


# **Clayton Silver Mine Exploration Project, Bayhorse Mining District, Custer County, Idaho**

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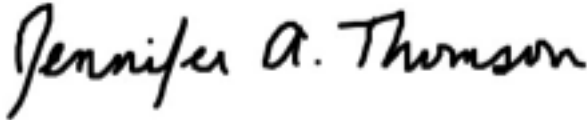
**March 12, 2012**



## SIGNATURE AND DATE

I, Jennifer Thomson, hereby certify this report on the 12<sup>th</sup> day of March 2012.

**Jennifer A. Thomson**



## STATEMENT OF QUALIFICATIONS

### Authors Certificate

I, Jennifer A. Thomson, of Spokane, WA, (J.A. Thomson Consulting, Ph.D., LG, LLC) do hereby certify that:

1. I am a consulting geologist to CMX Gold & Silver Corp. (Formerly Liard Resources Ltd.) I have taken full responsibility for the technical report titled “Clayton Silver Mine Exploration Project, Bayhorse Mining District, Custer County, Idaho” dated March 12, 2012.
2. I graduated with degrees from the following institutions:  
  
University of Massachusetts, Ph.D. in Geology, 1992  
University of Maine at Orono, M.S. in Geological Sciences, 1985  
University of New Hampshire, B.S. in Earth Sciences, 1982
3. I am a Registered Member in good standing of the Society for Mining, Metallurgy and Exploration, Inc. (SME Membership No. 4172899) and I have been a Registered Professional Geologist in the State of Washington since 9/17/2001 (License No. 185). I am also a member of the Mineralogical Society of America and the Geological Society of America and currently serving as an Editor of the American Mineralogist (2008 – present).
4. I have worked as a geologist for over 20 years since my graduation from the University of New Hampshire in 1982 including academic positions at Eastern Washington University, WA (1996 – present); State University of New York at Albany; The University of the South, TN; Albion College, MI; Mt. Holyoke College, MA. I am a trained petrologist and optical microscopist and teach courses in mineralogy, petrology, volcanology and optical mineralogy. My courses typically include materials on ore deposit mineralogy and genesis. I have examined core, prepared petrographic reports and hand sample descriptions for Azteca Gold Corp. and have prepared Technical Reports for both Azteca Gold Corp. and CMX Gold & Silver Corp. (Formerly Liard Resources, Ltd.) Selected publications include:

Thomson, J.A. (2008) Beneath the Stillwater complex: Petrology and geochemistry of quartz-plagioclase-bearing cordierite (or garnet) - orthopyroxene +/- spinel hornfels, Mountain View area, Montana. *American Mineralogist*, v. 93, 438 - 450.

Thomson, J.A. (2006) A rare garnet-tourmaline-sillimanite-biotite-ilmenite-quartz assemblage from the granulite-facies of south-central Massachusetts. *American Mineralogist*, v. 91, 1730 - 1738.

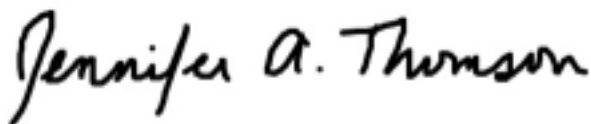
Thomson, J.A. (2001) Relationships of coticule geochemistry to stratigraphy in the Perry Mountain and Megunticook Formations, New England Appalachians. *Canadian Mineralogist* v. 39, p. 1021 - 1038.

Thomson, J.A. (2001) A counterclockwise P-T path for anatectic pelites, south-central Massachusetts. *Contributions to Mineralogy and Petrology*, v. 141, No. 5, p. 623-641.

5. I have read the definition of “qualified person” set forth by National Instrument 43-101 and certify that by reason of my education, affiliation with a foreign association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.
6. I visited the Clayton Silver Mine property on December 20 – 21, 2010. The details of this visit are included in the Technical Report.
7. I have had no prior involvement with the property that is the subject of the Technical Report. I hold no shares with CMX Gold & Silver Corp. (Formerly Liard Resources Ltd.)
8. As of the date of this certificate, and to the best of the my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
9. I am independent of the issuer with respect to Section 1.5 of the National Instrument 43-101.
10. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

Dated this March 12, 2012.

Jennifer A. Thomson

A handwritten signature in black ink that reads "Jennifer A. Thomson". The signature is written in a cursive, flowing style.

## **CONSENT OF AUTHOR**

**J.A. Thomson Consulting, Ph.D., LG, LLC**  
**325 E. 19<sup>th</sup> Ave.**  
**Spokane, WA 99203**

I, Jennifer Thomson, do hereby consent to the public filing of the technical report titled “Clayton Silver Mine Exploration Project, Bayhorse Mining District, Custer County, Idaho” and dated March 12, 2012 (the “Technical Report”) by CMX Gold & Silver Corp.

This technical report supports the Amended and Restated Preliminary Prospectus filed by CMX Gold & Silver Corp. I certify that I have read the Prospectus and that the disclosure in the Prospectus fairly and accurately represents the information in the report. I have no reason to believe that there are any misrepresentations in the information contained in the Prospectus derived from the report or that are within my knowledge as a result of the services that I performed in connection with the report.

Dated this March 12, 2012.

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## 11.0 SUMMARY

This report (prepared by J.A. Thomson Consulting, Ph.D., LG, LLC) for CMX Gold & Silver Corp. (Formerly Liard Resources Ltd.), and dated March 12, 2012 provides a summary of the physical setting, geology, exploration history and mineral exploration potential of the Clayton Silver Mine Exploration Project. The author visited the Clayton Silver Mine property on December 20 – 21, 2010. The details of this visit are included in the Technical Report.

The Clayton Silver Mine, discovered in 1877, and historically one of the most active mines in the Bayhorse Mining District in central Idaho, was an underground Pb-Zn-Cu-Ag mine. A smelter operated in Clayton from 1880 to 1902 and again in 1912 (Ross, 1963) serving the Bayhorse Mining District. The Clayton Silver Mine, one of nearly 50 in the district, was largely operational from 1935 through 1986. From 1935 to 1985, the mine produced approximately 6.7 million ounces of silver, 83.5 million pounds of lead (Mitchell, 2010), and an estimated 28.9 million pounds of zinc, 1.4 million pounds of copper and nearly 1,454 ounces of gold. The Clark Mining Company leased and mined the property in 1927. The mine was operated by the Clayton Mines, Inc. (Wallace, Idaho) under the ownership of the Clayton Mining Company from 1935 to 1986. A new production record for the first quarter of 1983 (16,676 tons of ore) was reached. The 1983 6.9 magnitude Borah Peak earthquake with an epicenter 25 miles from Clayton caused water to accumulate in the underground workings and suspended mining operations. A large-capacity pumping system allowed for continued operations in 1984, however, the mine closed on May 24, 1986, primarily due to low metal prices.

Little practical infrastructure remains on the surface of the mine with the exception of several old buildings, the hoist, and a large metal storage shed. In 1999, the U.S. Environmental Protection Agency (EPA) removed and disposed of hazardous mill and assay lab-related chemicals from the site that were left when the operation ceased. In 2001, the EPA completed a time-critical removal action to stabilize mine tailings to prevent erosion into Kinnikinic Creek, control infiltration of water into tailings and seepage of water from tailings, and to minimize wind erosion (EPA, 2001). The final report produced by the EPA summarizes the actions taken to remediate the site (EPA, 2002). This remediation was successful.

Main rock types in the immediate vicinity of the mine consist of Paleozoic age (Cambrian-Ordovician) sedimentary rocks including the Kinnikinic Quartzite, Ella Dolomite and the Clayton Mine Quartzite. The Ella Dolomite is the host rock for the mineralization at the Clayton Silver Mine and the adjacent Rob Roy property to the north of the Clayton Silver Mine. Rocks of the Cretaceous Idaho batholith are exposed to the west and the youngest rocks that cover the Paleozoic sedimentary rocks and the Idaho batholith are Eocene Challis volcanic rocks which are poorly exposed in the ridges to the west of the mine. The Paleozoic rocks are deformed into a northwest trending asymmetric anticline (Clayton anticline). Mineralization appears to be restricted to the east flank of this fold and is associated with shear zones that parallel bedding in the Ella Dolomite. Regional thrust faults, high angle normal and reverse longitudinal faults, and transverse strike slip faults have been identified in the region. The latter faults cut the former structures and the anticline.

Current mine owners should procure all drill records (if they exist) and records pertaining to mineralization already discovered and exploited in the Clayton Silver Mine that are available



from previous ownership. The author recommends the initiation of the *Phase 1* drilling program to examine rocks not yet explored below the 1,100 ft. level of the Clayton Silver Mine in order to estimate the extent of the mineralization beyond the 1,100 ft. level. The Idaho Department of Water Resources must be notified prior to commencement of any mining or milling operations or prior to deposition of any tailings on the reclaimed impoundment. Exploration drilling is not considered mining or milling and in Idaho is typically permissible on private, patented ground without mining permits.

