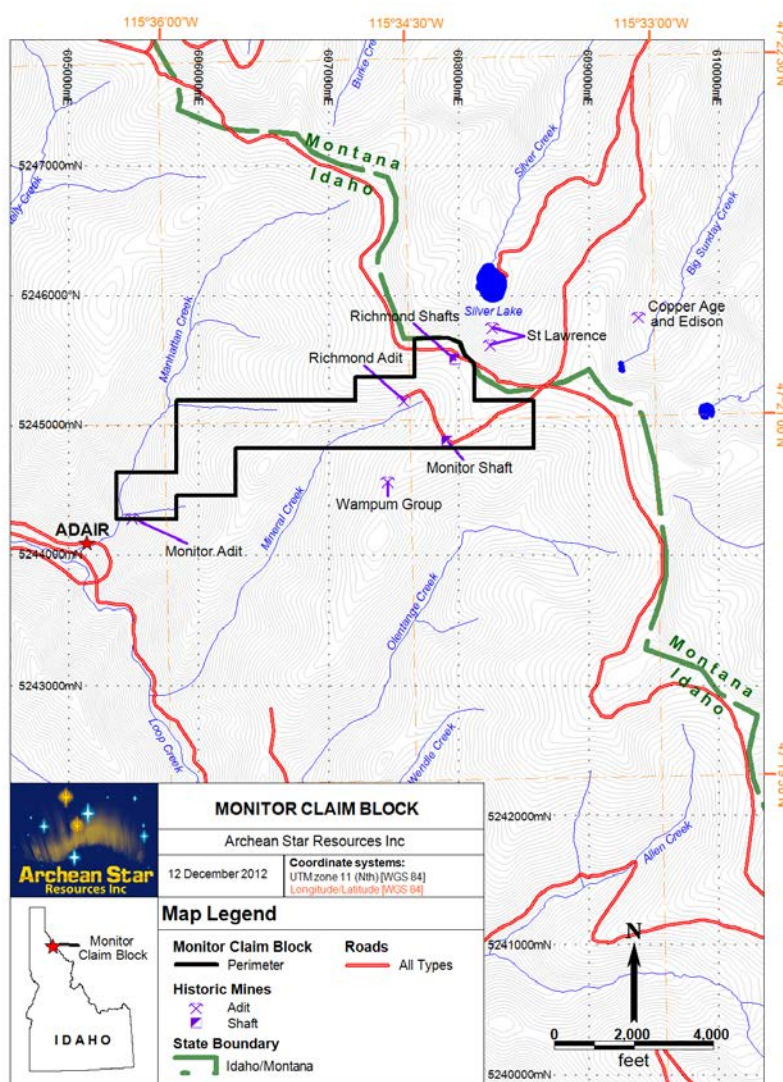


Figure 7: The location of other historic small mines in the vicinity of the Monitor Mine property.

"The Geology & Mineralization at the Cu-Au-Ag Monitor Mine Property, Eastern Coeur d'Alene Mining District, Idaho."
 by G.E. Ray. NI 43-101 Technical Report for Archean Star Resources Inc., February 10th 2013.

The "Copper Age and Edison" workings lie about 5000 feet east-northeast of the Richmond Shafts (Figure 7). They reported followed eastern extensions of both the Richmond and Monitor veins. A tunnel and drift several hundred feet in length showed the near-vertical vein to be about ten feet thick. Like the two veins on the Monitor property, they contained chalcopyrite and chalcocite in a gangue of oxidized siderite (Spalding, 1913).

Approximately 2000 feet southwest of the Monitor Shaft there was the "Wampum Group" (Figure 7) which contained a number of veins with copper mineralization; these veins trended sub-parallel to the Monitor Vein (Spalding, 1913).

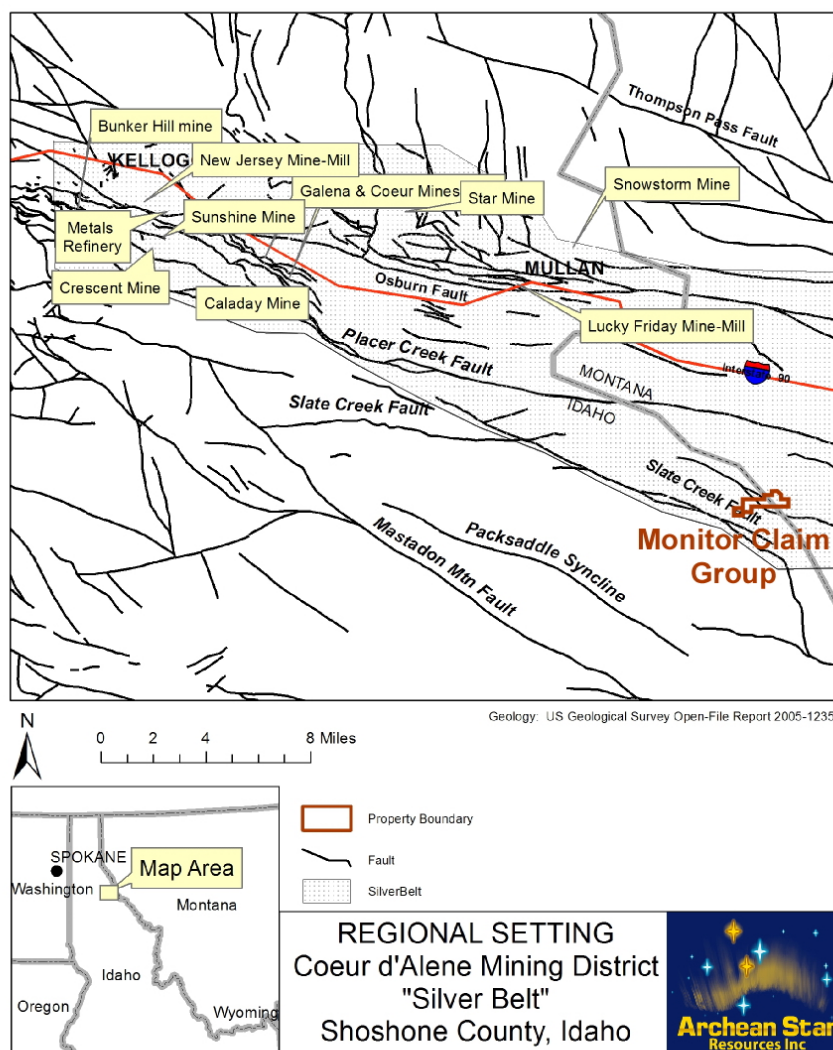


Figure 8: The location of major mines lying north-west of the Monitor Property, Coeur d'Alene District.

Some of the more important producing and past producing mines lying west and north of the Monitor property are shown in Figure 8. However, the reader should be aware that the production data quoted below for these mines was obtained from scientific and/or government publications. It is not NI 43-101 compliant and thus is unreliable and cannot be verified.

The Lucky Friday Mine is situated twelve miles north-west of the Monitor property, lying close to the Osburn Fault. In 1942 the Lucky Friday Mining Company shipped its first ore, and in 1964, after the company merged with Hecla, construction of a 6000 feet deep main production shaft began. The silver-rich ore bodies become richer with depth and up to the year 2002 the mine had produced 125 Moz of silver. It remains operational, but is currently under rehabilitation.

The Galena Mine is situated about 20 miles north-west of the Monitor claims. It was periodically mined until the Great Depression in the 1930s. Then in 1947, Asarco leased the mine and, after sinking a 3000 feet deep shaft, commercial silver ore was discovered. Like the Friday Mine, the veins became higher grade with depth. New production began in 1955 and at that time Galena was one of the largest producers in the US. This was due to Asarco's efficient operation and to more than twenty-two years of labor harmony. The mine closed in 1991 due to low metal prices, but was reopened in 1996 under a new partnership between Coeur d'Alene Mines Corp., and Asarco. This partnership was called the Silver Valley Resources Corporation. In 1999 Coeur d'Alene Mines Corp. bought out Asarco's interest in the partnership and took over operation of the mine.

The Coeur Mine which lies close to the Galena Mine (Figure 8) began production in 1974. It was owned by Coeur d'Alene Mines Corporation and operated by Asarco until 1991. It opened briefly in 1996, but closed again because of low reserves. During its operation the veins produced about 2.5 Moz of silver a year (Bennett, 2006).

The Bunker Hill Mine lies in the western part of the district, approximately 30 miles north-west of the Monitor Mine (Figure 8). It was discovered in 1885, after which in 1903 the 3200 meter-long Kellogg tunnel was driven and the very large and rich "March" ore body was discovered. The Bunker Hill Mining Company built its own smelter in 1917 and an electrolytic zinc plant (with Hecla Mining Company) in 1928. In later years, sulfuric acid generated from the smelter was combined with phosphate ore mined from southeastern Idaho to make fertilizer. Gulf Resources and Chemical Corporation purchased the Bunker Hill Company in 1968, but closed the operation in 1981. When the mine and metallurgical complex closed, it was producing about 20 percent of the nation's refined lead and zinc and 25 percent of its silver. The mine reopened in 1988, but closed again in 1991. Bunker Hill was the largest metal producer in the Coeur d'Alene mining camp. There are more than 200 km of underground workings and it was the largest lead-zinc mine in the United States. It still reportedly contains substantial reserves of zinc-rich ore (Bennett, 2006).

The Morning and Star Mines lie about 17 miles north-west of the Monitor property; they both worked the same ore body. The Morning Mine at the east end of the vein system is Pb-Ag-rich whereas the Star Mine ore is Zn-rich. This complex zinc-lead ore initially caused metallurgical problems. But in the 1920s after selective floatation methods were discovered, it became possible to separate the two metals. In 1961 Hecla leased the Morning Mine but stopped mining in 1982. The mine was later re-opened but closed again in 1990. The Morning-Star had

the second largest Ag-Pb-Zn production in the Coeur d'Alene district after the Bunker Hill Mine (Bennett, 2006).

24.0 OTHER RELEVANT DATA AND INFORMATION

The author is not aware of any other relevant material data and information that would result in misleading statements regarding the Monitor Mine property.

25.0 INTERPRETATION AND CONCLUSIONS

The Monitor property represents a grassroots exploration project where it is hoped to discover Cu-Au-(Ag) sulfide-rich veins with sufficient tonnage and metal grades to support an underground mine or surface heap-leach operation. Documentary evidence derived from the historic underground mining between 1900 and 1908 (Tables 2 and 3) suggests the presence of at least two sulfide-rich veins, the Monitor and the Richmond. However, elsewhere in the Coeur d'Alene camp, the soil and forest cover has often concealed near-surface mineralized exposures. This and the fact that elsewhere many vein systems occur in sub-parallel clusters suggest that additional undiscovered veins exist on the Monitor property.

The Monitor property is considered to have a good exploration potential for high-grade sulfide-rich veins for the following reasons:

- It lies at the eastern end of the Coeur d'Alene Mining District which has been a world class producer of silver with byproduct gold and base metals.
- Despite some small scale historic underground mining on its Cu-Au-(Ag) veins, the Monitor property is under-explored since it has never been drilled or subjected to any modern geophysical or detailed geochemical exploration programs.
- Parts of the property are easily accessible by road.
- Grab samples recently collected from the waste dumps gave maximum assays of 13.55% Cu, 15.45 g/t Au and 57.7 g/t Ag (Table 5). This confirms historic reports that high grade copper-gold-silver mineralization exists on the property.
- At least two veins, the Richmond and the Monitor, are known to be present on the claims; they are reportedly up to 15 feet thick and historic underground workings show these veins extend to over 700 feet in depth.
- There is relatively little rock exposure on the property. It is likely that geochemical soil and geophysical exploration programs will discover additional veins as well as outline lateral extensions of the Richmond and Monitor mineralized structures.

The reader is cautioned that while the Monitor property is believed (for the reasons mentioned above) to have a good potential for hosting Cu-Ag (Ag) mineralization suitable for supporting an underground mining venture, the project faces the usual economic risks and uncertainties

common to the precious and base metal exploration industry worldwide. One major risk is whether the current high prices of copper, gold and silver are sustained; a significant fall in these metal prices would seriously impact the economic viability of any exploration-mining operation. Other uncertainties include the US Federal and State governments regarding their granting title and permits, as well as the legal requirements to undertake an exploration/ mining program that would satisfy environmental standards.

26.0 RECOMMENDATIONS

As soon as weather improves and the necessary permits are granted, ASR intends to start a serious exploration program on the Monitor property. The program will include both underground and surface exploration. At least five phases, of initial exploration are recommended, namely:

1. Re-opening and renovating the old underground Monitor and Richmond mine tunnels to be followed by channel and bulk sampling the veins. This work will determine the true length and orientation of the tunnels, and may provide information on the width, strike and metal-grades of the Monitor and Richmond veins.
2. As far as possible, systematically channel sample underground exposures of the veins. This should be done to determine: (a) whether any metal zoning is present across the veins and (b) in which minerals and in what form the gold and silver occurs.
3. Conduct surface geologic mapping, prospecting, and geochemical soil sampling to locate any strike extensions of the Richmond and Monitor veins, and discover any other mineralized structures on the claim block.
4. Conduct ground and/or aerial geophysical surveys after consultation with a geophysicist. This should be done to further aid in the extension and discovery of mineralized veins.
5. Once the permitting process is complete and final interpretations of the geophysical and soil geochemical data are reviewed, ASR should select and test targets with a diamond drill program. Drilling may be done from both surface and underground drill pads.

Immediately following my due diligence visit in October 2012, prospector Martin Clemets organized a visit to outline the prospects of accessing the Monitor portal. At a later date the Richmond portal will also be assessed.

Provided full financing is obtained, and subject to permitting, the early stages of the 2013 season exploration are planned as follows:

- *Review the historical data from Hecla and Anaconda libraries (underway)*
- *Conduct computer mapping and modeling (underway)*
- *Acquire additional claims along strike extensions of the known veins (underway)*
- *Access the Monitor and Richmond underground workings (has begun and hoped to be completed in early 2013)*

Access for Operations

- *Permitting for access (Feb - Mar 2013)*
- *Re-open road access to the Monitor lower adit (Apr 2013)*
- *Install operations trailer and power at the Monitor and Richmond portals (April 2013)*
- *Extend Monitor and Richmond adit rail lines out to the mine waste dump (Apr – May 2013)*

Work planned for the Monitor underground workings

- *Re-open the Monitor portal and dewater the tunnel (underway)*
- *Re-timber the portal*
- *Conduct safety inspection along the tunnel and make it operational for work*
- *Map the tunnel, identify the mineralized zones and assay*

Work planned for the Richmond underground workings

- *Weather permitting, plow the road to the Richmond Vein area and reopen the portal with a backhoe*
- *Re-timber the Richmond portal and conduct safety inspection along the tunnel*
- *Map and geologically sample the tunnel and mineralized zones*

Permitting and Drilling the Monitor & Richmond veins (2012 – 2013)

- *Conduct Acid Rock Drainage and water testing*
- *Start permitting for mine waste storage*
- *Locate drill sites to test lateral & vertical extensions of the Monitor and Richmond veins*
- *Apply to the Bureau of Land Management (BLM) for drill permits*
- *Set up drill pads and commence drilling (hopefully by May 2013)*
- *Log drill core, sample and assay (June 2013)*
- *Conduct metallurgical testing of both Monitor and Richmond mineralization*

Geophysical Survey (if required)

- *Contact geophysical consultants familiar with the district) (completed)*
- *Identify and assess type of geophysical survey to be used (underway)*
- *Conduct geophysical survey (if required)*

Preparation for bulk sampling (Apr – June 2013)

- *Acquire electric locomotive- mine cars*
- *Install power generation at the sites and run power lines*
- *Install weather cover for equipment and lighting*
- *Install compressors and piping*
- *Install ventilation (possibly drill a ventilation duct)*
- *Engage mining contractor*
- *Conduct bulk metallurgical testing*
- *Install a powder magazine*

To-date ASR has spent US\$159,430 on the Monitor property. The costs of the initial geochemical, geophysical and drill programs up to the end of 2013 are estimated to be **US\$4,047,178**. These are itemized in Table 6 below and are presented in full detail in Appendix B.

Table 6: Itemized costs of the recommended exploration during 2013 at the Monitor Property.

Monitor Project Expenses - Forecast to Dec 2013	Total US\$
Acquisition & Holding	84,000
Assay & Analysis	60,000
Communications	6,000
Consultants	87,000
Drilling	550,000
Equipment Rental	10,500
Field costs	435,000
Drilling ventilation channel & bulk sampling tests	95,000
Geologists wages	260,000
Geophysical survey	130,000
Geotech costs	25,000
Haulage	52,500
Insurance	18,000
Bulk Sample Mining	675,000
Mobilize/Demobilize	83,500
Office & Storage	36,000
Permitting	37,000
Reclamation Bond Drill	18,000
Rentals	36,000
Reports	30,000
Shipping	8,000
Supplies	115,000
Travel & Accom	57,000
<i>Subtotal</i>	<u>2,908,500</u>
Contingency	10% 290,850
<i>Subtotal</i>	<u>3,199,350</u>
Project Overhead	10% 319,935
<i>Subtotal</i>	<u>3,519,285</u>
Administration	15% 527,893
Total Projection	<u>4,047,178</u>

"The Geology & Mineralization at the Cu-Au-Ag Monitor Mine Property, Eastern Coeur d'Alene Mining District, Idaho."
by G.E. Ray. NI 43-101 Technical Report for Archean Star Resources Inc., February 10th 2013.

27.0 REFERENCES

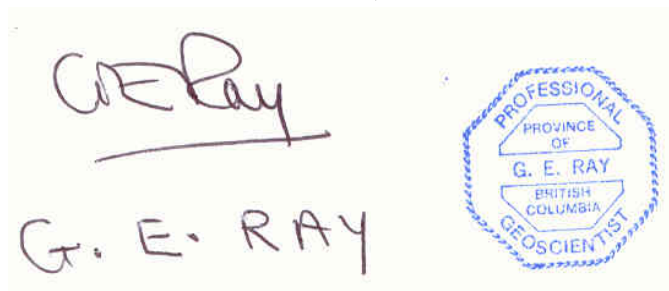
- Anderson, H.E., and Davis, D.W. (1995): U-Pb geochronology of the Moyie sills, Purcell Supergroup, southeastern British Columbia: Implications for the Mesoproterozoic geological history of the Purcell (Belt) basin. *Canadian Journal of Earth Sciences*, Volume 32, pages 1180-1193.
- Anonymous, (1918?): To the Monitor Vein. Unpublished report by Montana-Idaho Copper Company, 12 pages.
- Bennett, E.H. (1984): A hypothesis concerning the genesis of ore-bodies in the Coeur d'Alene mining district, Idaho. Idaho Geological Survey Technical Report TR-84-7, 39 pages.
- Bennett, E.H. (2006): The fabulous Coeur d'Alene district: Presentation for North Idaho Chamber of Commerce Legislative Tour, November 2006, Post Falls, Idaho, 35 pages.
- Bennett, E.H., and Venkatakrishnan. (1982): A palinspastic reconstruction of the Coeur d'Alene mining district based on ore deposits and structural data. *Economic Geology*, Volume 77, pages. 1851-1866.
- Bennett, E.H., P.L. Siems, and J.T. Constantopoulos. (1989): The geology and history of the Coeur d'Alene mining district. *in* V. E. Chamberlain, Roy M. Breckenridge, and Bill Bonnichsen, editors, *Guidebook to the Geology of Northern and Western Idaho and Surrounding Area*. Idaho Geological Survey Bulletin 28, pages 137-156.
- Fleck, R.J., R.E. Criss, G.F. Eaton, R.W. Cleland, C.S. Wavra, and W.D. Bond. (2002): Age and origin of base- and precious-metal veins of the Coeur d'Alene mining district, Idaho. *Economic Geology*, Volume 97, Number 1, pages 23-42.
- Godlewski, D. (2011): Wallace Formation breccias exposed along Trout Creek, Mineral County, Montana. *The Journal of the Tobacco Root Geological Society, Northwest Geology*, Volume 40, pages 87-92.
- Gott, G.B, and Cathrall, J.B. (1979): Dispersion patterns in rocks formed by the ratio of Cd/Zn, Pb/Zn and Cu/Pb in the Coeur d'Alene district, Idaho and Montana. US Geological Survey, Miscellaneous Investigation Series, Map I-1093-I, scale 1:62,500.
- Harrison, J.E., Griggs, A.B., and Wells, J.D. (1974): Tectonic features of the Pre-Cambrian Belt basin and their influence on post-Belt structures. US Geological Survey Professional Paper 866, 15 pages.
- Hobbs, S.W., A.B. Griggs, R.E. Wallace, and A.B. Campbell. (1965): Geology of the Coeur d'Alene district, Shoshone County, Idaho: U.S. Geological Survey Professional Paper 478, 139 pages, scale 1:24,000.

- Kleinkopf, M.D., Harrison, J.E., and Zartman, R.E. (1972): Aeromagnetic and Geological Map of Northwestern Montana and northern Idaho. Geophysical Investigations. Map GP-830. US Geological Survey, map and 5 pages.
- Long, K.R. (1998a): Grade and tonnage models for Coeur d'Alene-type polymetallic veins. U.S. Geological Survey Open-File Report 98-583, 28 pages.
- Long, K.R. (1998b): Production and disposal of mill tailings in the Coeur d'Alene mining region, Shoshone County, Idaho: Preliminary estimates. US Geological Survey Open-File Report 98-595, 14 pages.
- Lyons, T.W., and Berner, R.A. (1989): Chemistry and sedimentology of Holocene Black Sea sediments: implications for the ancient. Geological Society of America. Abstracts with Programs, Volume 21, No. 6, page A175.
- Mauk, J.L., and White. B.G. (2004): Stratigraphy of the Proterozoic Revett Formation and its control on the Ag-Pb-Zn vein mineralization in the Coeur d'Alene District, Idaho. Economic Geology, Volume 99, pages 295-312.
- MCS (2005): St. Joe Watershed Abandoned Mine Site Investigation Project: Idaho Panhandle National Forests. Contract No. 53-0343-0-0009. Task Order No. IPNF-MCS-09-04-01, prepared for USDA Forest Service Service, Region 1, May 18th 2005. Report by MCS Environmental, Inc.
- Ransome, F.L., and Calkins, F.C, (1908): The geology and ore deposits of the Coeur d'Alene district, Idaho. US Geological Survey Professional Paper 62, 203 pages.
- Spalding, E.P. (1913): Montana-Idaho Copper Company. Unpublished report for the Montana-Idaho Copper Company, 14 pages.
- Wavra, C.S., Bond, W.D., and Reid, R.R. (1994): Evidence from the Sunshine Mine for dip-slip movement during Coeur d'Alene district mineralization. Economic Geology, Volume 89, pages 515-527.
- White, B.G. (2000): Coeur d'Alene Mining District: product of pre-concentrated source deposits and tectonism within the Lewis and Clark Line.
- White, B.G., Winston, D., and Lange, I. (2000): The Lewis and Clark Line and Coeur d'Alene Mining District. Geological field trips, western Montana and adjacent areas: Rocky Mountain Section of the Geological Society of America, University of Montana, pages 103-121.

28.0 DATE & AUTHOR SIGNATURE

Endorsed by Qualified Persons:

Gerald E. Ray, P.Geo; Ph.D
Registered Professional Geologist, License No. 19503
Province of British Columbia, CANADA.



The image shows a handwritten signature 'G.E. Ray' in purple ink, with 'G. E. RAY' written below it in the same ink. To the right is a blue circular stamp. The stamp has a double-lined border. Inside the border, the text 'PROFESSIONAL' is at the top, 'PROVINCE OF' is in the middle, 'G. E. RAY' is in the center, 'BRITISH COLUMBIA' is below that, and 'GEOSCIENTIST' is at the bottom.

Dated this 10th day of February 2013

29.0 CERTIFICATE OF AUTHOR

Gerald E. Ray, Ph.D., P.Geo.
2243 McNeill Avenue, Victoria, BC, CANADA V8S 2Y7
Telephone 1 250 592 9562. Email: geray@shaw.ca

I, Gerald Edwin RAY, P.Geo., P. Eng., do hereby certify that:

- (i) In order to undertake a field examination of the Monitor property in the Coeur d'Alene district of northern Idaho, and write this NI 43-101 technical report, I was contracted by Archean Star Resources (ASR) of 410-744 West Hastings Street, Vancouver, V6C 1A5 to work as an independent consulting geologist.
- (ii) I graduated with a B.Sc., degree in Geology from the University of Bristol (UK) in 1966 and obtained a Ph.D., from the "Research Center for African Geology" at the Leeds University (UK) in 1970.
- (iii) I am a member of the Association of Professional Geoscientists of British Columbia (License # 19503) and the Association of Professional Engineers of Saskatchewan (Member No. 2888).
- (iv) I have worked as a field and economic geologist for a total of 42 years since my graduation from university. This has involved employment with government geological surveys (Malawi, Saskatchewan and British Columbia) and with junior and major exploration companies including Rio Tinto Zinc, Falconbridge and Billiton Minerals. This work included exploration for Archean and Proterozoic greenstone-hosted gold, Cu-Au skarns, IOCG's, Cu porphyries and Au-Ag epithermal and mesothermal deposits.
- (v) I have read the definition of "qualified person" set out in the National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with professional associations (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.

- (vi) I am fully responsible for all items in this document and for the preparation of all sections of this document titled "*The Geology & Mineralization at the Cu-Au-Ag Monitor Mine Property, Eastern Coeur d'Alene District, Idaho*" and dated the 10th Day of February, 2013 (the "Technical Report"). I visited the Monitor Property on the 25th and 26th October 2012 for two days.
- (vii) I have not had any prior involvement with the property that is the subject of the Technical Report.
- (viii) As of the 10th day of February, 2013, I am not aware of any material fact or material changes with respect to the subject matters of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
- (ix) I am independent of the issuer applying all the tests in section 1.5 of the National Instrument 43-101.
- (x) I have read National Instrument 43-101 and Form 43-101FI, and the Technical Report has been prepared in compliance with that instrument and form.
- (xi) I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in public company files on their websites accessible by the public, of the Technical Report.

30.0 APPENDICES

Appendix A: Option and Joint Venture Agreement between ASR and AMCOR

OPTION AND JOINT VENTURE AGREEMENT

This Agreement is made as of February 5, 2013

AMONG:

ARCHEAN STAR RESOURCES INC., a corporation existing under the laws of British Columbia and having its registered office at 410 – 744 West Hastings Street, Vancouver, British Columbia, V6C 1A5

(hereinafter "**Archean Star**")

AND:

NORTHERN ADVENTURES, LLC., a corporation existing under the laws of the State of Idaho and having its head office at 24785 E. Doyle Road, Cataldo, ID 83810

(hereinafter "**NALLC**")

AND:

AMERICAN CORDILLERA MINING CORPORATION (formerly **APD ANTIQUITIES, INC. ("APD")**) and **AMCOR EXPLORATION, INC. ("AMEX")**, a wholly owned subsidiary of **AMERICAN CORDILLERA MINING CORPORATION**, both corporations existing under the laws of the State of Nevada and having their registered offices at 1314 South Grand Boulevard, Suite 2-17, Spokane, WA 99202

(collectively, hereinafter "**AMCOR**")

WHEREAS:

- A. NALLC is the sole registered and legal and beneficial owner of 20 unpatented lode mining claims (the "**Claims**") commonly referred to as the Monitor-Richmond property, located in Shoshone County, Idaho and the Copper Age property, located in Mineral County, Montana, as more particularly described in Schedule A to this Agreement (the "**Property**");
- B. Northern Adventures, Inc. ("**NAI**") acquired a 100% leasehold interest (the "**Leasehold Interest**") in the Claims from NALLC pursuant to the Mining Lease (as hereinafter defined);

"The Geology & Mineralization at the Cu-Au-Ag Monitor Mine Property, Eastern Coeur d'Alene Mining District, Idaho." by G.E. Ray. NI 43-101 Technical Report for Archean Star Resources Inc., February 10th 2013.

- C. NAI, NALLC and AMCOR entered into the Purchase Option Agreement (as hereinafter defined) whereby AMCOR acquired from NAI the option to purchase numerous mining leases, patented mining claims, unpatented mining claims which include, but are not limited to, the Claims that are subject of the Mining Lease, which option was exercised on December 28, 2012;
- D. In connection with the Purchase Option Agreement, AMCOR acquired the 100% Leasehold Interest in the Claims pursuant to the assignment of the Mining Lease by NAI dated December 28, 2012 (the “**Asset Purchase Agreement**”) whereby AMCOR holds the right to explore, develop and conduct mining operations on the Property in accordance with the terms of the Mining Lease;
- E. AMCOR is the registered, legal and beneficial owner of a 100% ownership interest in AMEX;
- F. NAI, NALLC, AMCOR and Archean Star entered into the Letter Agreement dated October 30, 2012 (as hereinafter defined) whereby NAI, NALLC, APD and AMCOR have agreed to grant to Archean Star the exclusive right and Option (as hereinafter defined) to acquire up to an undivided 80% interest in and to the Leasehold Interest subject to the terms of the Mining Lease and in accordance with the terms and conditions of this Agreement; and
- G. After Archean Star earns an interest in the Leasehold Interest, a Joint Venture shall be formed between Archean Star and AMCOR upon the occurrence of certain events, in accordance with the terms and conditions of this Agreement.

For valuable consideration, the parties agree as follows:

1. INTERPRETATION

1.1 **Definitions.** In this Agreement, terms and expressions given a defined meaning in any Schedule shall have the corresponding meaning in this Agreement and:

"**Affiliate**" has the meaning given to that term in the *Securities Act* (British Columbia).

"**Agreement**" means this Option and Joint Venture Agreement, and any amendments as may be agreed to in writing from time to time by the Parties hereto.

"**Area of Mutual Interest**" has the meaning ascribed to it in Section 3.14 of this Agreement.

"**Asset Purchase Agreement**" an agreement dated December 28, 2012 between AMCOR, AMEX, NAI and NALLC which has the meaning set out in recital D to this Agreement.

"**BLM**" means United States Bureau of Land Management.