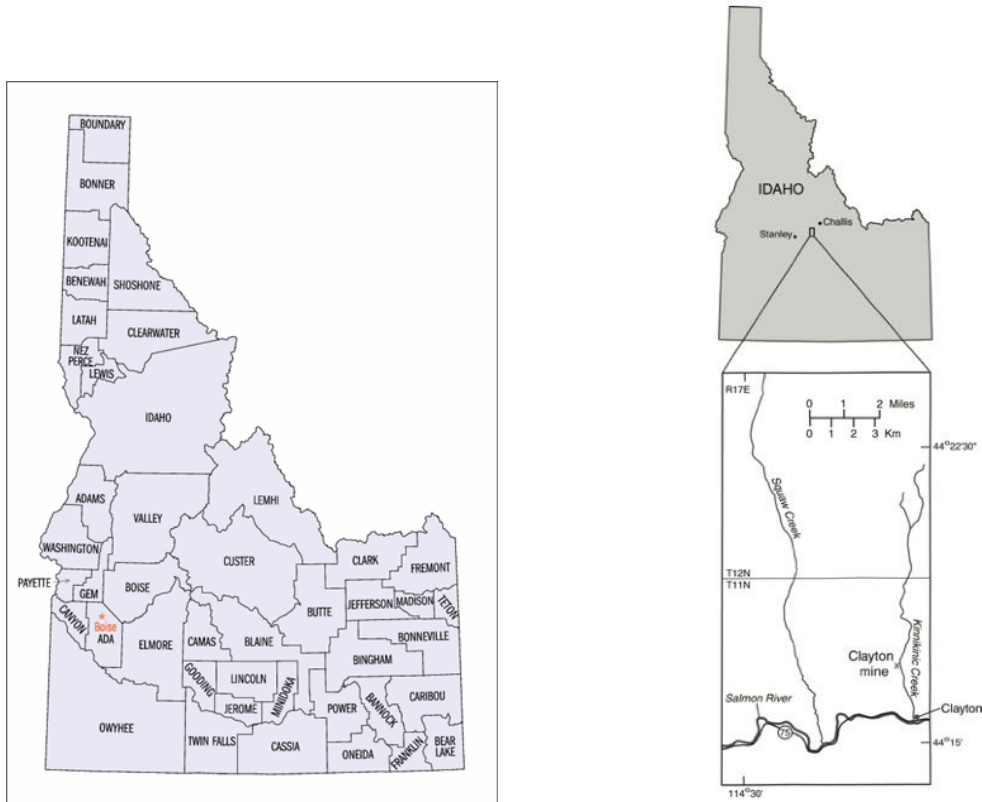
## 2.0 INTRODUCTION

This technical report has been prepared at the request of CMX Gold & Silver Corp. (Formerly Liard Resources Ltd.), an entity with offices at 677 Cougar Ridge Drive S.W., P.O. Box 60019, Calgary, Alberta T3H 5J0, Canada. CMX Gold & Silver Corp. acquired 100% ownership of the Clayton Silver Mine property effective December 16, 2010 from Versailles Real Estate Corporation.

The report concerns the Clayton Silver Mine Exploration Project in central Custer County, Idaho (**Fig. 1**). The report reviews the ownership of the Clayton Silver Mine Exploration Project, previous mining operations, the onsite infrastructure, and a report on the geology and mineralization in the Clayton Silver Mine. This technical report is based on published reports made by persons and entities cited herein. Most of the information about the property and surrounding areas are given in United States terms and units although metric units are also used at times. References to currency are always in United States dollars (USD).

The author visited the Clayton Silver Mine property on December 20 – 21, 2010. During the visit, she was able to speak to Jerry Knox, a maintenance supervisor and underground miner who worked at the Clayton Silver Mine for 23 years, and Joyce Rovetto, who worked in the mine office and who was married to Roland Rovetto, manager at Clayton Silver Mines. Joyce and Roland are long-time residents of Clayton, ID (35 years); Roland is now deceased. The visit included a walk around the property and infrastructure (many of which were constructed in the 1930s), mill and pump house with Mark C. Russell of Azteca Gold Corp. Some of the structures could be remodeled to accommodate new modern mining equipment. At the time of the visit, surface water was flowing from the plugged shaft; the underground workings are flooded.

**Figure 1:** Location of the Clayton Silver Mine Exploration Project in Custer County Idaho (map on right is Figure 2 from Hammarstrom et al., 2002).



### 3.0 RELIANCE ON OTHER EXPERTS

The author of this report is a “Qualified Person” according to the requirements needed for completing a NI 43-101 report. However, some information is drawn from others who may or may not be qualified persons. This report draws substantially on information from the references presented herein.

### 4.0 PROPERTY DESCRIPTION AND LOCATION

The Clayton Silver Mine Exploration Project is located approximately 1.5 miles from the town of Clayton in Custer County, in central Idaho in parts of Sections 11, 12, 13, 14, 23, 24, and 25, T. 11 N., R. 17 E. The mine is located in Section 13, T. 11 N., R. 17 E, within the U.S.G.S. 7.5 minute Clayton topographic quadrangle map. The 565-acre property is located along Kinnikinic Creek, a tributary to the Salmon River. The property encompasses private land as well as patented lode claims within lands under the jurisdiction of the U.S. Bureau of Land Management (BLM). The property consists of 29 patented mining claims and 2 patented mill sites. Lode mining claims include the following: Ella Group – Mineral Survey No. 3144A, Camp Bird Group – Mineral Survey No. 3196, Rose Group – Mineral Survey No. 3327 and the Rose No. 4 Lode Claim – Mineral Survey No. 3336.

CMX Gold & Silver Corp. acquired 100 % of the Clayton Silver Mine Property on February 22, 2011 for a cost of US \$500,000. The acquisition cost was US \$250,000 in cash and the balance

by the issuance of 2.5 million common shares at US \$0.10 per share. In connection with this acquisition, CMX agreed to issue 897,280 common shares to Azteca Gold Corp. as a finder's fee and grant an option to Azteca Gold Corp. to purchase 3 million common shares of the Company at a price of US \$0.10 per share exercisable for a period of two years from the date CMX's common shares commence trading on a stock exchange.

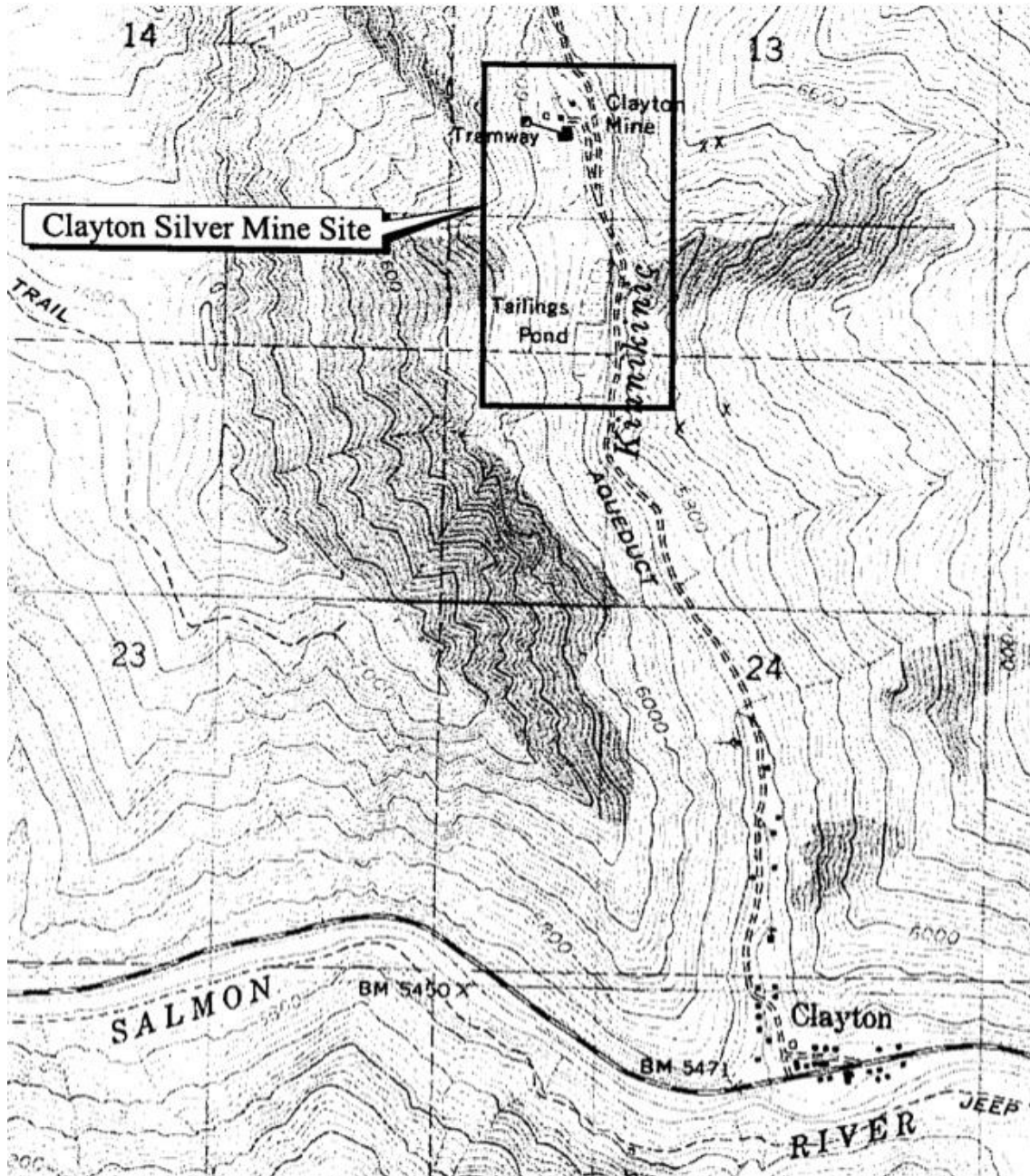
To the extent known, there are no environmental liabilities to which the Clayton property is subject. Additional work would be required to determine if there are any historical liabilities that would be assumed by a new owner of the mine property. A water discharge permit, including mitigation strategies for the endangered fish in the Salmon River would be a normal part of the permitting process.

Starting an exploratory drilling program on private land would require no permitting in the State of Idaho. There are no restrictions on a new owner that would prevent the owner or his contractors to start drilling on the property immediately.

To the extent known, there are no other significant factors and risks that may affect access, title, or the right or ability to perform work on the property. The title has been registered to CMX and under U.S. law, the titles to mineral claims do not expire as long as the annual assessment fees are kept up to date. CMX fees are up to date.