"**Business Day**" means a day on which commercial banks are open both in Vancouver, British Columbia and Spokane, Washington.

"**Buy-out Option**" has the meaning ascribed to it in Section 7.1 of this Agreement.

“Claims” has the meaning set out in recital A to this Agreement, including the replacement or successor claims, and all mining leases and other mining interests derived from any such Claims.

“Decision to Mine” has the meaning ascribed to it in Section 8.1 of this Agreement.

“Development” means all preparation for the removal and recovery of Products, including the construction or installation of a mill or any other improvements to be used for the mining, handling, milling, processing or other beneficiation of Products.

“Exchange” means the TSX Venture Exchange Inc.

“Expenditures” means, without duplication, all costs and expenses actually and directly incurred by a party on or for the benefit of a Property including without limiting the generality of the foregoing, monies expended in doing geophysical, geochemical and geological surveys, drilling, drifting and other surface and underground work, assaying and metallurgical testing, engineering and geological consulting, and building and operating any exploration facilities on the Property; land fees associated with the management of the Property, including community payments and expenses directly related to community relations and the acquisition of exploration permits; payment of fees, wages, salaries, travelling expenses, and fringe benefits (whether or not required by law) of all persons engaged in work with respect to and for the benefit of the Property, in paying for the food, lodging and other reasonable needs of such persons and including all costs at prevailing charge out rates for any personnel who from time to time are engaged directly in work on the Property, such rates to be in accordance with industry standards.

“Exploration” means all activities directed toward ascertaining the existence, location, quantity, quality or commercial value of deposits of Products.

“Feasibility Study” means a detailed report prepared by, or prepared under the supervision of, an Independent Qualified Person in accordance with NI 43-101 evaluating the feasibility of placing any part of the Property into commercial production as a Mine and shall include a reasonable assessment of the various categories of ore reserves and resources and their amenability to metallurgical treatment, a detailed description of the work, personnel, equipment and supplies required to bring such part of the Property into commercial production and the estimated cost thereof, a description of the mining and processing methods to be employed and a financial appraisal of the proposed operations. The study will include:

- (i) a description of that part of the Property to be covered by the proposed Mine;
- (ii) the estimated minable reserves and their composition and content;
- (iii) the estimated metal recoveries and results of any metallurgical tests;
- (iv) the proposed procedures for development, mining and processing of the ores;
- (v) the nature and extent of all infrastructure, machinery and equipment required for the proposed Mine and the estimated timing and costs to purchase, construct and install them;

- (vii) a description of the environmental studies, permitting process, and permits required for the construction and operation of the proposed Mine;
- (viii) a description of any additional activities required to achieve commercial production; and
- (ix) such other data and information as are reasonably necessary to substantiate the existence of an ore deposit of sufficient size, grade and recoverability to justify development of a mine, taking into account all relevant business, tax and other economic considerations.

“Independent” means a person who meets the test for Independence.

“Independence” has the meaning ascribed to that term in NI 43-101.

"Joint Venture" means the exploration joint venture which may be formed with respect to the Leasehold Interest pursuant to Section 8.1.

"Joint Venture Assets" means, after the formation of the Joint Venture, the Leasehold Interest and all other assets of the Joint Venture.

"Joint Venture Interest" means the percentage undivided interest of each of AMCOR and Archean Star in the Joint Venture, which interest shall, at all times, correspond with and represent their respective percentage undivided interest in the Leasehold Interest pursuant to this Agreement and vice versa.

“Joint Withdrawal” has the meaning ascribed to it in Section 16.2 of Schedule “C” to this Agreement.

“JV Formation Date” has the meaning ascribed to it in Section 8.1 of this Agreement.

“Leasehold Interest” has the meaning set out in recital B to this Agreement.

“Letter Agreement” means the letter agreement dated October 30, 2012 amongst NAI, NALLC, APD, AMEX and Archean Star, which is superseded in its entirety by this Agreement.

"Lien" means any lien, security interest, mortgage, charge, encumbrance, or other claim of a third party, whether registered or unregistered, and whether arising by agreement, statute or otherwise.

"Management Committee" means the committee established by the parties on the formation of a Joint Venture as described in Section 3.1 of Schedule "C".

"Minerals" means any and all ores (and concentrates or metals derived therefrom) of precious, base and industrial minerals, in, on or under a Property which may lawfully be explored for, mined and sold by the Parties pursuant to the instruments of title under which the Property is held.

“Mining” means all operations associated with the extraction and treatment of Minerals on a commercial basis.

“Mining Lease” means the Mining Lease Agreement dated June 27, 2012, as amended on December 6, 2012 between NALLC and NAI concerning the Claims.

“Net Proceeds” means certain amounts calculated as provided in Exhibit “G”, which may be payable to a party to the Joint Venture under Section 10 of Schedule “C”.

“NI 43-101” means National Instrument 43-101 entitled “Standards of Disclosure for Mineral Projects” promulgated by the Canadian Securities Administrators.

“NSR” means the net smelter return royalty, which is set out in the Mining Lease and as set out in Schedule “D” to this Agreement.

“Operator” means the party responsible for carrying out, or causing to be carried out, all work in respect of the Property during the period of the Option and during the period of a Joint Venture.

“Operations” means the activities carried out under this Agreement and Schedule C.

“Option” means the option granted to Archean Star by NAI in accordance with Section 3.1.

“Option Date” has the meaning ascribed to it in Section 3.2 of this Agreement.

“Party” and **“Parties”** means the parties, individually or jointly, to this Agreement.

“Prime Rate” means the interest rate quoted as “Prime” by the Bank of Canada.

“Preliminary Economic Assessment” shall have the meaning ascribed to such term in NI 43-101.

“Products” means all ores, minerals and mineral resources produced from the Properties under this Agreement.

“Program” means a written description, prepared by the Operator and adopted by the Management Committee, outlining all Expenditures which the Operator contemplates incurring on the Property, including a detailed description of all work which the Operator proposes to carry out on the Property pursuant to such Program.

“Property” or **“Properties”** means the Claims located in Shoshone County, Idaho and Mineral County, Montana more particularly described in Schedule “A” hereto and those rights and benefits appurtenant to the Property, including those rights and benefits arising under the Mining Lease, together with any and all substitute, modified or successor rights and title thereto.

“Purchase Option Agreement” means the Option to Purchase Assets Agreement dated July 3, 2012, as amended on October 1, 2012 among APD, AMCOR, NAI and NALLC.

“Qualified Person” has the meaning ascribed to that term in NI 43-101.

“Remaining Party” has the meaning ascribed to it in Section 16.1 of Schedule “C” to this Agreement.

"Representative" means the individual appointed from time to time by a Party to act as such Party's representative on a Management Committee.

"Withdrawing Party" has the meaning ascribed to it in Section 16.1 of Schedule "C" to this Agreement.

1.2 **Extended Meanings** means, unless otherwise specified, that words importing the singular include the plural and vice versa. The term "including" means "including without limitation."

1.3 **Headings.** The division of this Agreement into sections and the insertion of headings are for convenience of reference only and are not to affect the construction or interpretation of this Agreement.

1.4 **Severability.** If any term of this Agreement is or becomes illegal, invalid or unenforceable, that term shall not affect the legality, validity or enforceability of the remaining terms of this Agreement.

1.5 **Entire Agreement.** This Agreement constitutes the entire agreement between the parties with respect to the subject matter herein and supersedes all prior arrangements, negotiations, discussions, undertakings, representations, warranties and understandings, whether written or verbal.

1.6 **Time.** For every provision in this Agreement, time is of the essence.

1.7 **Governing Law.** This Agreement shall be governed by and shall be construed and interpreted in accordance with the laws of British Columbia.

1.8 **Statutory References.** Each reference to a statute in this Agreement includes the regulations made under that statute, as amended or re-enacted from time to time.

1.9 **Currency.** All references to \$ herein refer to United States dollars.

1.10 **Schedules.** The following Schedules are attached to and form part of this Agreement:

Schedule "A" Description of the Property and the Claim

Schedule "B" Property Obligations

Schedule "C" Joint Venture Terms

Schedule "D" Mining Lease Net Smelter Returns

Schedule "E" Mining Lease

Schedule "E" Joint Venture Net Smelter Returns

Schedule "G" Net Proceeds Calculation

2. REPRESENTATIONS AND WARRANTIES

2.1 Each Party represents and warrants to the other Parties that:

- (a) each has the full right, power, capacity and authority to enter into, execute and deliver this Agreement and be bound by its terms;
- (b) each is a corporation duly organized, validly existing and in good standing under its applicable laws of incorporation and has all requisite corporate power and authority to own its properties and carry on its business as now being conducted;
- (c) the execution, delivery and performance of this Agreement and the matters contemplated herein have been duly authorized by all necessary corporate action and no other corporate proceedings are necessary to authorize this Agreement and the matters contemplated herein;
- (d) the Agreement, when delivered in accordance with the terms hereof, will constitute a valid and binding obligation enforceable against the Party in accordance with its terms, except (i) as such enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium, liquidation and other similar laws of general application affecting enforcement of creditors' rights generally; and (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies;
- (e) the consummation of this Agreement will not conflict with nor result in any breach of any agreement or other instrument whatever to which each Party herein is a party or by which each Party is bound or to which each Party may be subject;
- (f) no proceedings are pending for, and each Party is unaware of any basis for, the institution of any proceedings leading to the placing of the Party in bankruptcy or subject to any other laws governing the affairs of insolvent parties;
- (g) none of the Parties requires the consent or approval of any other Party or entity to the entering into this Agreement or any of the transactions contemplated hereby;
- (h) each Party has duly executed and delivered this Agreement, which binds it in accordance with its terms; and
- (i) each Party has, or will before the Option Date, duly obtained all necessary governmental, corporate, and other authorizations for its execution and performance of this Agreement, and the consummation of the transactions contemplated herein shall not, with the giving of notice or the passage of time, or both, result in a breach of, constitute a default under, or result in the creation of any encumbrances on its assets under the terms of provisions of any law applicable to it, its constating documents, any resolution of its directors or shareholders or any indenture, agreement or other instrument to which it is a party or by which it or its assets may be bound.

2.2 In addition to the representations of AMCOR and/or NALLC pursuant to section 2.1 above, AMCOR and NALLC represents and warrants to the best of their knowledge to Archean Star, and acknowledges that Archean Star is relying upon such representations and warranties in connection with the grant of the Option, that:

- (a) NALLC is the legal and beneficial owner of the Claims, which are free and clear of all liens, claims or encumbrances of any nature whatsoever;
- (b) (i) the Claims comprising the Property were properly recorded and filed with appropriate governmental agencies; (ii) all assessment work required to hold the Claims has been performed and all governmental fees have been paid and all filings required to maintain the Claims in good standing have been properly and timely recorded or filed with appropriate governmental agencies; (iii) other than those royalties (including the NSR) with respect to the Property as indicated in Schedule "D" hereto, the Claims are free and clear of encumbrances or defects in title; and (iv) neither AMCOR nor NALLC has no knowledge of conflicting mining claims;
- (c) all fees, taxes, assessments, rentals, levies or other payments required to be made relating to the Property have been paid;
- (d) the Property is properly and accurately described in Schedule "A" hereto;
- (e) NALLC holds all permits, licenses, consents and authorities issued by any government or governmental authority which are necessary in connection with the ownership of the Claims;
- (f) with the exception of the NSR, no person, firm or corporation has any proprietary or possessory interest in the Property other than AMCOR and no person, firm or corporation is entitled to any royalty or any other payment in the nature of rent or royalty on any mineral products removed from the Property;
- (g) the Claims are not subject to any mining royalties imposed by the State of Idaho or the State of Montana, or any federal, municipal or local authority;
- (h) except for the Purchase Option Agreement and the Mining Lease, there are no outstanding agreements or options to acquire the Claims or any portion or interest thereof, and no person, firm or corporation, other than AMCOR and NALLC, has any proprietary or possessory interest in the Claims;
- (i) NALLC's ownership of the Claims is in compliance with, is not in default or violation in any material respect, under and neither AMCOR nor NALLC have been charged with or received any notice at any time of any material violation of any statute, law, ordinance, regulation, rule, decree or other applicable regulation in connection with NALLC's ownership of the Claims;
- (j) AMCOR and NALLC are not aware of any material facts relating to the Property that, if known to Archean Star, could reasonably be expected to cause Archean Star to decide to not enter into this Agreement or not proceed with the exercise of the Option and AMCOR and NALLC have advised Archean Star of all of the material information currently available to AMCOR and NALLC relating to the mineral potential of the Claims of which it has knowledge;
- (k) no filing or registration with, no notice to and no permit, authorization, consent or approval of any public or governmental body or authority or other person or entity is necessary for the exercise of the Option contemplated by this Agreement or to enable Archean Star to acquire an 80% Leasehold Interest in the Claims upon the exercise of the Option;

- (l) there are no adverse claims or challenges to AMCOR's or NALLC's interest in the Mining Lease or the Property;
- (m) to the best of AMCOR's and NALLC's knowledge, there has been no known spill, discharge, deposit, leak, emission or other release of any contaminant, pollutant, dangerous or toxic substance, or hazardous waste on, into, under or affecting the Property and no such contaminant, pollutant, dangerous or toxic substance, or hazardous waste is stored in any type of container on, in or under the Property;
- (n) there are no existing or threatened actions, suits, claims or proceedings regarding the Property and there are no outstanding notices, orders, assessments, directives, rulings or other documents issued in respect of the Mining Lease or the Property by any governmental authority;
- (o) there are no existing reclamation, rehabilitation, restoration or abandonment obligations with respect to the Property;
- (p) there are no pending or ongoing actions taken by or on behalf of any native or indigenous persons pursuant to the assertion of any land claims with respect to lands included in the Property;
- (q) neither AMCOR nor NALLC nor, to the best of AMCOR's knowledge, any other party to the Mining Lease is in breach of any provision of the Mining Lease;
- (r) the Mining Lease has been duly executed and delivered by the parties thereto and constitutes a legally valid and binding obligation of the parties thereto, enforceable against such parties; and
- (s) Schedule "B" sets forth all of payment obligations and work commitments under the Mining Lease.

2.3 Archean Star hereby represents and warrants that as and from the Option Date, as defined in Section 3.2 below, it shall assume each and every obligation of AMCOR in relation to the Mining Lease.

2.4 Each Party's representations and warranties set out above will be relied on by the other Parties in entering into the Agreement and shall survive the execution and delivery of the Agreement. Each Party shall indemnify and hold harmless the other Parties for any loss, cost, expense, claim or damage, including legal fees and disbursements, suffered or incurred by the other Party at any time as a result of any misrepresentation or breach of warranty arising under the Agreement.

3. OPTION

3.1 Subject to the terms and conditions set out in this Agreement, AMCOR hereby grants to Archean Star the sole and exclusive right and option to acquire an 80% undivided right, title and interest in the Leasehold Interest.

3.2 The Option shall be subject to the approval of the board of directors of Archean Star and the acceptance of the Exchange, which shall be obtained by Archean Star on or before March 31, 2013. The effective date of the Option shall be the date that is five (5) business days following the date of Exchange acceptance (the "Option Date").

3.3 In order to exercise the Option, Archean Star shall pay an aggregate of US\$25,000 to AMCOR, issue an aggregate of 3,000,000 common shares to AMCOR and incur not less than an aggregate of US\$2,100,000 of Expenditures on the Property as follows:

- (a) on signing the Letter Agreement, Archean Star pay the sum of US\$10,000 as a non-refundable deposit to NAI, which amount has been paid;
- (b) on the Option Date Archean Star shall:
 - (i) pay NALLC a cash payment of US\$7,500;
 - (ii) pay AMCOR a cash payment of US\$7,500;
 - (iii) issue 500,000 common shares in the capital stock of Archean Star to NALLC; and
 - (iv) issue 500,000 common shares in the capital stock of Archean Star to AMCOR (or such other such name as may be directed by AMCOR);
- (c) on the second anniversary of the Option Date, Archean Star shall:
 - (i) issue 500,000 common shares in the capital stock of Archean Star to NALLC; and
 - (ii) issue 500,000 common shares in the capital stock of Archean Star to AMCOR (or such other such name as may be directed by AMCOR);
- (d) on the third anniversary of the Option Date, Archean Star shall:
 - (i) issue 500,000 common shares in the capital stock of Archean Star to NALLC; and
 - (ii) issue 500,000 common shares in the capital stock of Archean Star to AMCOR (or such other such name as may be directed by AMCOR);
- (e) on or before the first anniversary of the Option Date, Archean Star shall incur a minimum of US\$700,000 of Expenditures, which is a firm commitment;
- (f) on or before the second anniversary of the Option Date, Archean Star shall incur a further US\$700,000 of Expenditures;
- (g) on or before the third anniversary of the Option Date, Archean Star shall incur a further US\$700,000 of Expenditures; and
- (h) Archean Star shall also assume and satisfy the financial obligations and otherwise comply with the terms of the annual required expenditures provision contained in Article 7 of the Mining Lease and the advance royalty payment provision contained in Article 8 of the Mining Lease.

3.4 Upon the exercise of the Option in accordance with the terms of this Agreement, Archean Star will have exercised the Option and have acquired an undivided 80% Leasehold Interest pursuant to this Agreement and NALLC shall promptly prepare and deliver to Archean Star a registrable transfer

document confirming that Archean Star holds an 80% Leasehold Interest and AMCOR holds a 20% Leasehold Interest, respectively, in the Mining Lease.

3.5 Each of the payment and common share issuance obligations set forth in Section 3.3 may be accelerated by Archean Star in order to accelerate Archean Star's exercise of the Option, but if Archean Star fails to meet any such payment or Expenditure obligation when due, the Option will terminate, subject to AMCOR providing Notice of default to Archean Star and Archean Star failing to cure said default pursuant to Section 10.1.

3.6 Expenditures incurred by any date in excess of the amount of Expenditures required to be incurred by such date shall be carried forward to the succeeding period and qualify as Expenditures for the succeeding period. If Expenditures incurred by any date are less than the amount of Expenditures required to be incurred by such date, Archean Star may pay the deficiency to or at the direction of AMCOR in cash within sixty (60) days after such date, in order to maintain the Option in good standing. Such payments of cash in lieu of Expenditures shall be deemed to be Expenditures incurred on the Property on or before such date. For greater certainty, if Expenditures incurred by any date are more than the amount of Expenditures required to be incurred by such date, Archean Star may credit such Expenditures to the next Expenditure period as outlined in Section 3.3.

3.7 The Parties agree that the share issuances by Archean Star, as set out in Sections 3.3(b)(iii), 3.3(b)(iv), 3.3(c) and 3.3(d) herein shall satisfy in full any and all consideration that is due to NALLC and/or AMCOR in connection with the following:

- (a) the amendment to the Mining Lease dated December 6, 2012, which amended the terms of the Royalty Schedule contained in the table in Article 8 of the Mining Lease; and
- (b) the obligation of APD to issue certain restricted common stock in the capital of APD under the paragraph entitled "Stock Issuance" in Article 8 of the Mining Lease, as reflected in Schedule D.

3.8 Archean Star will have the right to terminate this Agreement at any time after the Expenditure payment set out in Section 3.3(e) has been paid up to the date of exercise of the Option by giving notice in writing of such termination to AMCOR, and in the event of such termination, this Agreement will, except for the provisions of Sections 2.4, 3.12 and 6.2, be of no further force and effect save and except for any obligations of Archean Star incurred prior to the effective date of termination.

3.9 The options described in this Agreement are options only and except for the payments required in Section 3.3(a) and 3.3(e) which are obligatory, and except as specifically provided otherwise, nothing herein contained will be construed as obligating Archean Star to do any acts or make any payments hereunder except as otherwise set forth, and any act or acts or payment or payments as may otherwise be made hereunder will not be construed as obligating Archean Star to do any further act or make any further payment or payments.

3.10 Archean Star may at any time during the Option Period elect to abandon any one or more of the Claims by giving a minimum of a sixty (60) day notice in writing to AMCOR and NALLC of such intention. Any Claims so abandoned shall be in good standing under the laws of the jurisdiction in which

they are situated for at least one year from the date of abandonment. Upon any such abandonment, the Claims so abandoned shall for all purposes of this Agreement cease to form part of the Property and, if title to such Claims has been transferred to Archean Star, Archean Star shall retransfer such title to AMCOR at Archean Star's expense.

3.11 Between the date of this Agreement and the exercise of the Option, each of the Parties to this Agreement will promptly notify the other Party in writing if it becomes aware of any fact or condition that causes or constitutes a material breach of any of its representations and warranties as of the date of this Agreement, or if it becomes aware of the occurrence after the date of this Agreement of any fact or condition that would cause or constitute a material breach of any such representation or warranty had such representation or warranty been made as of the time of occurrence or discovery of such fact or condition. During the same period, each Party will promptly notify the other parties of the occurrence of any material breach of any of its covenants in this Agreement or of the occurrence of any event that may make the satisfaction of such conditions impossible or unlikely.

3.12 AMCOR hereby indemnifies and agrees to hold harmless Archean Star against any losses, claims and liabilities arising out of or in respect of AMCOR failing to maintain the Mining Lease in good standing or exercising its rights thereunder for the benefit of Archean Star in accordance with this Agreement.

3.13 The Option cash payments set out in Sections 3.3(a), 3.3(b), 3.3(e), 3.3(f), 3.3(g) and 3.3(h) are exclusive of any State or Federal taxes or other taxes that may be imposed, and in the event that any tax (or taxes) is required to be paid then the Parties agree that the Option terms shall be adjusted accordingly.

3.14 The Option is subject to the recognition of an area of mutual interest ("Area of Mutual Interest") which shall encompass that area more particularly described as Township 47 North, Range 7 East, Boise Meridian, Township 47 North Range 6 East, Boise Meridian, Township 46 North, Range 7 East, Boise Meridian, Township 46 North, Range 6 East, Sections 1 – 12, Boise Meridian, Shoshone County, Idaho and Township 18 North, Range 31 West, and the South 1/2 of Township 19 North, Range 31 West, Mineral County, Montana, shall apply as described in Article 5 of the Mining Lease. Any and all interests in mineral concessions or other mineral rights that have been, or may be acquired, directly or indirectly, by either Party, or their Affiliates, during the term of this Agreement that lie within the Area of Mutual Interest shall be included in the Property and subject to the terms of this Agreement.

4. COVENANTS OF AMCOR

4.1 During the currency of this Agreement, AMCOR covenants to:

- (a) not do any other act or thing which would or might in any way adversely affect the rights of Archean Star hereunder, including without limitation selling, assigning, encumbering or otherwise dealing with or affecting the Property;
- (b) make available to Archean Star and its representatives all available relevant technical data, geotechnical reports, maps, digital files and other data with respect to the Property in AMCOR's or NALLC's possession or control, including rock and soil samples, and all records and files relating to the

Property and permit Archean Star and its representatives at their own expense to take abstracts therefrom and make copies thereof;

(c) promptly provide Archean Star with any and all notices and correspondence received by AMCOR or NALLC from government agencies or other parties to the Mining Lease in respect of the Property;

(d) cooperate fully with Archean Star in obtaining any surface and other rights, permits or licences on or related to the Property as Archean Star deems desirable, provided that Archean Star shall be responsible for payment of all of the cost for services provided by AMCOR personnel at industry standard rates for such services;

(e) grant to Archean Star, its employees, agents and independent contractors, the sole and exclusive right and option to:

(i) enter upon the Property for the purpose of, and to do such prospecting, exploration, development or other mining work thereon and thereunder as Archean Star in its sole discretion may consider advisable;

(ii) bring and erect upon the Property such equipment and facilities as Archean Star may consider advisable; and

(iii) remove from the Property and dispose of material for the purpose of testing;

(f) immediately advise Archean Star by notice in writing of any default under the Mining Lease and provide Archean Star with copies of all communications relating thereto;

(g) until the earlier of the exercise of the Option or the termination of this Agreement, AMCOR will not, without the prior written consent of Archean Star, allow the Property to become subject to any claims, liens, security interests, charges and encumbrances of any nature or kind whatsoever or enter into any agreement (whether written or verbal) that may result in the creation of any such claims, liens, security interests, charges and encumbrances or otherwise restrict in any manner whatsoever the exercise of the Option by Archean Star as contemplated by the Agreement, except for any encumbrances arising from the activities of AMCOR; and

(h) do all such other acts and things as may be necessary or desirable in order to give effect to the transaction contemplated by this Agreement.

4.2 During the period of the Option, AMCOR covenants to:

(a) maintain in good standing the Claims included in the Property by the payment of fees, taxes and rentals and the performance of all other required actions in order to keep the Claims free and clear of all liens and other charges arising from AMCOR's activities thereon, except those contested in good faith by AMCOR; and

(b) perform all work on the Property in a careful and miner-like manner and in accordance with all applicable laws, regulations, orders and ordinances of any governmental authorities and with Mine Safety

and Health Administration (MSHA) and make all local, state and federal filings to hold the claims at least 30 days prior to the legal due date and provide receipts to AMCOR.

5. COVENANTS OF NALLC

5.1 During the currency of this Agreement, NALLC covenants to:

- (a) during the term of the Option, retain title to the Property and not encumber same and shall not deal with title in any manner except to record Archean Star's Option to earn an 80% Leasehold Interest in the Mining Lease, which shall be recorded on title to the Property, as maintained by the applicable mineral title registry in Idaho and Montana, respectively;
- (b) provide such documentation as may be required to ensure that the Option on the Mining Lease is properly recorded with the applicable mineral title registry in Shoshone County, Idaho and Mineral Country, Montana, together with other items and documents as may be necessary to give full force and effect to this Agreement; and
- (c) do all such other acts and things as may be necessary or desirable in order to give effect to the transaction contemplated by this Agreement.

6. COVENANTS OF ARCHEAN STAR

6.1 During the term of the Option, Archean Star covenants to:

- (a) perform AMCOR's obligations under the Mining Lease as if they were Archean Star's obligations and otherwise keep the Mining Lease in good standing;
- (b) concurrently with making any payment pursuant to the Mining Lease, advise AMCOR in writing of same; keep the Property free and clear of all Liens arising from its operations hereunder (except liens for taxes not yet due, other inchoate liens or liens contested in good faith by Archean Star) and proceed with all diligence to contest or discharge any Lien that is filed;
- (c) maintain the Property in good standing with the BLM and such other regulatory agencies by making those annual maintenance payments as required by those agencies and performances of all obligations under the Mining Lease;
- (d) permit AMCOR, or its representatives duly authorized by it in writing, at its own risk and expense, access to the Property at all reasonable times and to all records and reports, if any, prepared by Archean Star in connection with work done on or with respect to the Property, and furnish AMCOR monthly activity reports on or before the 15th of the following month in respect of the work carried out by Archean Star on the Property during the previous month;
- (e) during the implementation of sections 4.1(e)(i), 4.1(e)(ii) and 4.1(e)(iii) above, Archean Star agrees to indemnify and hold AMCOR harmless from any liability related to an accident or personal injury of any of its employees, officers, directors, agents, consultants or sub-contractors;

(f) conduct all work on or with respect to the Property in a careful and miner-like manner and in compliance with all applicable federal, provincial and local laws, rules, orders and regulations, and with Mine Safety and Health Administration (MSHA) requirements, and indemnify and save AMCOR harmless from any and all claims, suits, demands, losses and expenses including, without limitation, with respect to environmental matters, made or brought against it as a result of work done or any act or thing done or omitted to be done by Archean Star on or with respect to the Property; and

(g) return the Property intact upon termination of the Option pursuant to the terms of this Agreement.

6.2 In the event of termination of the Option for any reason other than through the exercise thereof, Archean Star will have the right (and, if requested by AMCOR within 90 days of the effective date of termination, the obligation) to remove from the Property within six months of termination of this Agreement all facilities erected, installed or brought upon the Property by or at the instance of Archean Star, failing which, the facilities shall become the property of AMCOR.

6.3 Archean Star shall do all such other acts and things as may be necessary or desirable in order to give effect to the transaction contemplated by this Agreement, including using its commercially reasonable efforts to obtain Exchange acceptance of this transaction.

7. BUY-OUT OPTION

7.1 Archean Star shall have the right to exercise the buy out clause as set out in Section 7.3 and thereby purchase a 100% interest in the Property from NALLC, and thereby terminate the Mining Lease (the “**Buy-out Option**”). Upon exercise of the Buy-out Option by Archean Star, AMCOR shall be obligated to contribute 20% of the cost of the acquisition of the Property.

7.2 If Archean Star exercises the Buyout Option on or before June 27, 2017, Archean Star (with AMCOR contributing 20% of the purchase price) shall pay the sum of US\$10,000,000 to NALLC, and NALLC shall retain a 1% NSR (as defined in Schedule “D”) in the Property. In the event that the Buy-out Option is exercised after June 27, 2017, the purchase price payable to NALLC shall be US\$15,000,000, and all other terms remain the same. Prior payments of royalties, costs, or other expenses will not be included in the Buy-out Option payment. This Buy-out Option terminates any obligations Archean Star has within the Mining Lease, except for the remaining 1% NSR.

7.3 Concurrently with the exercise of the Buy-out Option, NALLC shall transfer title to the Claims which comprise the Property to Archean Star, or its nominee, free and clear of all encumbrances, except those encumbrances, if any, resulting from the activities of Archean Star.

8. THE JOINT VENTURE

8.1 If Archean Star exercises the Option as set out in Section 3, then, as of the exercise date of the Option, AMCOR shall receive a 20% carried Interest in the Mining Lease until such time as the earlier of:

(a) a NI 43-101 compliant Feasibility Study has been prepared on the Property for Archean Star; or

(b) Archean Star has notified AMCOR in writing of its decision to proceed with Mining of the Property (a “**Decision to Mine**”),

has occurred, at which time (the “**JV Formation Date**”) a Joint Venture shall automatically be deemed to be formed between Archean Star and AMCOR in accordance with the terms set out in Schedule "C", whereby AMCOR shall hold a 20% Joint Venture Interest and Archean Star shall hold an 80% Joint Venture Interest, in and to the Mining Lease, and all Expenditures from the date of the formation of the Joint Venture shall be apportioned between the parties as to their percentage interest. The Mining Lease shall thereupon become a Joint Venture Asset.