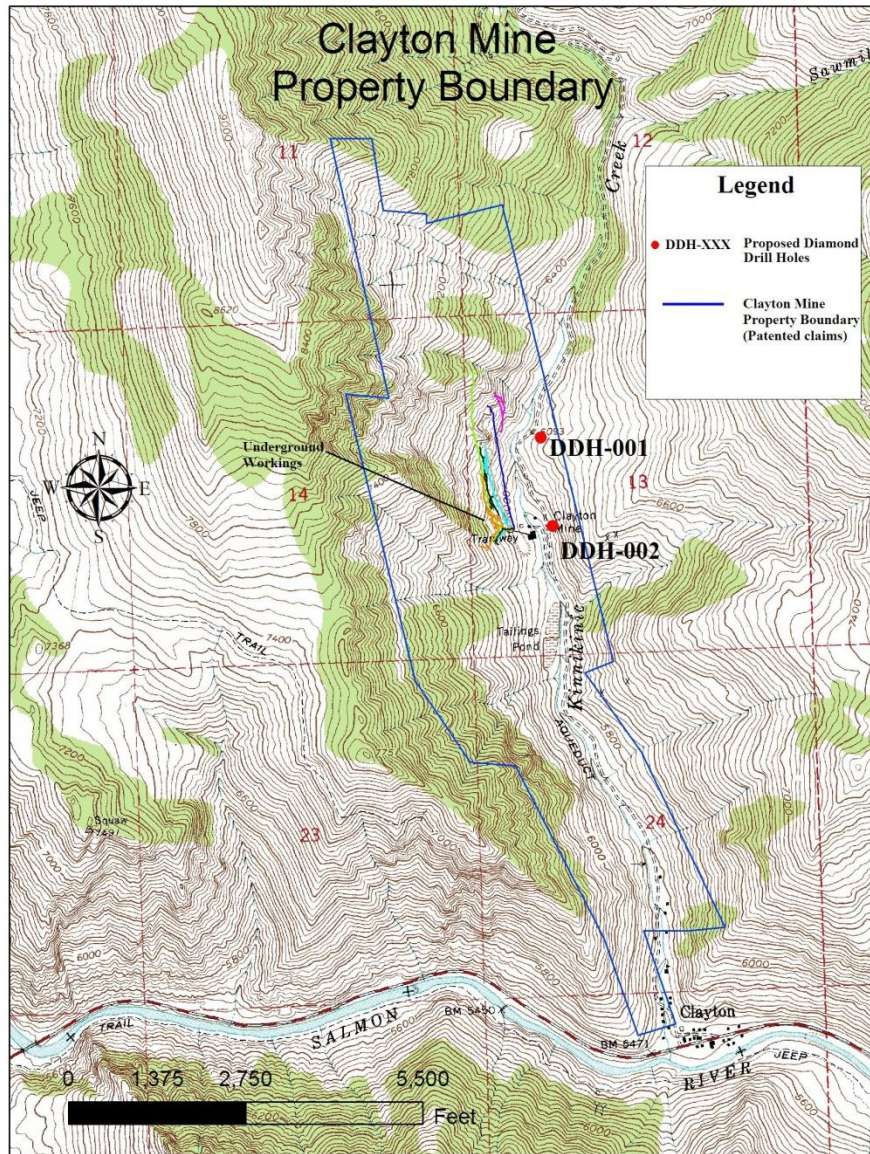
A topographic map illustrating the mine site is shown in **Figure 2**. An outline of the claim block and the patented and unpatented claims are shown in **Figure 3**. Unpatented claims include 7 owned by Thomas C. and Thomas L. Campbell; 1 owned by Cypress Thompson Creek, Thompson Creek Mining Company and F.S. Mooney and; 1 owned by Sharron R. Simmons. Claims are available for surface and drilling exploration to CMX Gold & Silver Corp.

Figure 2: Topographic map of the mine site.





**Figure 3:** Clayton Silver Mine Exploration Project location map with boundary of patented claims and proposed diamond drill holes.



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

The Clayton Silver Mine Exploration Project is located in south-central Idaho near Clayton within the Bayhorse Mining District, Custer County, Idaho (**Figs. 1, 2**). The area is readily accessible from U.S. Highway 75, approximately two miles north of the town of Clayton along Kinnikinic Creek. The closest major airports to the Clayton Silver Mine Exploration Project area are in Boise, Idaho (101 miles from the site) and Challis, Idaho (24 miles from the site). The current population of the town of Clayton is 20 according to the sign seen as the town is approached. The nearby town of Challis, Idaho has a population of 909. Custer County has a population of 4,185.

The Clayton Silver Mine Exploration Project area is located in the upper drainage basin of the Salmon River along Kinnikinic Creek, a tributary to the Salmon River in an arid desert and mountainous region. The valley of Kinnikinic Creek near the site is narrow with walls rising more than 1000 ft. above the creek. The town of Clayton is at 5,471 ft. elevation. The hoist at the mine sits at approximately 6,000 ft. elevation. Climate summaries for Challis, Idaho (from 1895 to 1996) show average annual temperatures ranging from 30.1 to 58.1 (F), average total precipitation of 7.38 in., and average total snowfall of 17.1 in. Strong winds are a frequent occurrence at the mine site – primary wind directions are from the south and the east. Winters are characterized by light snowfall and some subzero conditions whereas the summers are hot and dry. The property is accessible year-round for surface and exploratory drilling as proposed by CMX Gold & Silver Corp.

At the present time, the underground workings of the mine are flooded with water and the adit is plugged. Little practical infrastructure remains on the surface of the mine with the exception of several old wood frame buildings, the hoist, and a large metal storage shed. Equipment still on site includes the hoist, milling equipment (ball mill, floatation tanks), a generator, and water powered electrical generator. Some of the milling equipment may be operational after refurbishment. Supplies, equipment, and services to carry out exploration and mine development projects are available in Challis and Boise, Idaho.

## **6.0 HISTORY**

### **6.1 MINING HISTORY**

The Clayton Silver Mine, discovered in 1877, and historically one of the most active mines in the Bayhorse Mining District in central Idaho, was an underground Pb-Zn-Cu-Ag mine. The town of Bayhorse, located a few miles southwest of Challis, ID, is currently a State Park. The Clayton Silver Mine was one of the largest silver producers in Custer County, Idaho and in the state of Idaho outside of the Coeur d'Alene district (Doe and Sanford, 1995; Mitchell, 2010). The Bayhorse Mining District was most active between 1882 and the 1890s. A smelter for the district operated in Clayton from 1880 to 1902 and reopened again in 1912 (Ross, 1935, 1963). Renewed activity and productivity in the Bayhorse Mining District occurred between 1920 and 1925. Prospect mining at the Clayton Silver Mine site began in 1927 (Clark Mining Co.), at which time the property consisted of 25 patented and seven unpatented claims and was known as the Camp Bird Group. Mining was sporadic until 1935. The Clayton Silver Mine, one of nearly

50 in the district, was largely operational from 1935 through 1986. From 1935 to 1985, the mine produced approximately 6.7 million ounces of silver, 83.5 million pounds of lead (Mitchell, 2010), and an estimated 28.9 million pounds of zinc, 1.4 million pounds of copper and nearly 1,454 ounces of gold.

Mitchell (2010) presents a detailed history of the Clayton Mine and Smelter (available at [http://www.idahogeology.org/PDF/Staff\\_Reports\\_\(S\)/2010/S-10-8.pdf](http://www.idahogeology.org/PDF/Staff_Reports_(S)/2010/S-10-8.pdf)) and compiled production data for the Clayton Silver Mine from a variety of sources including the USGS Mineral Resources of the United States (1882-1923), the U.S. Bureau of Mines Mineral Resources of the United States (1924-1931) and Minerals Yearbook (1932-present). Her report also includes information on the underground workings and mine equipment as reported in required annual reports prepared by the companies for the Idaho Inspector of Mines (1899-1979) and the Mine Safety Bureau (after 1974). See Mitchell (2010) for a complete bibliography. **Table 1** presents production data for select years from Mitchell (2010) and the OME docket no. 6324.

**Table 1:** Production figures for the Clayton Silver Mine (from OME docket no. 6324 and Table 5 of Mitchell, 2010).

Year	Tons of ore	Silver (oz)	Lead (lbs)	Zinc (lbs)	Copper (lbs)	Gold (oz)	Comments
1935 - 1962	821,853	3,365,396	54,974,720	17,265,808	650,830	1,116	
1963	21,600	119,105	1,360,000	178,000	28,000	23	Cu, Pb, and Zn calculated
1964	23,531	144,275	1,378,000	206,000	36,000	27	Cu, Pb, and Zn calculated
1965	26,658	130,877	858,000	126,000	37,000	31	Cu, Pb, and Zn calculated
1966	57,442	246,591	1,514,000	164,000	68,000	54	Cu, Pb, and Zn calculated
1967	68,500	226,000	1,624,000	800,000	56,000		Cu, Pb, and Zn calculated
1968	83,049	290,472	2,724,000	1,104,000	76,000		Cu, Pb, and Zn calculated
1969	81,455	228,824					
1974		113,000	1,290,000				Pb calculated
1975		190,000					
1980		71,900	510,888		19,790		
1981	55,258	103,600	666,660		34,620		
1982		55,900	431,830		18,250		
1983	52,800	177,500					
1984	76,110	226,417	1,397,531	73,576	148,295		
1985	102,258	261,931	1,800,000				

The Clark Mining Company leased and mined the property in 1927. The mine was operated by the Clayton Mines, Inc. (Wallace, Idaho) under the ownership of the Clayton Mining Company from 1935 to 1986. By the end of 1952, the Clayton Silver Mine had produced 1,944,807 ounces of silver, 33,622,737 pounds of lead, 8,518,631 pounds of zinc, 317,641 pounds of copper, and 704 ounces of gold and reserves were estimated at 108,500 tons (Mitchell, 2010).