8.2 Expenditures, if any, in excess of those required to maintain the Option in good standing which have been committed or incurred by Archean Star at the JV Formation Date will be carried forward and credited to Archean Star’s contribution to Joint Venture programs under the Joint Venture.

9. CONFIDENTIALITY

9.1 All matters concerning the execution and contents of this Agreement, the Joint Venture, and the Property shall be treated as and kept confidential by the Parties and there shall be no public release of any information concerning the Property without the prior written consent of the other Party, such consent not to be unreasonably withheld; except as required by applicable securities laws, the rules of any stock exchange on which a Party’s shares are listed or other applicable laws or regulations. Notwithstanding the foregoing the Parties are entitled to disclose confidential information to prospective investors or lenders, who shall be required to keep all such confidential information confidential.

9.2 Each Party shall provide the other with a copy of any news release it proposes to publish relating to the Property or this Agreement prior to publication of the same for the other Party's review which shall not be unreasonably delayed in view of any timely disclosure obligations which may be applicable. Each Party shall use its reasonable efforts to provide any comments it may have to the other Party forthwith, but in any event within one business day.

10. RIGHT OF FIRST REFUSAL

10.1 In the event that either party wishes to sell any or all of its interest in the Leasehold Interest or the Joint Venture (the “**Offeror**”), the Offeror shall first give the other party (the “**Offeree**”) notice in writing containing an offer to sell to it such interest specifying the price in dollars and other terms and conditions for such sale. If within a period of 60 days of the receipt of such notice the Offeree notifies the Offeror in writing that it wishes to accept the offer, the Offeror shall be bound to sell such interest to the Offeree at such price and on the terms and conditions contained in the offer. If the Offeree elects not to accept the offer or fails to notify the Offeror before the expiration of the time herein limited that it will purchase the interest offered, the Offeror may sell and transfer such interest to any third party or parties, at the price, terms and conditions specified in the offer for a period of four months following the date of the Offeree's election not to accept the offer or expiry of the 60-day period, whichever occurs earlier, after which such interest shall again be subject to this Section 10.1. The right of the Offeree under this Section 10 shall continue while the Option remain in good standing, failing which the right shall terminate.

11. TERMINATION

11.1 Subject to Section 3.8, in addition to any other termination provisions contained in this Agreement, this Agreement and the Option can be terminated by AMCOR if Archean Star should be in default in performing any requirement herein set forth in a timely manner and has failed to take reasonable steps to cure such default within 30 days after the giving of a written notice of such default by AMCOR.

11.2 Upon completion of a minimum expenditure of US\$700,000, Archean Star may terminate the Option Agreement at any time thereafter during the Option period and in accordance with Article 18 and Article 19 of the Mining Lease. In the event that Archean Star makes a decision to terminate the Option, as contemplated in Article 18 of the Mining Lease, prior to completion of the Option, Archean Star must first notify AMCOR, at which time AMCOR has the right to take over the Mining Lease at its sole discretion.

12. ARBITRATION

12.1 If any question, difference or dispute shall arise between the Parties or any of them in respect of any matter arising under this Agreement or in relation to the construction hereof the same shall be determined by the award of one arbitrator to be named as follows:

- (a) the Party or Parties sharing one side of the dispute shall name a representative to select an arbitrator and give notice thereof to the Party or Parties sharing the other side of the dispute;
- (b) the Party or Parties sharing the other side of the dispute shall, within 14 days of receipt of the notice, name a representative to select an arbitrator; and
- (c) the two representatives so named shall, within 30 days of the naming of the latter of them, select a third person who shall act as arbitrator.

The decision of the arbitrator shall be made within 60 days after selection. The expense of the arbitration shall be borne equally by the parties to the dispute. If the Parties on either side of the dispute fail to name their representative within the time limited or fail to proceed with the arbitration, reference for appointment of an arbitrator shall be made to the British Columbia International Arbitration Centre. The arbitration shall be conducted in accordance with the provisions of the *Commercial Arbitration Act* (British Columbia), and the decision of the arbitrator shall be conclusive and binding upon all the Parties.

13. OPERATOR

13.1 Until a Joint Venture is formed under Section 8 or alternatively, termination of the Option and this Agreement shall have occurred under Section 11 hereof:

- (a) Archean Star shall be the operator of the Property (the "**Operator**"); and
- (b) The Operator shall be responsible for making the Expenditures to be incurred by Archean Star under the terms of this Agreement, for complying with all applicable laws and regulations with respect to its operations on the Property, for making all filings and doing all other things necessary to maintain the

mineral claims comprising the Property in good standing, for securing and complying with all work permits and for performance of any reclamation required on the Property in respect of its operations.

14. CONDITIONS PRECEDENT

14.1 The obligations of Archean Star under this Agreement are subject to the fulfillment prior to the Option Date of the following conditions precedent for the exclusive benefit of Archean Star:

- (a) the representations and warranties of all Parties made in this Agreement shall be true and correct in all material aspects as at the Option Date;
- (b) completion of a review by Archean Star of title to the Property to the satisfaction of Archean Star;
- (c) Archean Star has obtained Exchange acceptance for this transaction;
- (d) any approval or consent of any applicable government entities as required for this transaction shall have been obtained;
- (e) AMCOR furnishing to Archean Star all technical data with respect to the Property within 10 days of the Option Date and Archean Star completing a review of such data to its satisfaction;
- (f) Archean Star completing a review of the amended Mining Lease and amended Purchase Option Agreement to its satisfaction;
- (g) except as set forth in the Mining Lease and the Purchase Option Agreement, there shall be no other issued and outstanding option to the Mining Lease and no person shall have the right, agreement, warrant, option or commitment, present or future, contingent or absolute, or anything capable for becoming a right, agreement or option with the passage of time or occurrence of any event or otherwise for any interest in and to the Mining Lease; and
- (h) all requisite approval by the Board of Directors of each of AMCOR and Archean Star.

15. SECURITIES LAWS

15.1 The Parties hereto acknowledge that the issuance of the common shares by Archean Star to AMCOR and NALLC, or such other Party as directed by AMCOR, as contemplated by Section 3.3 herein will be made pursuant to an exemption from the registration and prospectus requirements of applicable securities laws of Canada and the United States of America and such share certificates shall bear restrictive legends and will be subject to resale restrictions, as prescribed by applicable securities laws.

16. GENERAL

16.1 Neither Party may assign this Agreement or any rights hereunder in the Property without the prior written consent of the other, such consent not to be unreasonably withheld. Notwithstanding this Section 16.1, a Party may assign, without prior written consent, this Agreement to an Affiliate or associate (as that term is defined in the *Business Corporations Act* (British Columbia)) by delivering notice to that effect to the other Party provided that such Affiliate or associate first signs an agreement, in form and substance

acceptable to the other Party, agreeing to be bound by the terms of this Agreement. For greater certainty, nothing herein shall prevent any party from entering into any corporate reorganization, merger, amalgamation, take-over bid, plan of arrangement, or any other such corporate transaction which has the effect of, directly or indirectly, selling, assigning, transferring, or otherwise disposing of all or a part of the rights under this Agreement to a purchaser.

16.2 This Agreement inures to the benefit of and binds the Parties and their respective successors and permitted assigns.

16.3 This Agreement supersedes the Letter Agreement.

16.4 Each Party shall from time to time promptly execute and deliver all further documents and take all further action reasonably necessary or desirable to give effect to the terms and intent of this Agreement including executing additional documents and entering into amendments to related agreements.

16.5 No waiver of any term of this Agreement by a Party is binding unless such waiver is in writing and signed by the Party entitled to grant such waiver. No failure to exercise, and no delay in exercising, any right or remedy under this Agreement shall be deemed to be a waiver of that right or remedy. No waiver of any breach of any term of this Agreement shall be deemed to be a waiver of any subsequent breach of that term.

16.6 No amendment, supplement or restatement of any term of this Agreement is binding unless it is in writing and signed by both Parties.

16.7 Notwithstanding any term in this Agreement, if a Party is at any time delayed from carrying out any action under this Agreement due to circumstances beyond the reasonable control of such Party (aside from circumstances arising from the financial difficulty of such Party), acting diligently, the period of any such delay shall be excluded in computing, and shall extend, the time within which such Party may exercise its rights and/or perform its obligations under this Agreement.

16.8 Each of the Parties hereto covenants, agrees and acknowledges that each of them was fully and plainly instructed to seek and obtain independent legal and tax advice regarding the terms and conditions and execution of this Agreement and each of them has sought and obtained such legal and tax advice and acknowledges that each has executed this Agreement voluntarily understanding the nature and effect of this Agreement after receiving such advice.

16.9 The Parties shall bear their own legal costs in connection with this Agreement.

16.10 All references to monies in this Agreement shall be in U.S. funds.

16.11 Any notice or other communication required or permitted to be given under this Agreement must be in writing and shall be effectively given if delivered personally or by overnight courier or if sent by fax or electronic transmission, addressed in the case of notice to AMCOR or Archean Star, as the case may be, to its address set out on the first page of this Agreement. Any notice or other communication so given is deemed conclusively to have been given and received on the day of delivery when so personally delivered, on the day following the sending thereof by overnight courier, and on the same date when

faxed (unless the notice is sent after 4:00 p.m. (Vancouver time) or on a day which is not a business day, in which case the fax will be deemed to have been given and received on the next business day after transmission). Either Party may change any particulars of its name, address, contact individual or fax number for notice by notice to the other party in the manner set out in this Section 14.9. Neither Party shall prevent, hinder or delay or attempt to prevent, hinder or delay the service on that party of a notice or other communication relating to this Agreement.

[The remainder of this page is left intentionally blank]

16.12 This Agreement may be executed by facsimile, email or other electronic transmission and in any number of counterparts. Each of which shall constitute one and the same agreement.

The parties have duly executed this Agreement as of the date and year first written above.

ARCHEAN STAR RESOURCES CORP

By:

Authorized Signing Representative

NORTHERN ADVENTURES, LLC

By:

Floyd Short, Managing Member

AMERICAN CORDILLERA MINING CORPORATION

By:

Frank Blair, President

AMCOR EXPLORATION, INC.

By:

Frank Blair, President

SCHEDULE "A" - DESCRIPTION OF THE PROPERTY

<u>NAME</u>	<u>Locator</u>	<u>Shoshone County Date</u>	<u>County Record Number</u>	<u>BLM Filing Date</u>	<u>BLM Serial Number</u>
Monitor 108	Northern Adventures LLC	09/03/2012	469395	11/27/2012	IMC 211608
Monitor 109	Northern Adventures LLC	09/03/2012	469396	11/27/2012	IMC 211589
Monitor 110	Northern Adventures LLC	09/03/2012	469397	11/27/2012	IMC 211590
Monitor 111	Northern Adventures LLC	09/03/2012	469398	11/27/2012	IMC 211591
Monitor 113	Northern Adventures LLC	09/03/2012	469399	11/27/2012	IMC 211592
Monitor 126	Northern Adventures LLC	09/03/2012	469400	11/27/2012	IMC 211593
Monitor 127	Northern Adventures LLC	09/03/2012	469401	11/27/2012	IMC 211594
Monitor 128	Northern Adventures LLC	09/03/2012	469402	11/27/2012	IMC 211595
Monitor 129	Northern Adventures LLC	09/03/2012	469403	11/27/2012	IMC 211596
Monitor 130	Northern Adventures LLC	09/03/2012	469404	11/27/2012	IMC 211597
Monitor 132	Northern Adventures LLC	09/03/2012	469405	11/27/2012	IMC 211598
Monitor 134	Northern Adventures LLC	09/03/2012	469406	11/27/2012	IMC 211599
Monitor 205	Northern Adventures LLC	09/03/2012	469407	11/27/2012	IMC 211600
Monitor 207	Northern Adventures LLC	09/03/2012	469408	11/27/2012	IMC 211601
Monitor 208	Northern Adventures LLC	09/03/2012	469409	11/27/2012	IMC 211602
Monitor 209	Northern Adventures LLC	09/03/2012	469410	11/27/2012	IMC 211603
Monitor 210	Northern Adventures LLC	09/03/2012	469411	11/27/2012	IMC 211604
Monitor 211	Northern Adventures LLC	09/03/2012	469412	11/27/2012	IMC 211605
Monitor 220	Northern Adventures LLC	09/03/2012	469413	11/27/2012	IMC 211606
Monitor 222	Northern Adventures LLC	09/03/2012	469414	11/27/2012	IMC 211607

SCHEDULE "B" – PROPERTY OBLIGATIONS

Article 7 of the Mining Lease

During the first year of the primary term of the Mining Lease, AMCOR shall perform US\$50,000 of work upon, towards, or for the eventual benefit of the Property. Funds used directly to acquire additional unpatented mining claims will be attributed to the first year's work requirement. During the second and third year, an additional US\$50,000 of work upon, toward, or for the eventual benefit of the Property shall be performed. During the fourth year, and each year thereafter, AMCOR shall perform US\$100,000 of work upon, towards, or for the eventual benefit of the Property. Provided, however, in the event commercial production is commenced at any time, Article 7 of the Mining Lease requiring minimum work shall not be applicable.

The term "upon" means exploration or development work performed within the exterior vertical boundaries of the Property. The work may include, but is not limited to diamond drilling, drifting, shaft sinking, raising, rehabilitation of existing underground openings in advance of any such work, surface mapping, geochemical surveys, stratigraphic and structural investigations, metallurgical and other physical analytical work, mine engineering and geological analysis which enhances the understanding of the geology and possible mineralization of the Property, and, in addition, all unpatented claim holding costs.

The term "toward" means the kind of work described above, but performed within 1,000 feet of any exterior boundary of the Property.

In the event work is performed in excess of the required minimum amounts during any period, the excess may be carried forward to the credit of AMCOR.

SCHEDULE "C" - JOINT VENTURE TERMS

In this Schedule "C", terms and expressions given a defined meaning in the Agreement to which this Schedule "C" is attached shall have the corresponding meaning in this Schedule "C".

1. RELATIONSHIP OF PARTIES

The relationship of the Parties in the Joint Venture shall not be, and shall not be construed to be, a partnership relationship, an agency or legal representative relationship or a fiduciary relationship. Except as otherwise expressly provided in this Schedule "C", the rights, privileges, powers, duties, liabilities and obligations of the Parties shall be as joint venturers and shall be several and not joint or joint and several.

2. CALCULATION OF JOINT VENTURE INTERESTS

The following provisions shall apply until such time as the Parties have entered into the definitive Option and Joint Venture Agreement failing which the Agreement to which this Schedule "C" is attached will continue to govern the relations between them.

2.1 Initial Calculation. On the date that the Joint Venture is formed as a result of the exercise of the Option, AMCOR and Archean Star are deemed to have the following Joint Venture Interests:

AMCORArchean Star

Deemed Expenditures: \$420,000 \$2,100,000

Joint Venture Interest 20% 80%

2.2 Calculation on Ongoing Basis. Subject to Section 2.3 of this Schedule "C", AMCOR's and Archean Star's, as the case may be, Joint Venture Interest, calculated at any time and from time to time, shall be determined in accordance with the formula:

$$A = \frac{B \times 100\%}{C}$$

where

- (a) A is AMCOR's or Archean Star's, as the case may be, Joint Venture Interest;
- (b) B is an amount equal to AMCOR's or Archean Star's, as the case may be, deemed Expenditures under Section 2.1 of this Schedule "C", plus all of AMCOR's or Archean Star's, as the case may be, Expenditures made after the formation of the Joint Venture; and
- (c) C is an amount equal to the Parties' total deemed Expenditures under Section 2.1 of this Schedule "C" plus all of the Parties' Expenditures made after the formation of the Joint Venture.