A new production record for the first quarter of 1983 was reached (16,676 tons of ore). The 6.9 magnitude 1983 Borah Peak earthquake, with an epicenter 25 miles from Clayton, caused water to accumulate in the underground workings (1,100 ft. level) and suspended mining operations. According to a 1983 Annual Report produced by Clayton Silver Mines, Inc., the earthquake did not cause physical damage to the mine or surface facilities. A large-capacity pumping system allowed for continued operations in 1984, however, the mine closed on May 24, 1986, primarily due to low metal prices. In 1984, the mine employed 40 people.

According to the 1983 Clayton Silver Mines, Inc. Annual Report, the proven mineral reserves, including broken mineralization, as of December 31, 1983, were estimated at approximately 353,000 tons. This year-end mineral reserve estimate included only mineralization developed above the 1,100 ft. level of the Clayton Silver Mine. The company had intended to do further exploration of the main shoot from the 1,100 ft. level. According to company records, the average grade was 3.8 oz. Ag per ton. Cut-off grade was 1 oz. per ton. It is noted that this 1983 estimate has not been verified by CMX Gold & Silver Corp. as a current mineral resource or reserve.

In 1991 a major shareholder of the Clayton Silver Mines, Inc. exchanged his shares for shares in El Salvadorian mines controlled by Southern Star Consolidated Corp. (Palm Beach Gardens, FL). The name of the company owning the mine site was changed to the Clayton International Resources/Southern Star Consolidated Corp. After 1991, the Versailles Real Estate Corporation (Panama City, Republic of Panama) assumed ownership of the site. CMX Gold & Silver Corp. (Formerly Liard Resources Ltd.) acquired 100% ownership of the Clayton Silver Mine property effective December 16, 2010 from Versailles Real Estate Corporation.

Few mines in the District remain operational today. However, the open pit Thompson Creek Mine and concentrator (porphyry molybdenum deposit) is located approximately five miles from the Clayton Silver Mine and currently employs over 300 people (as of 2007, Thompson Creek Metals Annual Report, 2008). The Thompson Creek Mine has been in production since 1983 and is the largest employer of Custer County, Idaho. Most employees live in the local Challis community. Mitchell (1999) presents a summary of mining in the Bayhorse Mining District. Ross (1937) stated that, “the region is among the more promising in south-central Idaho and, when the general economic situation improves, should become active again” and Fisher (1985) states that the greatest resource potential in the Challis 1° x 2° quadrangle is within Paleozoic sedimentary rocks.

## **6.2 RECLAMATION HISTORY**

In 1985, the Idaho Department of Environmental Quality (IDEQ) collected samples from the site for analysis and noted that water samples of treated and untreated adit discharge showed elevated concentrations of arsenic, cadmium, copper, iron, lead and zinc. In 1985, the U.S. Environmental Protection Agency (EPA) also noted that water samples had elevated lead, zinc,



copper and cadmium that exceeded national water quality criteria (EPA, 1999). These, and subsequent studies prompted the Idaho Bureau of Environmental Health and Safety to test blood, urine, and hair samples from 20 Clayton residents to be analyzed for lead and arsenic in 1995 – with the exception of one sample (with slightly elevated blood lead level), all showed normal concentrations (EPA, 1999). The EPA removed potentially hazardous materials from the site in 1999. In 1999, the Idaho Department of Lands sealed the top 20 feet of the mine shaft with a polyurethane foam plug, then covered the plug with soil. A bat gate was also installed over the horizontal mine opening adjacent to the mine shaft.

In 2001, the EPA and the Idaho office of the U.S. Bureau of Land Management (BLM) (with assistance from the IDEQ and the U.S. Fish and Wildlife Service), completed a time-critical removal action (remediation) to stabilize mine tailings to prevent erosion into Kinnikinic Creek, control infiltration of water into tailings and seepage of water from tailings, and to minimize wind erosion (EPA, 2001). The purpose of the remediation was to prevent erosion of the 13-acre pile of fine-grained flotation mill tailings and other mine waste by wind and water to protect aquatic life in Kinnikinic Creek and the Salmon River (including bull trout, Chinook salmon, steelhead and cutthroat trout) and to reduce the risk of airborne particulate exposure to humans. The site was and is not a National Priorities List site and the BLM addressed the site as part of their Abandoned Mine Lands Project.

In a recent environmental study of the Clayton Silver Mine site, Hammarstrom et al. (2002) have reported that carbonate-hosted deposits like the Clayton Silver Mine are associated with near-neutral waters that contain relatively low concentrations of base metals. Stabilization of the solid mine waste and mill tailings and additional remediation at the site has reduced production of sediment into Kinnikinic Creek and airborne particles that could potentially impact aquatic and terrestrial ecosystems and pose potential human health threats.

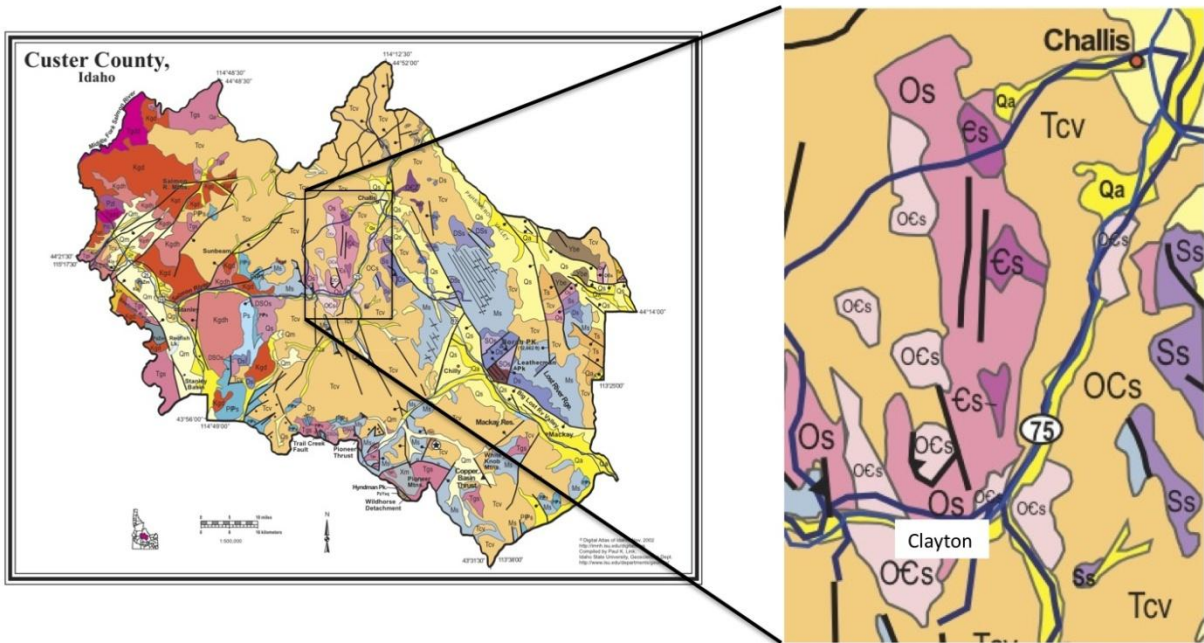
An Idaho State Regional Water Quality Manager at the Idaho Department of Environmental Quality in Idaho Falls, indicated in a phone call with M. Russell of Azteca Gold Corp. that, “with the completed government remediation, the Clayton Silver Mine and Kinnikinic Creek have a clean bill of health”. The Manager indicated that, in his estimation, it would be relatively straightforward to work with the State and Federal regulators to begin production at the Clayton Silver Mine. A water discharge permit, including mitigation strategies for the endangered fish in the Salmon River would be a normal part of the permitting process. Starting an exploratory drilling program on private land would require no permitting in the State of Idaho. Additional work would be required to determine if there are any historical liabilities that would be assumed by a new owner of the mine property. There are no restrictions on a new owner that would prevent the owner or his contractors to start drilling on the property immediately.

## **7.0 GEOLOGICAL SETTING AND MINERALIZATION**

The Clayton Silver Mine Exploration Project is situated in the Bayhorse Mining District, to the west and southwest of the town of Challis in central Custer County, ID. Some of the mines in this area, including the Clayton Silver Mine, contain mineralized shear zones or as mineralized replacement lenses in Paleozoic calcareous rocks. The regional geology of Custer County, ID is illustrated in **Figure 4**. The area highlighted to the right of the geologic map shown in **Figure 4** shows Cambrian and Ordovician sedimentary rocks (shades of pink), Silurian sedimentary rocks (purple), and Mississippian sedimentary rocks (blue). These Paleozoic units (quartzites,

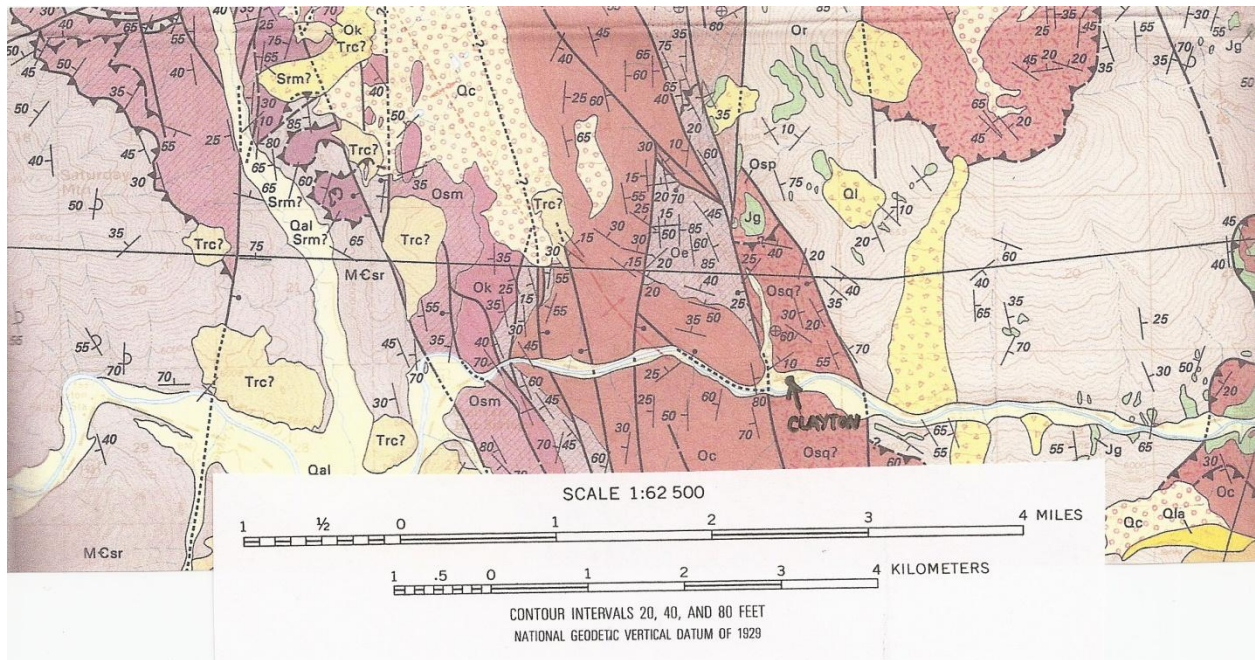
dolomites and slates) were deposited in a shallow sea in a transitional environment. The rocks are overlain by Eocene Challis Volcanics (orange, Tcv). Young alluvial deposits are shown in yellow.

**Figure 4:** Geologic map of Custer County, ID and Clayton area (from Digital Geology of Idaho).



The Bayhorse area was originally mapped by Ross (1937) and subsequently examined by Snyder (1978), Fisher (1985), Worl et al. (1989) and Hobbs et al. (1991). Hobbs (1985) and Hobbs et al. (1991) recognized six stratigraphic-structural terranes. The Clayton Silver Mine is located in what they called Terrane D. The Clayton Silver Mine is located within the Ordovician Ella Dolomite (Hobbs et al., 1991). Underground workings examined by Hillman (1986) show an irregular mineralized zone within shaley dolomite sandwiched between two quartzites. The middle Ordovician Kinnikinic quartzite overlies the Ella Dolomite and a Lower Ordovician or older feldspathic quartzite (Clayton Mine Quartzite). There is a disconformity between the Ella Dolomite and the Clayton Mine Quartzite. **Figure 5** shows the geology of the Clayton area, as mapped by Hobbs et al. (1991).

**Figure 5:** Geology of the Clayton area (from Hobbs et al., 1991).

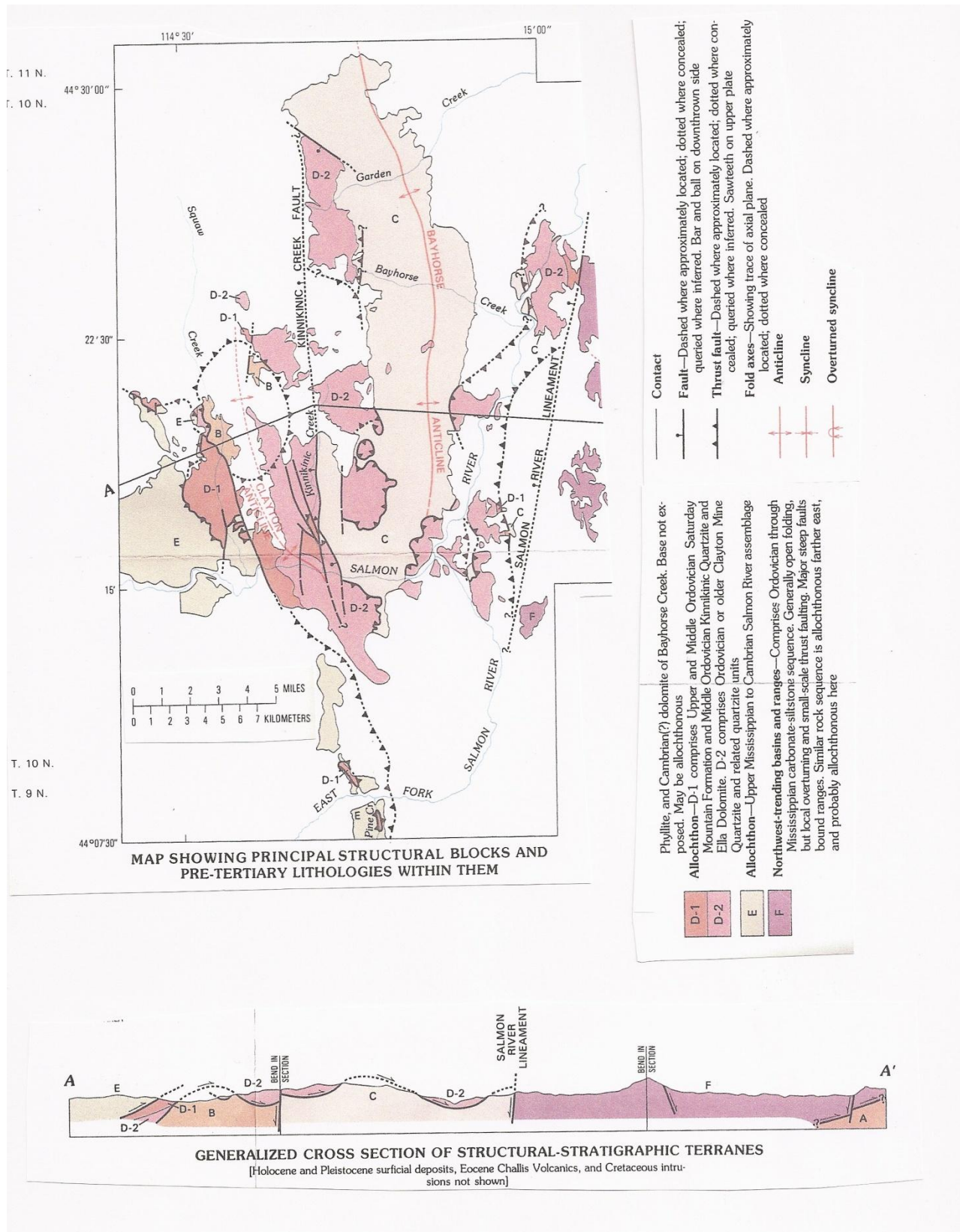


In the vicinity of the Clayton Silver Mine, the Paleozoic rocks have been folded into a northwest trending asymmetrical anticline (the Clayton anticline) and mineralization is best developed on the eastern flank of the fold. Faults, mapped by Hobbs et al. (1991), include regional thrust faults, high angle reverse and normal faults, which are parallel to the structural trend of the rocks, and high angle strike-slip faults. The rocks in the Clayton Silver Mine lie below the regional thrust faults, which may have served as a trap for hydrothermal fluids (Hobbs, 1985). Longitudinal faults are mineralized. Strike-slip faults cut the existing structures as well as the anticline (Hillman, 1986).

**Figure 6** shows the terrane map in the vicinity of the Clayton Silver Mine as interpreted by Hobbs et al. (1991). The figure also illustrates the location of the Clayton anticline.



**Figure 6:** Terrane map of the Clayton Mine area (from Hobbs et al., 1991).



The mineralization in the Clayton deposit, in order of decreasing abundance, includes galena, pyrite, sphalerite, tetrahedrite, chalcopyrite, pyrargyrite, and arsenopyrite (Hillman, 1986). Gangue minerals include siderite, quartz, and calcite. Worl et al. (1989) state that the deposits in the Paleozoic sedimentary terrane are within or closely related to high-angle faults and are mainly replacements along fractures and bedding planes of the calcareous rocks. The minerals occur as disseminations, clots and lenses. The individual mineralized deposits are generally tabular and vary in size but none are larger than a few thousand tons (Worl et al., 1989). They also state that the assessment criteria for such deposits are the presence of carbonates, presence of high-angle faults or fractures, an indication of base- or precious-metal mineralization, and the presence of hypabyssal igneous bodies (also along high angle faults). There is only one small gabbroic intrusion in the vicinity of the Clayton Silver Mine (Hobbs et al., 1991); all other criteria are met. Hobbs (1985) suggests that there is a close relationship between Cretaceous and Tertiary intrusions and many of the precious- and base-metal deposits in the Paleozoic rocks in the area. Metals, likely transported by hydrothermal fluids in meteoric convection cells, precipitated from solution in suitable sites. In the Clayton area, these hydrothermal fluids were precipitated in highly fractured zones of the Ella Dolomite and replacement of the host rock by siderite. Panneerselvam et al. (2006) investigated the source of metals in base and precious metal deposits of central Idaho using lead isotopic data. The results of their study and prior fluid inclusion and stable isotope studies support a genetic model that involves shallow crustal sources for metals and sulfur, mobilized by meteoric water-dominated hydrothermal systems. They further subdivide the deposits in which the metals were derived from an igneous source into Carriestown and non-Carriestown types. The Clayton Silver Mine is characterized as a Carriestown type derived from middle crustal sources.

## **8.0 DEPOSIT TYPES**

Economic minerals mined in the Bayhorse Mining District occur in mineralized shear zones or as replacement lenses in calcareous rocks. The host rocks from most of the mines in the district are the Ramshorn Slate and the Bayhorse Dolomite. Some of the deposits are associated with granitic intrusive rocks. Sulfides, such as galena, sphalerite, pyrite, tetrahedrite and chalcopyrite are found in the deposits. Both the galena and tetrahedrite are argentiferous (Ross, 1937). Fluorspar deposits have also been exploited in some of the mines.