For greater certainty, for the purposes of the dilution calculation, AMCOR shall be deemed to receive credit for Expenditures incurred by Archean Star during the period from the date of exercise of the Option until the JV Formation Date. For example, if Archean Star has incurred Expenditures totaling US\$20,000,000 as at the JV Formation Date, then AMCOR shall be deemed to have incurred US\$5,000,000 of Expenditures.

2.3 Conversion of Joint Venture Interest. If AMCOR's or Archean Star's Joint Venture Interest is reduced to 10% or less, then AMCOR's or Archean Star's, as the case may be, Joint Venture Interest shall be converted to a 1% Net Smelter Returns royalty, as provided for in Schedule "F" to the Agreement, which shall be reduced by the amount of any underlying royalty payable on the Property. The Joint Venture shall terminate upon such conversion, and the surviving Party shall become the sole owner of a 100% interest in the Property subject to the Net Smelter Returns royalty and any other royalties under the Mining Lease. The surviving party shall have a right of first refusal to match any third party offer to purchase the royalty.

3. MANAGEMENT COMMITTEE

3.1 Establishment. Promptly upon the formation of the Joint Venture, the Parties shall establish the Management Committee. One Representative and one alternate shall be appointed in writing by each Party and re-appointed from time to time.

3.2 Powers and Obligations. Except as expressly provided otherwise in this Agreement, the Management Committee is empowered to make all strategic and planning decisions regarding the Joint Venture. Accordingly, the Management Committee is responsible for revising Programs submitted by the Operator, for approving all Programs and for evaluating the results of all Programs.

3.3 Calling of Meetings. Meetings of the Management Committee shall be held in Vancouver, British Columbia at such place, time and date as may be determined by the Operator or the non-Operator on at least 15 days' notice. The Representatives may waive the notice period required for any meeting. Any notice must include the time, date, place and agenda of each meeting. On receipt of any such notice, the receiving Party may add any item to the agenda, if the receiving Party notifies the other Party of the addition at least 7 days before the meeting. No item which is not on the agenda may be discussed without the consent of the Representatives. Individuals other than the Representatives may attend meetings of the Management Committee with the unanimous consent of the Representatives.

3.4 Attendance at Meeting by Phone. Any Representative may attend a meeting of the Management Committee by telephone or video conference call.

3.5 Quorum at Meetings. The quorum for any meeting of the Management Committee is one Representative from each of the Parties. If a quorum is not present at the date, time and place set for a meeting, then the meeting shall be adjourned to the same place and time on the same day of the following week. At the continuation of the adjourned meeting the Management Committee may conduct business, if a notice regarding the continuation of the adjourned meeting was sent to the Party

whose Representative did not attend the meeting as originally scheduled. In no other circumstance may business be transacted at a meeting of the Management Committee without a quorum being present.

3.6 Chairman and Secretary of Meetings. The initial chairman of the Management Committee (the "**Chairman**") shall be determined by Archean Star and thereafter designated annually by the Party with the greater Joint Venture Interest. The Chairman shall appoint a secretary to act as a secretary of the Management Committee at the beginning of each meeting of the Management Committee. Such secretary shall carry out the duties of the secretary of the Management Committee until such secretary's replacement is appointed. The secretary shall prepare and maintain minutes of each meeting of the Management Committee. The secretary shall distribute to the Representatives such minutes, as soon as practicable following each meeting. The secretary shall also maintain, and distribute to the Representatives, copies of all correspondence and instruments received, sent or signed by the Management Committee or the Representatives (when acting in the capacity of a Representative).

3.7 Making Decisions. All decisions of the Management Committee shall be by majority vote by the two voting Representatives, who shall each have the number of votes equal to such Representative's respective Party's Joint Venture Interest from time to time. In the event of an equality of votes, the Operator's Representative shall have an additional and casting vote. Alternatively, the Management Committee may transact any business by a written instrument signed by a Representative of each Party. Each decision of the Management Committee shall be final and binding on the Parties.

3.8 Consent of Management Committee Required. Notwithstanding any term in this Agreement, the Operator shall not take any of the following actions without obtaining the prior written consent of Parties holding at least a 60% Joint Venture Interest:

- (a) create, or permit to remain, any material Liens, upon any Joint Venture Asset, except for any Liens which are customary in the circumstances of an mining joint venture;
- (b) settle any suit, claim or demand with respect to the Joint Venture involving an amount in excess of \$100,000; or
- (c) abandon, sell or otherwise dispose of a Joint Venture Asset having a net book value greater than \$100,000 or, if related to normal business operations, a net book value greater than \$250,000.

The Operator shall not abandon, sell or otherwise dispose of the Property, or any material part thereof without obtaining the prior written consent of Parties holding 100% of the Joint Venture Interests.

T4. HE OPERATOR, ITS POWERS AND OBLIGATIONS

4.1 Initial Operator. Upon the formation of the Joint Venture, Archean Star shall be the first Operator.

4.2 Resignation and Replacement. The Operator may resign as Operator upon notifying the non-Operator in writing of its resignation at any time after a Program has been approved by the

Management Committee but before the commencement of the implementation of such Program, or at any time if no Program is being carried out at that time. The Operator shall be deemed to have resigned if:

- (a) the Operator materially defaults in its obligations as operator hereunder and fails to commence and diligently prosecute measures to remedy such default within 30 days after the non-Operator shall have given written notice to the Operator of such default specifying in such notice the nature of the default;
- (b) the Joint Venture Interest of the Operator becomes less than 50%; or
- (c) pursuant to Section 6.1 of this Schedule "C", during the period of the Second Option, the Operator fails to submit a Program requiring minimum Expenditures of at least \$100,000 to the Management Committee within six months of the completion of the previous Program and the non-Operator commits to such Program and the Expenditures required therein.
- (d) pursuant to Section 6.1 of this Schedule "C", Archean Star, the Operator fails to submit a Program requiring minimum Expenditures of at least \$1,000,000 in each calendar year thereafter to the Management Committee within six months of the completion of the previous Program and the non-Operator commits to such Program and the Expenditures required therein. In the event of the occurrence of (c) or (d) above, the Party that was previously the non-Operator shall have the right within a period of 90 days of the occurrence of such event to prepare and deliver to the Management Committee a Program requiring minimum Expenditures outlined in (c) or (d) above and the provisions of this Section 4.2 and Section 7 of this Schedule "C" shall for all purposes of this Schedule "C" apply mutatis mutandis as if for such Program the non-Operator was the Operator, provided further that notwithstanding the foregoing, Archean Star so long as it retains at least a 50% interest in the Joint Venture, shall continue to have the right to retain its position as Operator in accordance with this Section 4.2 following completion of a Program by the non-Operator.

On any change or replacement of the Operator, the retiring Operator shall transfer all data, documents, reports, records, accounts, samples and assays in its possession or control, and relating to the Mining Operations or the Property, to the incoming Operator.

4.3 Powers and Obligations. Subject to the approval of each Program by the Management Committee and to funds being advanced by the Parties who have elected to contribute to such Program, the powers and obligations of the Operator shall be as follows:

- (a) to manage the Joint Venture and conduct, or cause to be conducted, all work performed under a Program in a careful and miner-like manner in accordance with good exploration, engineering and mining practice and in accordance with the terms of this Agreement;

- (b) to submit each Program to the Management Committee for approval by delivering the Program to the Representatives at least 30 days in advance of the meeting of the Management Committee at which such Program is to be considered;
- (c) subject to Section 3.8 of this Schedule "C", to keep the Property in good standing and to pay all applicable payments, fees and taxes, and other similar governmental charges lawfully levied or assessed in respect of the Property, except that the Operator shall not be obliged, however, to make any such payment as long as such payment is being contested in good faith and the non-payment thereof does not adversely affect the Property;
- (d) subject to Sections 8, 9 and 10 of this Schedule "C", to provide, purchase, lease or rent all plant, buildings, machinery, equipment, tools, appliances, materials, supplies and services required for a Program and to dispose of the same when no longer required or useful for the purposes of the Property and the Joint Venture;
- (e) to maintain and keep the Joint Venture Assets, or to cause the Joint Venture Assets to be maintained and kept, in good operating condition and repair in accordance with good exploration and mining practice;
- (f) to open and maintain a bank account for the Joint Venture for Expenditures incurred and revenue received in connection with the Property.
- (g) to comply with all applicable statutes, regulations, by-laws, laws, orders and judgments and all directives, rules, consents, permits, orders, guidelines, approvals and policies of any applicable governmental authority affecting the Joint Venture;
- (h) to obtain and maintain such types and levels of property and liability insurance with respect to the Joint Venture as the Operator shall consider necessary from time to time, such coverage to include the non-Operator as a named insured to the extent of the non-Operator's undivided interest in the Joint Venture from time to time;
- (i) to require the Operator's contractors and subcontractors to take out and maintain such types and levels of property and liability insurance as the Operator shall consider necessary or advisable from time to time and to comply with the requirements of all applicable unemployment insurance and workers' compensation legislation, and with Mine Safety and Health Administration (MSHA) requirements with respect to work or services to be provided by such contractors or subcontractors;
- (j) to advise the non-Operator of any accident or occurrence resulting in any material damage to or destruction of any Joint Venture Assets or material harm or injury to any individual;
- (k) to keep adequate data, information and records of the Operator's management of the Joint Venture and to keep suitable accounts which reflect all financial aspects of the Joint Venture and once

per year to make such available to the non-Operator, at the place designated by the Operator, within ten days of receipt of a written request for disclosure by the non-Operator;

- (l) to provide the non-Operator with monthly reports on activities on the Property during periods of active field work or when mine operations are active, quarterly reports and a detailed annual report on the Operator's management of the Joint Venture, including an accounting of all Expenditures made by the Operator under the current or previous Program;
- (m) to permit the non-Operator, at the non-Operator's sole risk and expense and with prior notice to the Operator, access to the Property during normal working hours for the purpose of examining activities and work thereon so long as such access shall not materially interfere with or impair such activities and work;
- (n) to have all powers necessary to carry out, or cause to be carried out, all of the Operator's obligations set out in this Agreement and to otherwise carry out, or cause to be carried out, all Programs approved by the Management Committee; and

5. ESTABLISHMENT OF OPCO

The Operator may, at any time, establish an operating company, as a wholly-owned subsidiary ("**Opco**"), to hire the labour and contractors necessary to construct and operate the mine subject to the Operator being responsible for the performance and obligations of Opco. The Operator may delegate those of its obligations and, to the extent necessary, rights hereunder, to Opco necessary for Opco to carry out its objectives, subject to withdrawal of that delegation at any time by Notice in writing from Operator to Opco. As Opco's assumption of specific duties regarding mine construction and operation will obviate the need for the Operator to perform some or all of the work, the Operator will, in good faith, review and, if appropriate, adjust the Operator's charge under Section 6.1(b) of this Schedule "C".

6. REIMBURSEMENT OF OPERATOR

6.1 **Costs.** The Operator shall be reimbursed by the joint venture participants for any Costs it incurs in carrying out approved exploration programs, capital plans and mine operating plans or otherwise carrying out its duties as Operator. "**Costs**" means

- (a) all costs, payments, expenses, charges and outlays, direct and indirect, made or incurred by the Operator on or in respect of the Claims after commencement of this joint venture including taxes, duties and imposts; and
- (b) administrative services, head office overhead and use of the Operator's corporate infrastructure shall not be charged directly in Section 6.1. Rather, the Operator shall be entitled to an Operator's fee on the Costs contemplated in Section 6.1 of:
 - (i) 12% of Costs incurred prior to a Decision to Mine; and

- (ii) 3% on Costs incurred after the date of the Decision to Mine;

subject in each case to review and adjustment, if any, under The fee has been established on the basis that the party acting as Operator shall not profit nor suffer a loss by virtue of providing these services. The fee shall not be subject to audit but may be reviewed, in good faith, by the parties from time to time, at the instance of either party.

6.2 Emergencies. In an emergency, the Operator, without the consent of the non-Operator, may take such immediate actions and make such immediate Expenditures as the Operator deems necessary to keep the Property in good standing or for the protection of individuals and/or property. The Operator shall promptly report such emergency actions and Expenditures to the non-Operator by delivering an invoice to the non-Operator. The non-Operator shall pay its share of the Expenditures to the Operator in accordance with Section 7.4 of this Schedule "C".

6.3 Contingency Fund. The Operator may establish and administer a contingency fund to be applied by the Operator to satisfy any legal obligations of the Parties respecting a mine maintenance plan or mine closure plan, including obligations for severance pay, pensions, rehabilitation and reclamation work. Each Party shall contribute its proportionate share of such fund based on such Party's Joint Venture Interest at the time of the establishment of the fund (or at the time of the contribution, in respect of subsequent contributions). The Operator shall invest any unused portion of such fund and all income thereon shall accrue in such fund. If the Operator determines that such fund, or any portion thereof, is no longer necessary, the Operator shall make payments to the Parties in proportion to their contribution to such contingency fund on the date of such payments.

7. PROGRAMS

7.1 Contents of Program. The Operator shall prepare a Program and submit such Program budget to the Management Committee for approval at least 30 days before the beginning of each calendar year. The Management Committee must approve each Program prior to implementation. Each Program shall cover a period of up to 12 months or such other period as the Parties may agree. Each Program must contain:

- (a) a reasonably detailed outline of all work which the Operator contemplates carrying out on the Property under such Program detailing the areas on the Property to be subject to such work and the time frame for each of the major elements of such work;
- (b) a reasonably itemized budget, broken down by month, of the projected Expenditures under the Program; and
- (c) the estimated amount and date of each payment that the non-Operator would have to make to the Operator.

7.2 Election by Representatives. If the Operator proposes a Program which is approved by the Management Committee:

- (a) for \$1,000,000 or lesser amounts, the Representatives shall then have 60 days to elect whether or not to participate in the Program; or
- (b) for more than \$1,000,000, the Representatives shall then have 90 days to elect whether or not to participate in the Program.

7.3 Approved Programs. The Operator shall carry out each Program approved by the Management Committee provided the Parties who have elected to contribute to such Program provide the Operator with their proportionate share of the funding in respect of the Program.