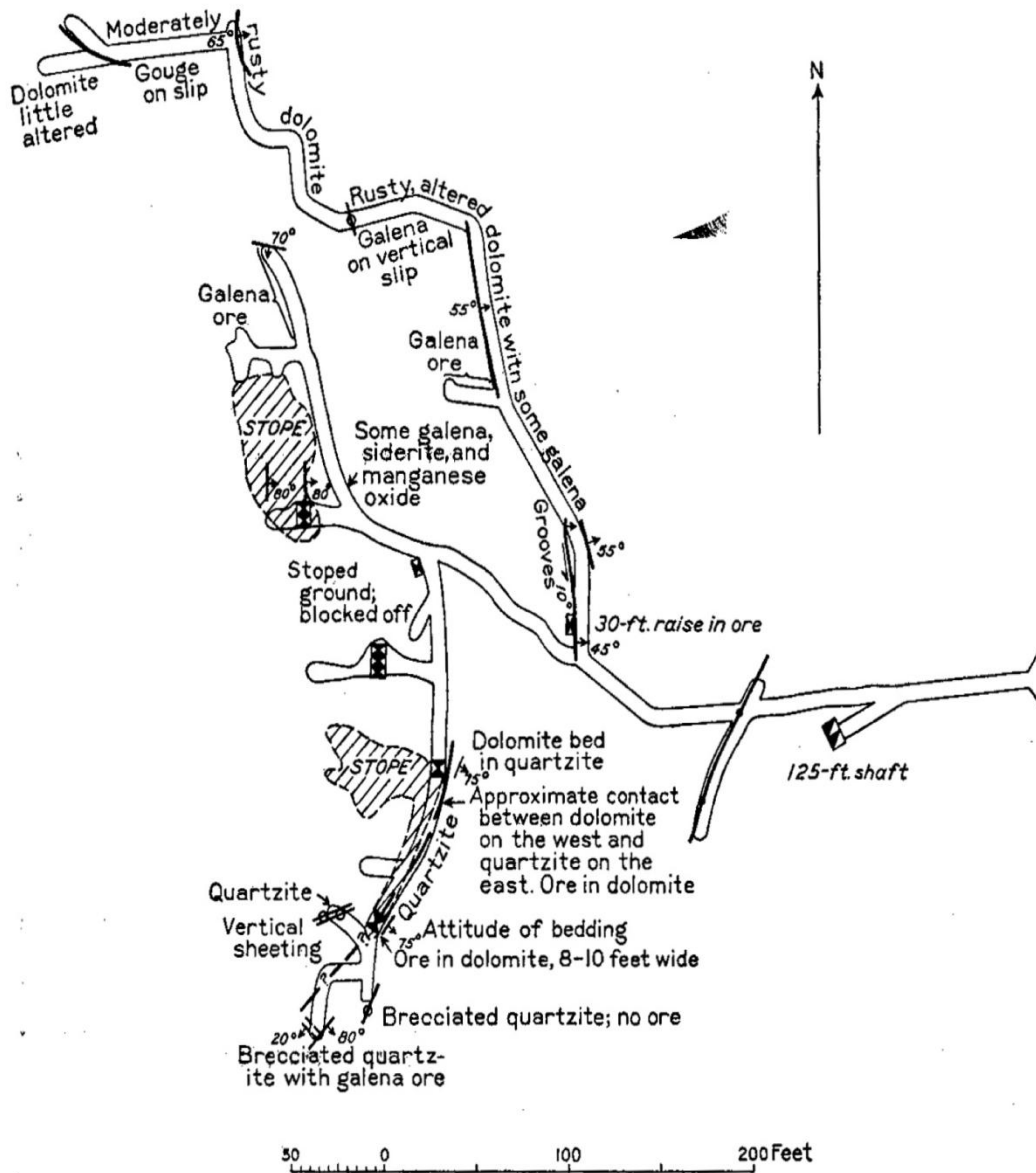
At the Clayton Silver Mine, Pb-Zn-Cu-Ag mineralization occurs in replacement and open space filling deposits, which show both structural and stratigraphic controls. The tabular mineralized zones are associated with shear zones that are parallel to the bedding of a quartz-rich horizon within the Ella Dolomite. Folding and faulting have altered the original nature of the mineralization. The mineralized shoots described by Hillman (1986) are characterized by galena, pyrite, sphalerite, tetrahedrite, chalcopyrite, pyrargyrite, and arsenopyrite, which are developed in a siderite gangue.

During the 50 or so years of operations, several mineralized areas have been developed within the Clayton Silver Mine. Fisher (1985) states that the Clayton Silver Mine is one of the best examples of a replacement deposit in carbonate rocks in the Challis 1° x 2° quadrangle.

## 9.0 EXPLORATION

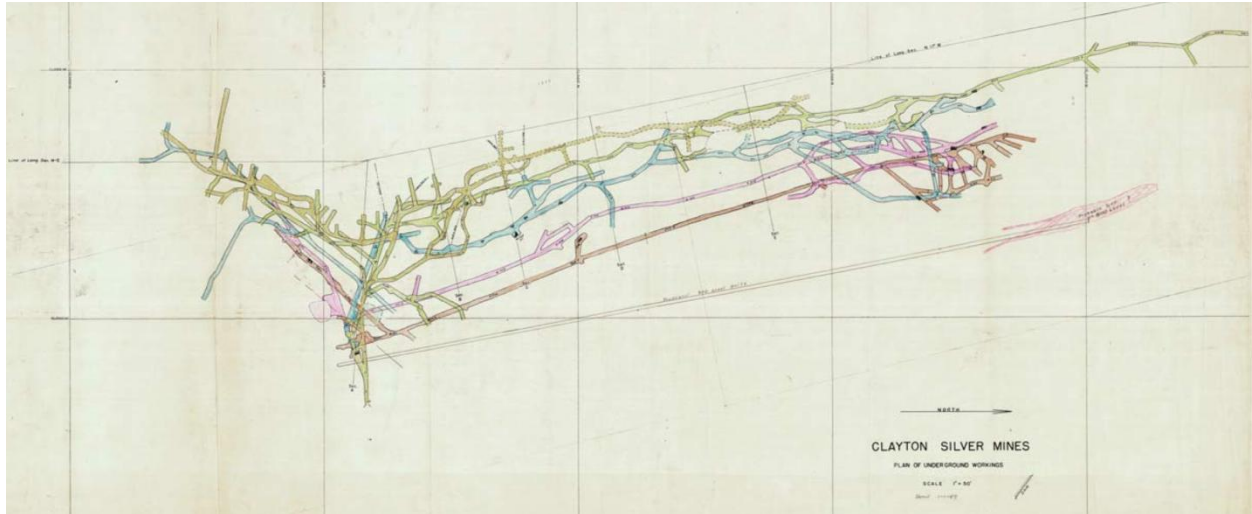
The Clayton Silver Mine, in 1935, at the time of Ross' (1937) investigation of the Bayhorse Mining District, was a branching tunnel over 1,200 ft. in length. A shaft was sunk to 124 ft. depth (Fig. 7). The deposit was worked for an additional 50 or so years and several mineralized areas were developed.

**Figure 7:** Geologic sketch map of the Clayton Silver Mine, September 1935 (Figure 12 from Ross, 1937, p. 138).

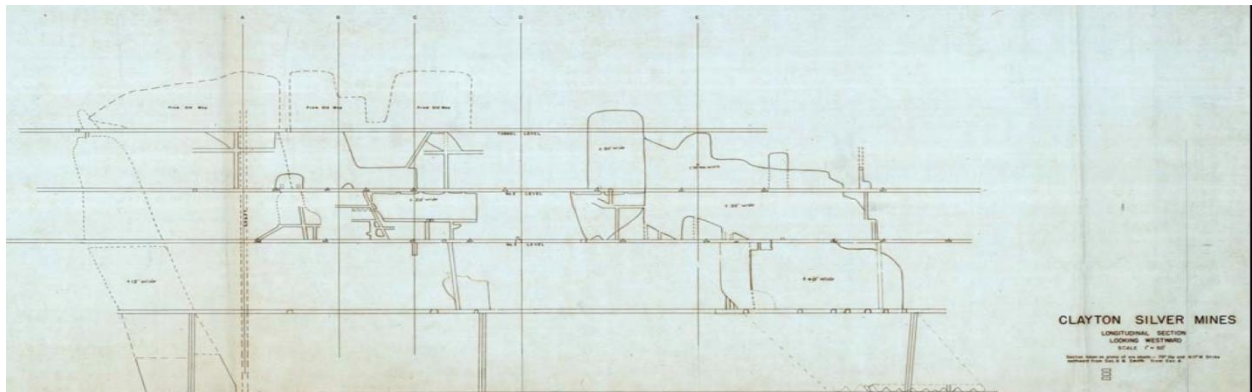


A DMEA (Defense Minerals Exploration Administration) contract in the amount of \$130,840 was awarded to the Clayton Silver Mine on July 19, 1957. This funding allowed continued work on the sinking of the main shaft. **Figure 8** shows the workings as of 1957 (DMEA docket no. 4569). **Figure 9** is a longitudinal section of the workings at this time.

**Figure 8:** Workings at the Clayton Silver Mine, 1957 (DMEA docket no. 4569).



**Figure 9:** Longitudinal section of the mine workings, 1957 (DMEA docket no. 4569).



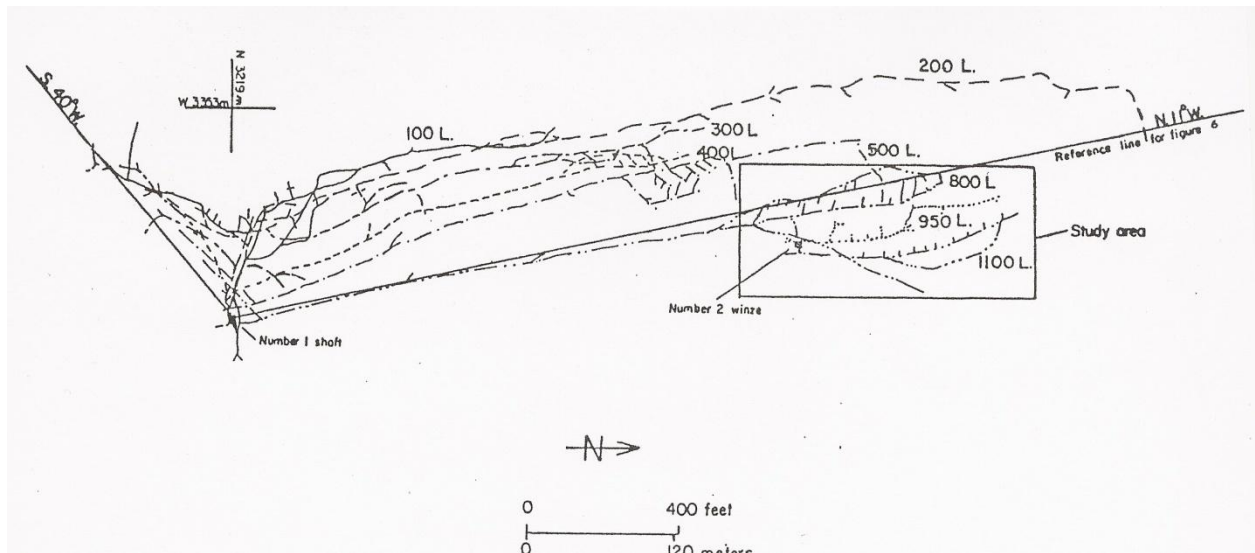
A winze (No. 2 winze) was completed in 1977 to access two lower levels of the mine (950 and 1,100 ft. levels) (Hillman, 1986). By the time of the mine's closure on May 24, 1986, the mine had been developed on eight levels connected by numerous raises and sublevels. Access to the underground workings at the time, were via the 918 ft. (280 m.) vertical shaft which intersects six levels to the deepest at the 800 ft. level and the No. 2 shaft noted above to access deeper levels.

Hillman (1986) researched the workings of the Clayton Silver Mine and produced a geologic map of approximately 4,760 ft. (1,450 m.) of underground drift on the north 800, 950 and 1,100 ft. levels. The maps were produced at a scale of 1:240 and included data from nearly 6,150 ft. (1,875 m.) of core from 37 diamond drill holes. The plan view and longitudinal section of the

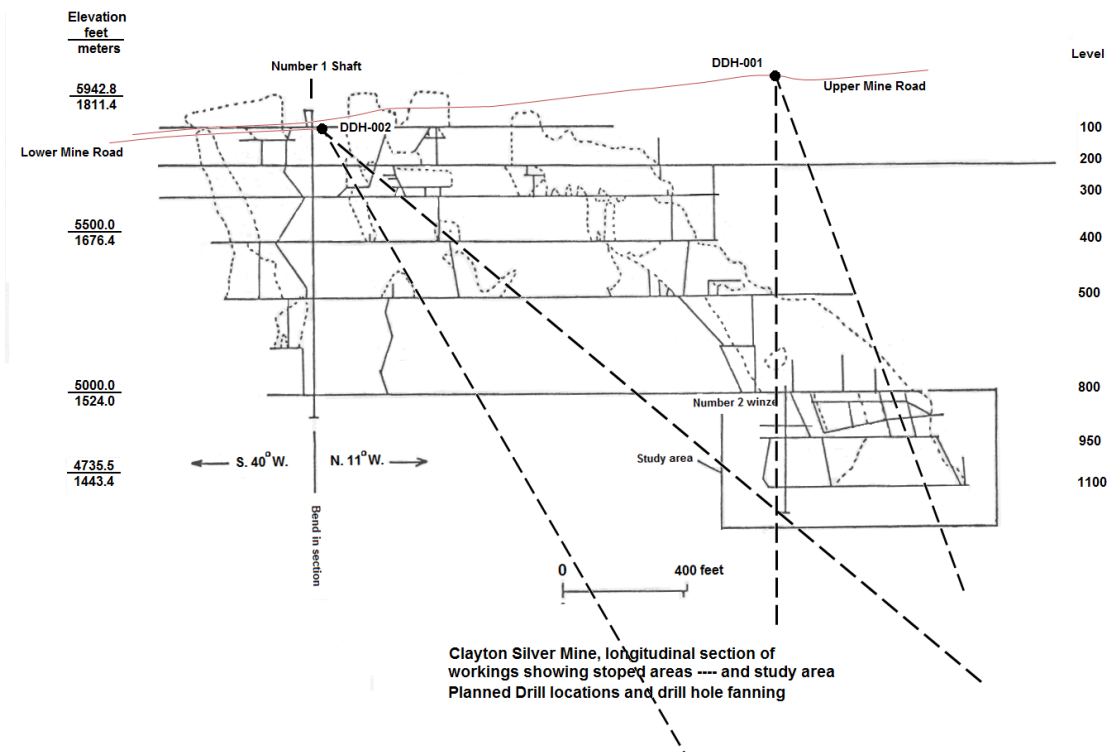


mine from Hillman (1986) are presented in **Figures 10 and 11**. **Figure 11** also illustrates the locations of proposed *Phase 1* drill holes and the trace of the topography (in red).

**Figure 10:** Clayton Silver Mine, plan view of underground workings showing the area studied by Hillman (1986) (Hillman, Figure 5).



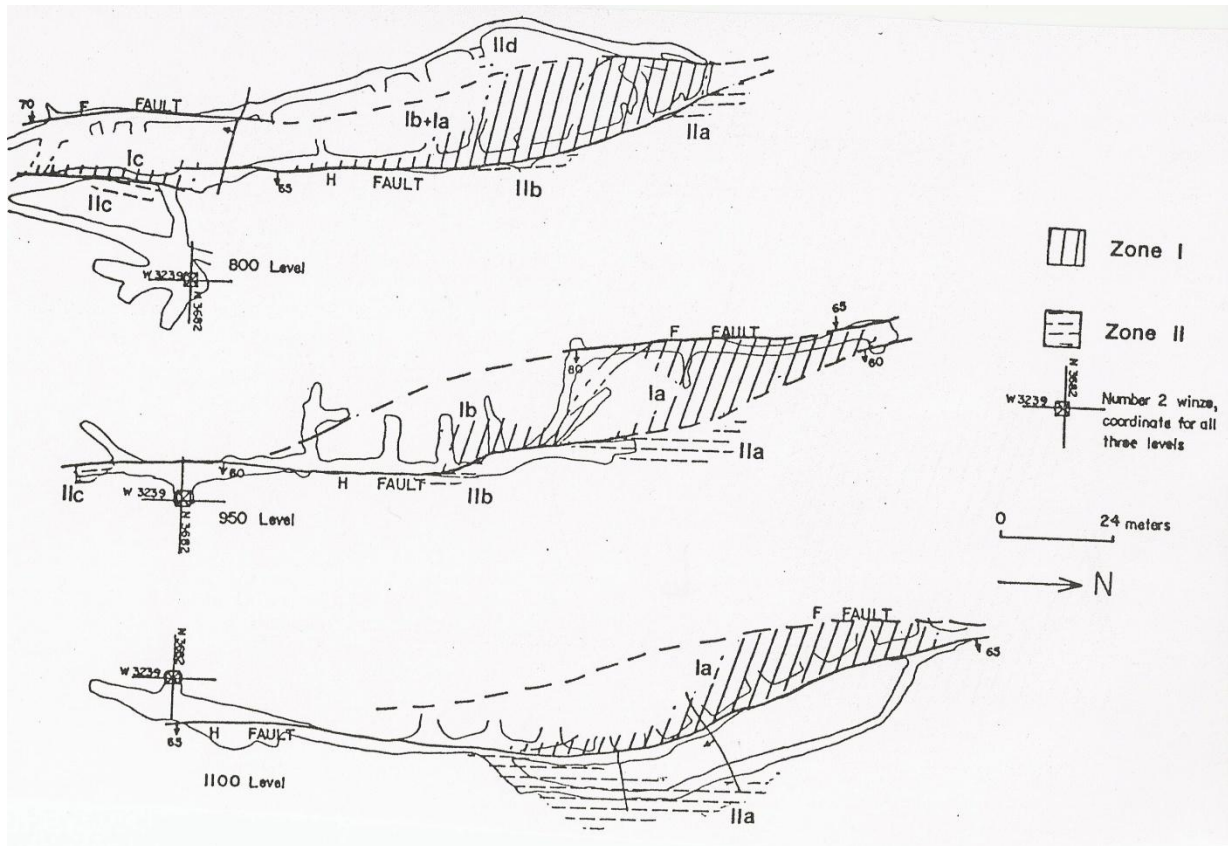
**Figure 11:** Clayton Silver Mine, longitudinal section of the underground workings showing stoped areas (dashed lines) and Hillman (1986) study area. (Hillman, Figure 6). The locations of proposed drill locations are also shown.