7.4 Payments to Operator. If a Representative elects to participate in a Program on behalf of a Party, the Operator will submit an invoice to such Representative on or between the first and 15th day of the month immediately preceding a month in which Expenditures are to be made under a Program. The invoice must set out the estimated Expenditures under the Program for the immediately following month, multiplied by the Joint Venture Interest of such Party. Within 30 days of receipt of such invoice, such Party shall pay the Operator the invoice amount. The Operator may also submit other invoices relating to reconciliations, bills, accounts or other requests for payment in respect of any Expenditures made by the Operator under a Program or otherwise in accordance with this Agreement. Such invoice must set out the total amount involved, multiplied by the participating Party's Joint Venture Interest. Within 30 days of receipt of such invoice, such Party shall pay the Operator the invoice amount. If such Party fails to make any payment to the Operator under this Section 7.4 of this Schedule "C" within any applicable 30 day payment period, after previously having elected to do so, such Party shall make such payment together with an interest payment, calculated at the rate equal to the annual rate of interest announced from time to time by the Bank of Montreal as its reference rate then in effect for determining interest rates on Canadian dollar commercial loans in Canada (commonly known as its prime rate), plus 5%, for the period commencing on the expiry of such 30 day payment period and terminating on the date that full payment is made. If such Party fails to make full payment, including in respect of interest, to the Operator within 60 days of the expiry of the applicable 30 day payment period, Section 7.6 of this Schedule "C" applies.

7.5 Failure to Participate. Subject to Sections 7.7 and 7.8 of this Schedule "C", if a Party does not elect to participate in a Program, its Joint Venture Interest shall be diluted with respect to Expenditures made in respect of such Program in accordance with Section 2.2 of this Schedule "C".

7.6 Failure to Make Payment by non-Operator. Subject to Sections 7.7 and 7.8 of this Schedule "C", if a Party which has elected to participate in a Program fails to make a required payment within the 60 day period referred to in Section 7.4 of this Schedule "C", such Party's Joint Venture Interest shall be diluted with respect to Expenditures made in respect of such Program at a rate of two times normal dilution.

7.7 Failure to Spend at Least 80% of Budget. If a Party does not elect to participate in a Program and the Operator does not make Expenditures under the Program at least equal to 80% of budgeted Expenditures, the non-participating Party shall not have its Joint Venture Interest reduced in accordance with Section 2.2 of this Schedule "C" if the non-participating Party pays the Operator within 60 days, following the completion of such Program, an amount equal to the total Expenditures made under such Program, multiplied by the non-participating Party's Joint Venture Interest, determined at the commencement of such Program.

7.8 Expenditures More Than 10% Above Budget. Expenditures made by the Operator exceeding the Expenditures contemplated by the Program by less than 10% will be funded by the Parties in proportion to their Joint Venture Interests. Expenditures made by the Operator exceeding the Expenditures contemplated by the Program by more than 10% will be funded solely by the Operator, unless otherwise agreed by the Parties in writing. Unless otherwise agreed by the Parties in writing, any such payments exceeding the Expenditures contemplated by the Program by more than 10% which are made by either the Operator or the non-Operator will not form part of the calculations used to determine the Joint Venture Interests of the Parties in accordance with Section 2.2 of this Schedule "C".

7.9 Return of Surplus Monies. If, after completion of any Program, the Operator is in possession of any moneys contributed by the Parties and which are not required for the discharge of obligations relating to such Program, the Operator shall repay such moneys to the contributing Parties.

7.10 Failure to Submit Program to Management Committee. If the Operator does not submit a Program involving Expenditures of at least \$100,000 to the Management Committee for approval within a period of at least six months from the date of completion of the last Program (being when the report is complete and delivered to the non-Operator), then the non-Operator may propose a Program to the Management Committee for an amount not less than \$100,000. If the non-Operator makes such a proposal and the Program is approved by the Management Committee, the Operator shall carry out such Program and fund its proportionate share. If the Management Committee does not approve such Program, the non-Operator may, notwithstanding Section 4.2 of this Schedule "C", become the Operator and carry out the Program. Following the completion of such Program Section 4.2 of this Schedule "C" shall apply once again.

8. DEALINGS WITH AFFILIATES

Any Joint Venture Assets that the Operator may purchase, lease or rent from an Affiliate shall be purchased, leased or rented at fair market value. The cost of all work which the Operator may contract to an Affiliate shall be equal to the fair market value of such work. Any Joint Venture Assets that the Operator may sell or otherwise dispose of to an Affiliate shall be sold or otherwise disposed of at fair market value. The Operator shall pay the net proceeds received in respect of such Joint Venture Assets, if any, to the Parties in proportion to their respective Joint Venture Interests. The Operator shall give the non-Operator written notice of any transaction with an Affiliate and the non-Operator may, at any

time within 12 months after it has received such notice, dispute whether such transaction was at fair market value.

9. USE OF SURPLUS JOINT VENTURE ASSETS

Subject to Section 5.4 of this Schedule "C", the Operator may use any Joint Venture Assets which are no longer required for the Joint Venture for such other purposes and on such terms as the Operator may from time to time determine. The Operator shall pay the net proceeds received in respect of such Joint Venture Assets, if any, to the Parties in proportion to their respective Joint Venture Interests. If such surplus Joint Venture Assets are used by the Operator, outside the scope of the Joint Venture, or are used by an Affiliate of the Operator, outside the scope of the Joint Venture, then the net proceeds in respect of such use shall be deemed to be an amount equal to what could be obtained from an arms-length third party.

10. DISPOSITION OF SURPLUS JOINT VENTURE ASSETS

Subject to Section 3.8 and 6.4 of this Schedule "C", the Operator shall provide quarterly interim financial statements and annual audited financial statements to the Joint Venture parties in accordance with National Instrument 51-102. If it is established from the financial statements that there is a distributable profit, or Joint Venture Assets as are no longer required for Joint Venture operations, the Operator shall report this to the Management Committee who can then determine whether, subject to Section 17, to sell or otherwise dispose of such part of the Joint Venture Assets that are no longer required for Joint Venture Operations. The Operator shall pay the Net Proceeds (as calculated in Schedule "G" to this Agreement) received in respect of such Joint Venture Assets, if any, to the Parties in proportion to their respective Joint Venture Interests, within 30 days of the sale and receipt of the Net Proceeds.

11. INSURANCE PROCEEDS

The Operator shall apply, to the extent determined by the Operator, any insurance proceeds received by the Operator in respect of any loss or damage to Joint Venture Assets towards the repair or replacement of the lost or damaged Joint Venture Assets. The Operator shall pay the remaining proceeds received in respect of such Joint Venture Assets, if any, to the Parties in proportion to their respective Joint Venture Interests.

12. SETTLEMENT PAYMENTS

Subject to Section 3.8(c) of this Schedule "C", all losses, costs, expenses, claims or damages, including legal fees and disbursements, net of any insurance proceeds, incurred and paid by the Operator in settlement of any loss, cost, expense, claim, damage, judgment or similar matter (including a payment made, or an action taken, by the Operator as a result of an action of a governmental agency) shall constitute an Expenditure made by the Operator under the applicable Program. In addition, the non-Operator, in proportion to its Joint Venture Interest calculated on the date that the initial liability was incurred which gives rise to this indemnification obligation, shall indemnify and hold harmless the Operator for any loss, cost, expense, claim or damage, including legal fees and disbursements, suffered

or incurred by the Operator in respect of a third party claim (including an action of a governmental agency which results in a payment made, or an action taken, by the Operator), except to the extent that such claim arose from the gross negligence or willful misconduct of the Operator.

13. LIABILITY OF OPERATOR

The Operator shall not be liable to the non-Operator for any loss, cost, expense, claim or damage, including legal fees and disbursements, (including a payment made, or an action taken, by the Operator as a result of an action of a governmental agency) except to the extent that such loss, cost, expense, claim or damage is attributable to the gross negligence or willful misconduct of the Operator. In no event (including fundamental breach) shall the Operator be liable to the non-Operator for any indirect, special or consequential damages (including for loss of goodwill, loss of actual or anticipated profits or other economic loss), even if the Operator has been advised of the potential for such damages.

14. NO RESTRICTION ON OTHER ACTIVITIES

Each Party has the unrestricted right to engage in, and receive the full benefit of, any activity outside the scope of the Joint Venture, without consulting with, or accounting to, the other Party, or permitting the other Party to participate in such activity.

15. TERMINATION

If the Parties agree to terminate the Joint Venture, the Operator may take any actions necessary or desirable to wind up the Joint Venture. All costs, charges and expenses of winding up the Joint Venture (including in respect of any reclamation) shall be for the account of the Joint Venture and the Parties shall divide the net Joint Venture Assets in proportion to their Joint Venture Interests, although any loans advanced to the Joint Venture by a Party shall be satisfied before any other distribution of assets is made to the Parties. Once the said costs, charges and expenses have been paid in full, the Operator may sell the Joint Venture Assets, in accordance with Section 3.8 of this Schedule "C", or distribute the Joint Venture Assets to the Parties in kind.

16. WITHDRAWAL FROM JOINT VENTURE

16.1 Right of Withdrawal and Mechanics. Either Party may, at any time during the Joint Venture, voluntarily withdraw from the Joint Venture (the "**Withdrawing Party**") and forfeit its interest in and to the Property and its rights under this Agreement by giving written notice of such withdrawal to the other Party (the "**Remaining Party**"). The notice must indicate an effective date for such withdrawal which may not be earlier than 90 days after receipt of such notice. The effects of the delivery of such notice are set out below.

(a) The Withdrawing Party shall:

(i) remain liable for its share, based on its Joint Venture Interest, of all costs, expenses and obligations arising out of operations conducted before the effective date of the withdrawal;

- (ii) secure by way of a letter of credit, or otherwise to the satisfaction of the Remaining Party, its share, based on its Joint Venture Interest, of the costs of reclaiming the Property, as estimated at the effective date of the withdrawal considering all applicable statutes, regulations, by-laws, laws, orders and judgments and with all directives, rules, consents, permits, orders, guidelines, approvals and policies of any governmental authority;
 - (iii) continue, for a period of three years after the effective date of the withdrawal, to be bound by Section 12 of this Schedule "C";
 - (iv) execute and deliver such documents as may be necessary to transfer the Property to the Remaining Party;
 - (v) remove, within 12 months of the effective date of the withdrawal, all buildings, machinery, equipment and supplies brought upon the Property by the Withdrawing Party that are not Joint Venture Assets; and
 - (vi) not be entitled to any royalty under this Agreement.
- (b) The Remaining Party shall become the owner of a 100% of the Withdrawing Party's interest in and to the Property as of the effective date of the withdrawal.
- (c) The Joint Venture shall be terminated and the Management Committee shall be terminated, as of the effective date of the withdrawal.

16.2 Right of Remaining Party to Withdraw. Upon receipt by the Remaining Party of a notice of withdrawal, the Remaining Party may give notice to the Withdrawing Party prior to the effective date of the withdrawal electing to join in the withdrawal ("**Joint Withdrawal**"). In such case, the Joint Venture shall be terminated in accordance with Section 15 of this Schedule "C".

17. RIGHTS TO MINERAL PRODUCTS

17.1 Each Party shall own and have the right, privilege and power to take in kind and separately dispose of a portion of all mineral products produced from the Property, in accordance with its Joint Venture Interest. The Operator shall designate and notify the Parties of the points of delivery situated on the Property for the Parties respective Joint Venture shares of such Mineral Product and all costs in respect of such mineral products shall be for the account of the Joint Venture, until such mineral products are delivered to such points. After such mineral products are delivered to such points each Party shall pay its own costs in respect of such mineral products. The Operator shall use its best efforts to ensure that each Party receives product of like quality.

17.2 The Operator shall have no obligation in respect of the Parties' mineral products after delivery of such mineral products to the point of delivery provided, however, that if a Party is prepared to sell its mineral products at the same time and on the same terms and conditions as the Operator is selling its own mineral products and so advises the Operator the Operator may, but is not obligated to, act as an

agent for the Non-Operator in relation to the sale of the Non-Operator's mineral products on the terms and conditions that are equivalent to the terms and conditions obtained for its own mineral products. If the Operator elects to act as agent for the Non-Operator, it may discontinue such agency at any time upon giving the Non-Operator 30 days advance notice. If the Operator, while acting as the Non-Operator's agent, is of the opinion that 100% of its own mineral products and 100% of the Non-Operator's mineral products available for sale cannot be sold at the same time for revenue deemed acceptable by the Operator, the Operator shall arrange for sales of a lesser amount of each Party's mineral products on a pro rata basis. In the event that the Operator acts as an agent for the Non-Operator, the Operator shall be entitled to sale commissions equal to prevailing rates charged by other agents for effecting similar sales. In the event of a non-arm's length sale of mineral products, such sale shall be at commercially competitive rates.

18. FORCE MAJEURE

A party may claim *force majeure* if such party is prevented from or delayed in performing any obligation under this Agreement by any cause beyond its reasonable control, excluding only lack of finances, but including, without limitation, acts of God, strikes, lockouts, or other industrial disputes, laws, rules and regulations or orders of any duly constituted court or governmental authority, acts of terrorism, acts of the public enemy, war, insurrection, riots, fire, storm, flood, unusually harsh weather causing delay, explosion, government restriction, failure to obtain any approvals required from regulatory authorities or unavailability of equipment, materials or transportation (provided the approvals were properly applied for and pursued in good faith and on a timely basis or the equipment, materials or transportation were sought in a timely way), any delay by a regulatory authority in renewing a tenure to the Property or, where a party is entitled thereto, to a higher form of tenure being issued (provided applications therefor were made reasonably in advance of the tenure due date and pursued in good faith), interference by third party interests groups (including environmental lobbyists or indigenous peoples' groups) or other causes whether of the kind enumerated above or otherwise, then the time for the performance of that obligation shall be extended for a period equivalent to the total period the cause of the prevention or delay persists regardless of the length of such total period. A party may also claim force majeure, if such party, acting reasonably, believes that social or political unrest in the region of the Property or the threat of that unrest will endanger the safety of its employees or the employees of its contractors if the party were to continue with the work program unless such social or political unrest is caused by action or inaction by that party. The party that claims force majeure shall promptly notify the other party and shall take all reasonable steps to remove or remedy the cause of the prevention or delay insofar as it is reasonably able to do so and as soon as possible. The party claiming force majeure will provide the other party with a regular a written report summarizing events that have occurred and prospects for resolution.

19. ARBITRATION

19.1 If any question, difference or dispute shall arise between the Parties or any of them in respect of any matter arising under this Agreement or in relation to the construction hereof the same shall be determined by the award of one arbitrator to be named as follows:

- (a) the Party or Parties sharing one side of the dispute shall name a representative to select an arbitrator and give notice thereof to the Party or Parties sharing the other side of the dispute;
- (b) the Party or Parties sharing the other side of the dispute shall, within 14 days of receipt of the notice, name a representative to select an arbitrator; and
- (c) the two representatives so named shall, within 30 days of the naming of the latter of them, select a third person who shall act as arbitrator.

The decision of the arbitrator shall be made within 60 days after selection. The expense of the arbitration shall be borne equally by the parties to the dispute. If the Parties on either side of the dispute fail to name their representative within the time limited or fail to proceed with the arbitration, reference for appointment of an arbitrator shall be made to the British Columbia International Arbitration Centre. The arbitration shall be conducted in accordance with the provisions of the *Commercial Arbitration Act* (British Columbia), and the decision of the arbitrator shall be conclusive and binding upon all the Parties.

SCHEDULE "D" – MINING LEASE NET SMELTER RETURNS

Article 8 of the amended Mining Lease

Royalty Schedule. AMCOR shall pay NALLC a net smelter royalty ("NSR") on all development and production ores and minerals extracted, milled, and sold from the Property as shown in the following table:

<u>Value Per Ton</u>	<u>NSR</u>
Less than \$500/per ton	2%
\$500/per ton or more	3%

NSR Payment. The NSR shall be determined by the actual payment for the ores by the smelter, refinery, or buyer less reasonable charges for concentrate transportation and insurance. The quarterly payment to AMCOR shall be made on or before the 30th day of the third month following each calendar quarter.

Royalty Statements. Due on the same day as the NSR payment, AMCOR shall provide NALLC with a royalty statement ("Royalty Statement") which details the amount of ores, minerals, or other products sold or processed and a detailed compilation of the payment due.

Examination and/or audit. NALLC may require an independent audit by a certified public accountant ("CPA") or accounting firm that is acceptable to both parties of the Royalty Statement and all records related to concentrate or product sales. If the audit discloses a substantial discrepancy(ies), defined as discrepancy(ies) resulting in an underpayment to NALLC of five percent (5%) or more of the NSR due or an ongoing history of significant underpayment to NALLC, the cost of the audit shall be paid by AMCOR. If the audit fails to disclose a substantial discrepancy(ies), the cost of the audit shall be paid by NALLC. AMCOR shall keep appropriate records detailing the amount, source, and assay of ores, minerals, or other products recovered, processed, sold, or shipped and the amount and source of payment received.

Commingling of Ore. AMCOR may commingle ore from the Property with ore from other properties, either before or after concentration or beneficiation, so long as the data necessary to determine the weight and grade, both of the ore removed from the Leased Premises and the ore with which it is commingled, are obtained by AMCOR. All such weight, grade and allocation calculations by AMCOR shall be done in a manner recognized by the mining industry as practical and sufficient at that time.

Treatment at AMCOR's Processing Facilities. AMCOR shall have the right to purchase and to treat concentrates and smelting ores produced from the Property at its own metallurgical facility; however, that any such purchase and treatment shall be made under comparable terms as the metallurgical facility is then offering to other shippers of concentrates and smelting ores or purchases of like quantities and qualities.

Advance Royalty Payments. NALLC and AMCOR confirm that an advance royalty payment of \$25,000 was paid to NALLC at the time of the execution of the letter of intent between AMCOR and NALLC.

In addition, AMCOR shall pay an annual advance minimum royalty of \$10,000 on the first anniversary of this lease, \$20,000 on the second anniversary, \$30,000 on the third anniversary, \$40,000 on the fourth anniversary, \$50,000 on the fifth anniversary, and \$50,000 on each anniversary thereafter. The advance minimum royalty shall be paid on or before ten days after the anniversary date, and thereafter on or before ten days following the anniversary each succeeding year, and shall be deducted from future NSR payments that may be paid during that year.

Disputes Regarding Royalties. NALLC shall be deemed to have waived any right NALLC may have had to object to the royalty settlement made by AMCOR for any calendar quarter, unless NALLC notifies AMCOR in writing of such objection within twelve (12) months after such royalty is due under this Lease. The dispute or disagreement must list the specific items being contested and detail with particularity the grounds for each contest or dispute. If NALLC and AMCOR are unable to resolve the question by agreement within thirty (30) days after AMCOR's receipt of NALLC's notice, the dispute shall be resolved by arbitration, in accordance with the provisions of Article 22 of the Mining Lease.

Hedging/Future Market. NALLC acknowledges that AMCOR may from time to time participate in hedging and/or metal futures markets and, further, NALLC agrees that all such activity shall be for the sole account of AMCOR and NALLC shall not share in any of the benefits or risks associated with such activity.

Assays by NALLC. NALLC may at any time and at its own expense assay samples of ore extracted by AMCOR.

SCHEDULE "E" – MINING LEASE

SCHEDULE "F" – JOINT VENTURE NET SMELTER RETURNS

1. For the purpose of this Schedule, "**Agreement**" shall mean the Agreement to which this Schedule is attached, "**Owner**" shall mean the party or parties paying a percentage of Net Smelter Returns pursuant to the Agreement and other capitalized terms shall have the meanings assigned to them in the Agreement.
2. For the purposes of the Agreement and this Schedule, the term "**Net Smelter Returns**" shall, subject to paragraphs 3, 4, 5 and 6 below, mean gross revenues received from the sale by the Owner of all ore mined from the Properties and from the sale by the Owner of concentrate, metal and products derived from ore mined from the Properties, after deduction of the following:
 - a) all smelting and refining costs, sampling, assaying and treatment charges and penalties including but not limited to metal losses, penalties for impurities and charges for refining, selling and handling by the smelter, refinery or other purchaser (including price participation charges by smelters and/or refiners);
 - b) costs of handling, transporting, securing and insuring such material from the Properties or from a concentrator, whether situated on or off the Properties, to a smelter, refinery or other place of treatment, and in the case of gold or silver concentrates, security costs;
 - c) ad valorem taxes and taxes based upon sales or production, but not income taxes; and
 - d) marketing costs, including sales commissions, incurred in selling ore mined from the Properties and from concentrate, metal and products derived from ore mined from the Properties.
3. (a) Where revenue otherwise to be included under this Schedule is received by the Owner in a transaction with a Party with whom it is not dealing at arm's length, the revenue to be included shall be based on the fair market value under the circumstances and at the time of the transaction.

 (b) Where a cost otherwise deductible under this Schedule is incurred by the Owner in a transaction with a party with whom it is not dealing at arm's length, the cost to be deducted shall be the fair market cost under the circumstances and at the time of the transaction.
4. For the purposes of determining Net Smelter Returns, all receipts and disbursements in a currency other than Canadian shall be converted into Canadian currency on the day of receipt or disbursement, as the case may be, and all other disbursements in a currency other than Canadian shall be converted into Canadian currency at the average rate for the month of disbursement determined using the Bank of Canada noon rates.
5. The Owner and the person receiving a percentage of Net Smelter Returns hereby expressly agree that in no event shall the Owner have any liability to the person receiving a percentage of Net Smelter Returns as the result of the amount of revenues received by the Owner from any forward sales or other hedging activities engaged in and by the Owner with respect to ore concentrate, metal and products from the Properties. In addition, the Owner and the person receiving a percentage of Net Smelter Returns agree that the Owner shall have no obligation, express or

implied, to engage in (or not engage in) any forward sales or other hedging activities with respect to ore concentrate, metal or products from the Properties. For greater certainty the person receiving a percentage of Net Smelter Returns will be paid for the amount of product actually produced from the Properties calculated according to paragraph 2 of this Schedule regardless of the hedging practices of the Owner.

6. If the Properties is brought into commercial production, it may be operated as a single operation with other mining properties owned by third parties or in which the Owner has an interest, in which event, the parties agree that (notwithstanding separate ownership thereof) ores mined from the mining properties (including the Properties) may be blended at the time of mining or at any time thereafter; provided, however, that the respective mining properties shall bear and have allocated to them their proportionate part of costs described in paragraphs 2(a) to 2(d) above incurred relating to the single operation, and shall have allocated to each of them the proportionate part of the revenues earned relating to such single operation. In making any such allocation, effect shall be given to the tonnages of ore and other material mined and beneficiated and the characteristics of such material including the metal content of ore removed from, and to any special charges relating particularly to ore, concentrates or other products or the treatment thereof derived from, any of such mining properties. The Owner shall ensure that reasonable practices and procedures are adopted and employed for weighing, determining moisture content, sampling and assaying and determining recovery factors.
7. Payments of a percentage of Net Smelter Returns shall be made within thirty (30) days after the end of each calendar quarter in which Net Smelter Returns, as determined on the basis of final adjusted invoices, are received by the Owner. All such payments shall be made in Canadian dollars.
8. In the year in which commercial production is commenced on the Properties, each person receiving a percentage of Net Smelter Returns from the Owner shall be provided quarterly within ninety days (90) after the end of each calendar quarter, with a copy of the calculation of Net Smelter Returns, determined in accordance with this Schedule, for the preceding calendar, certified correct by the Owner. The person receiving a percentage of Net Smelter Returns shall have the right, upon serving thirty (30) days' notice to the Owner, to conduct an independent audit, at its sole cost, and the Owner will provide such materials and information as reasonably necessary to allow the audit to be performed.
9. Nothing contained in the Agreement or any Schedule attached thereto shall be construed as conferring upon any person receiving a percentage of Net Smelter Returns any right to or beneficial interest in the Properties. The right to receive a percentage of Net Smelter Returns from the Owner as and when due is and shall be deemed to be a contractual right only. Furthermore, the right to receive a percentage of Net Smelter Returns by a party from the Owner as and when due shall not be deemed to constitute the Owner the partner, agent or legal representative of such party or to create any fiduciary relationship between them for any purpose whatsoever.
10. The Owner shall be entitled to (i) make all operational decisions with respect to the methods and extent of mining and processing of ore, concentrate, metal and products produced from the Properties (for example, without limitation, the decision to process by heap leaching rather than

conventional milling), (ii) make all decisions relating to sales of such ore, concentrate, metal and products produced and, (iii) make all decisions concerning temporary or long-term cessation of operations.

SCHEDULE "G" – NET PROCEEDS CALCULATION

Income and Expenses. For the purposes of this Agreement, the term “Net Proceeds” shall be calculated by deducting from the gross revenues realized (or deemed to be realized) from the sale (or deemed sale) of Products, such costs and expenses attributable to Expenditures, Exploration, Development, Mining, mine construction costs, production financing costs, and the marketing of Products as would be deductible under International Financial Reporting Standards and practices consistently applied as employed by the Operator, including without limitation:

- (a) All costs and expenses of replacing, expanding, modifying, altering or changing from time to time the Mining facilities. Costs and expenses of improvements (such as haulage ways or mill facilities) that are also used in connection with workings other than the Properties shall be charged to the Properties only in the proportion that their use in connection with the Properties bears to their total use.
- (b) Ad valorem real property and unsecured personal property taxes, and all taxes, other than income taxes, applicable to Mining of the Properties, including without limitation all state mining taxes, sales taxes, severance taxes, royalties, license fees and governmental levies of a similar nature.
- (c) Allowance for overhead.
- (d) All expenses incurred relative to the sale of Products, including an allowance for commissions at rates which are normal and customary in the industry.
- (e) All amounts payable to the Operator during Mining pursuant to any applicable operating or similar agreement in force with respect thereto.
- (f) The actual cost of investment prior to beginning of Mining which shall include all Expenditures for Exploration and Development of the Properties incurred by the Operator.
- (g) Interest on monies borrowed or advanced for costs and expenses, at an annual rate equal to five (5) percentage points above the Prime Rate, but in no event in excess of the maximum permitted by law.
- (h) An allowance for reasonable working capital and inventory.
- (i) Reasonably anticipated reclamation costs.

It is intended that the Operator shall recoup from net cash flow all of its contributions for Expenditures, Exploration, Development, Mining, mine construction costs, production financing costs and marketing Products before any Net Proceeds are distributed to any person holding a Net Proceeds interest. No deduction shall be made for income taxes, depreciation, amortization or depletion. If in any year after the beginning of Mining of the Properties an operating loss relative thereto is incurred, the amount thereof shall be considered as and be included with outstanding costs and expenses and carried forward in determining Net Proceeds for subsequent periods. If Products are processed by the Operator then, for purposes of calculating Net Proceeds, such Products shall be deemed conclusively to have been sold at a price equal to fair market value to arm's length purchasers and Net Proceeds relative thereto shall be calculated without reference to any profits or losses attributable to smelting or refining.

2. **Payment of Net Proceeds.** Payments of Net Proceeds shall commence in the financial year for the Joint Venture in which Net Proceeds are first realized, and shall be made 60 days following the end of each interim quarter for the Joint Venture during which Net Proceeds are realized, and shall be subject to adjustment, if required, at the end of each financial year for the Joint Venture. The recipient of such Net Proceeds payments shall have the right, upon serving thirty (30) days' notice to the Operator, to conduct an independent audit, at its sole cost, and the Operator will provide such materials and information as reasonably necessary to allow the audit to be performed.

Appendix B: List of Present and Planned Expenditure on the Monitor Property in 2013

	Total Monitor Budget 2013	Expended to Date	Phase 1 to March 31	Phase 2 to June 30	Phase 3 to December 31
Property Expenses					
Acquisition & Holding	35,000	10,000	15,000	10,000	0
BLM	12,000			3,500	8,500
Lease payments	25,000				25,000
Legal	17,000	12,000	5,000		0
Other	6,000		6,000		0
Assay & Analysis	60,000	1,000	4,000	25,000	30,000
Camp	35,000	5,000	10,000	10,000	10,000
Communications	6,000	1,000	1,000	2,000	2,000
Contractors	25,000			18,000	7,000
Consultants	50,000	4,243		25,000	20,757
Drilling Costs	550,000			350,000	200,000
Equipment	95,000	20,000		75,000	0
Field Costs	150,000	63,587	20,000	35,000	31,413
Field Office	10,500	2,100	3,000	3,000	2,400
Field Supplies	150,000		25,000	75,000	50,000
Geologists/Engineers	260,000	15,000	70,000	40,000	135,000
Geophysics	130,000		20,000	75,000	35,000
Geotech Costs	75,000		25,000	30,000	20,000
Haulage	52,500		6,000	25,000	21,500
Insurance	18,000		18,000		0
Inspections/Evaluations	52,500		10,500	35,000	7,000
Mob/Demob	42,000		5,000	22,000	15,000
Office & Storage	36,000		6,000	18,000	12,000
Permitting	37,000		18,000	19,000	0
Project Management	75,000	5,000	20,000	25,000	25,000
Reclamation Bonds	24,000		24,000		0
Reclamation Costs Other	18,000				18,000
Rentals	46,500	2,000	7,000	12,000	25,500
Reports	30,000	5,000		9,500	15,500
Sampling Bulk	600,000			200,000	400,000
Shipping	17,000	500	2,500	5,500	8,500
Supplies (other)	111,500		8,000	48,000	55,500
Travel & Accom	57,000	13,000	5,000	15,000	24,000
Subtotal	2,908,500	159,430	334,000	1,210,500	1,204,570

"The Geology & Mineralization at the Cu-Au-Ag Monitor Mine Property, Eastern Coeur d'Alene Mining District, Idaho." by G.E. Ray. NI 43-101 Technical Report for Archean Star Resources Inc., February 10th 2013.

		Total Monitor Budget 2013	Expended to Date	Phase 1 to March 31	Phase 2 to June 30	Phase 3 to December 31
Contingency	10%	290,850	0	43,628	72,713	174,510
Subtotal		3,199,350	159,430	377,628	1,283,213	1,379,080
Project Overhead	10%	319,935		47,990	79,984	191,961
Subtotal		3,519,285	159,430	425,618	1,363,196	1,571,041
Admin	15%	527,893		79,184	131,973	316,736
TOTAL Project Cost		4,047,178	159,430	504,802	1,495,169	1,887,777
<hr/>						
Expended to Date			<u>159,430</u>			159,430
Listing Financing				<u>504,802</u>	<u>1,495,169</u>	1,999,971
Secondary						<u>1,887,776.65</u>
<hr/>						
Total All Budgets & Expenditures						<u>4,047,178</u>