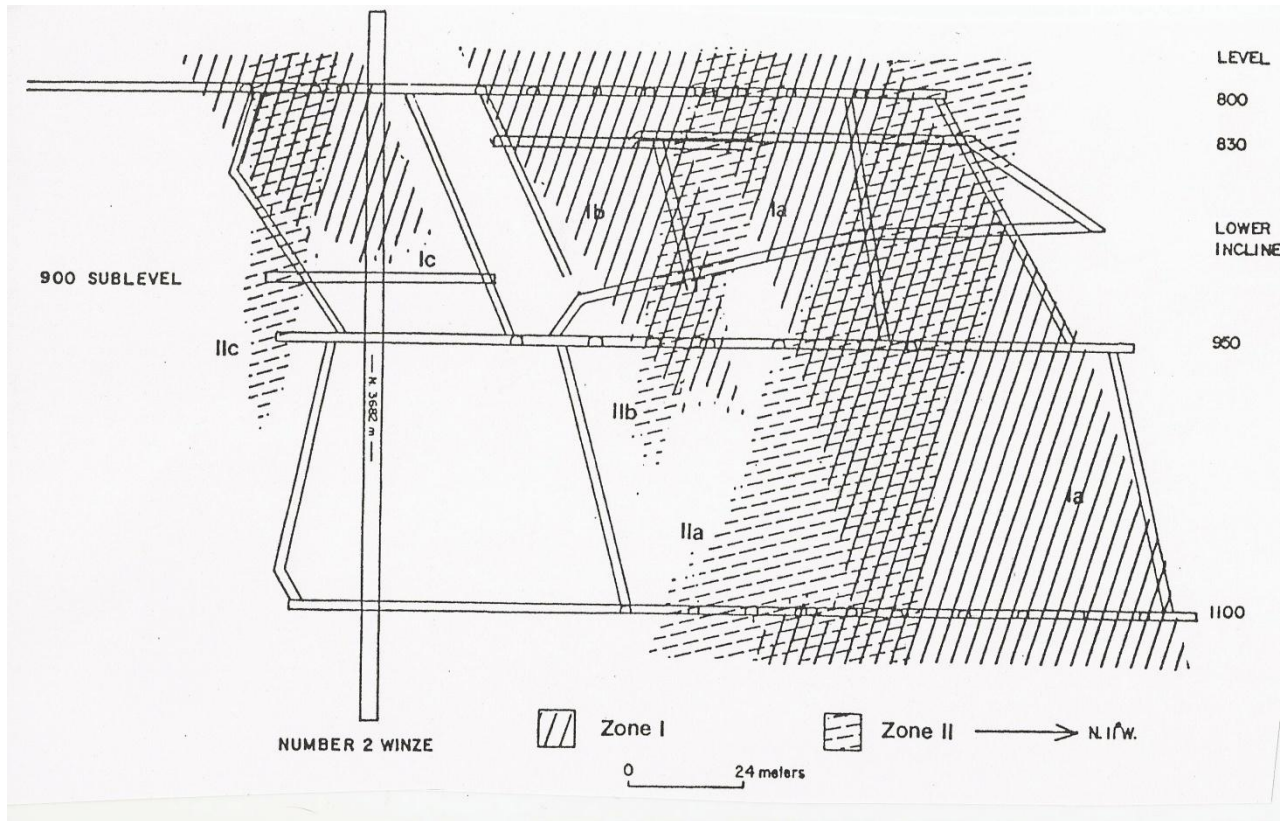


Hillman (1986) mapped and examined, as part of his Master's Thesis, rocks in one of two mineralized shear zones that were explored and developed at the mine. The Clayton shear zone, at depth, separates the mineralization into two zones, which Hillman (1986) called Zones I and II, with seven identified mineralized shoots (Ia, Ib, Ic in Zone I and IIa, IIb, IIc, IIc in Zone II). The Clayton shear zone developed post mineralization. **Figure 12** illustrates mineralization in plan view and **Figure 13** shows a longitudinal section (both figures are from Hillman, 1986).

**Figure 12:** Clayton Silver Mine with mineralization in plan view for the north 800, 950 and 1,100 ft. levels (Hillman, Figure 14).



**Figure 13:** Clayton Silver Mine longitudinal showing mineralized shoots projected to the hanging wall fault (Hillman, Figure 15 – see his text for details).



The two zones have similar mineralogy, but differ in terms of their structural orientation as described in Hillman (1986). At the time of his report, the mineralization in Zone I had been mined continuously to the 1,100 ft. level. He states that, based on drill intersections, it is known to extend at least 427 ft. (130 m.) below the 1,100 ft. level. The strike length of the mined zone averages 410 ft. (125 m.) for all levels and the width is variable due to the nature of replacement. The economic potential of Zone II had only recently been recognized at the time of Hillman's work. Massive sulfide lenses associated with areas of massive siderite replacement in Zone II (similar to those in Zone I) yielded the highest silver grades encountered by Hillman (1986).

## 10.0 DRILLING

To date, CMX Gold & Silver Corp. has not done any drilling on the Clayton Silver Mine Exploration Project. Recommendations in this report are to procure complete drilling records from previous ownership (if they exist) and to initiate an exploratory drilling program to elucidate the extent of mineralization beyond the 1,100 ft. level, both to the north and to depth. Historical drilling records from the 1960s are discussed below. Later records of drilling have not been located.

## 10.1 HISTORICAL DRILLING RECORDS

At the time of this writing, some historical drill records have been located in published docket, specifically OME docket no. 6324; information collected about mining properties including applications, reports, results, correspondence, maps, etc. Dockets for mining properties in Idaho (for companies that applied for exploration assistance from the Federal Government) are available through the U.S.G.S. at <http://minerals.usgs.gov/dockets/index.htm> for the years 1950 - 1974.

A 1970 report provided to the Office of Minerals Exploration (Spokane), includes a table of drilling operations that took place in 1964 and 1965 to explore a shear zone in the dolomite for silver-bearing mineralization on the 800 ft. level of the Clayton Silver Mine. Drilling began in April of 1964 to the projected 1,500 ft. level. **Figure 14** shows the drill hole data extracted from this report and **Figure 15** shows the locations of the drill holes. Eleven holes penetrated the mineralized zone below the 800 ft. level at the 1050, 1175, 1,300 and 1,400 ft. levels. The mineralized zones penetrated exhibited various widths and silver values. Drilling showed a zone containing ~600,000 tons between the 800 and 1,300 ft. levels. An extraction from the OME report is as follows:

*On the 800 level the zone is 500 feet long and 28 feet wide. On the 1050 level the zone is 400 feet long and 30 feet wide. The weighed silver value between these levels is 4.74 ounces per ton. The ore zone on the 1175 level is 450 feet long and 28 feet wide. The silver value between the 1050 and 1175 levels is calculated at 3.01 ozs. per ton. The ore zone on the 1300 level is 350 feet long and 18 feet wide. The silver value between the 1175 and 1300 levels is calculated at 2.38 ounces per ton. It appears from these data that the silver values are diminishing with depth. It might be the ore is steepening up on its rake to the north and that there are better values to the south of the most southerly holes drilled. There is special interest in hole 1501-A which penetrates the ore zone at the 1425 level. This hole shows a width at that level of 22 feet with assays of 4.07 ozs. silver, 5.75% lead and 5.37% zinc. The zone had apparently flattened in dip somewhat between 1300 and 1425.*

**Figure 14:** Data extracted from a 1970 report showing diamond drill hole data from a drilling operation done in 1964 and 1965 (OME docket no. 6324). Drill hole locations are shown in Figure 15.

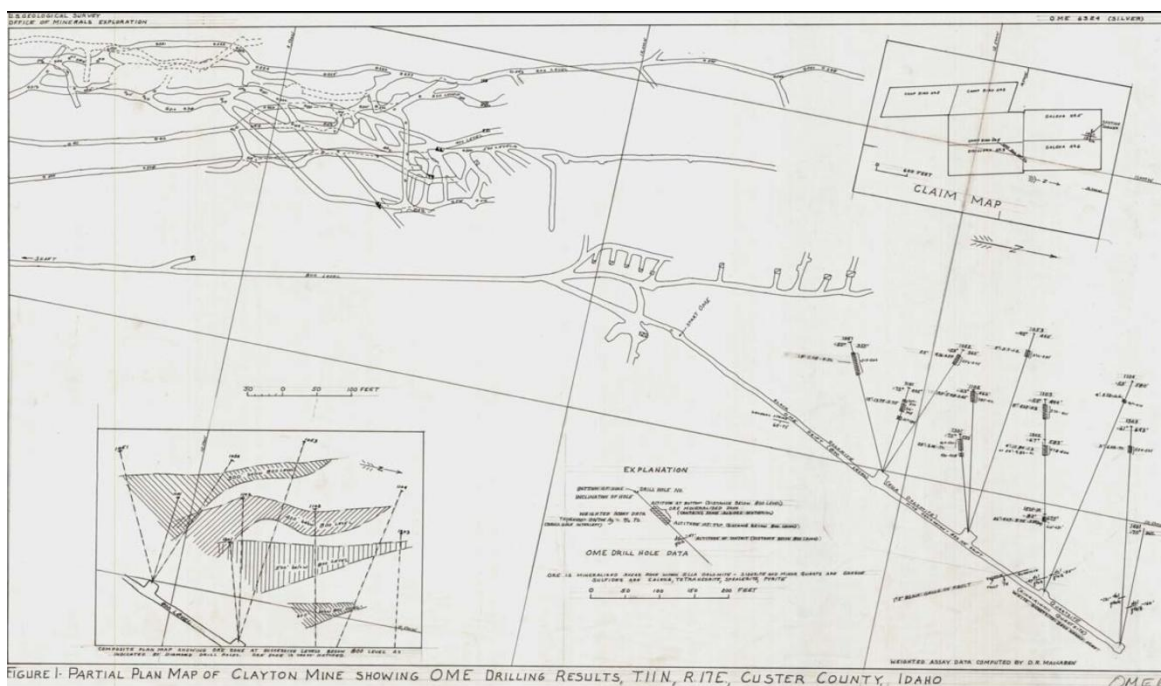
Table 1 - Diamond Drill Hole Data

Hole No.	Start Date	Finish Date	Length Feet	Bearing Angle	Inclination Angle	Ore Zone Intercept <sup>1/</sup>		Normal Thickness <sup>2/</sup> of Ore Zone Feet
						Hanging Wall Feet	Footwall Feet	
1101	4/10/-	5/5/64	445	N. 85° W.	-73°	281	390	79
1052	5/6/-	5/21/64	360	N. 70° W.	-53°	318	345	22
1051	5/25/-	6/23/64	355	S. 65° W.	-55°	261	314	46
1053	6/25/-	7/22/64	440	N. 84° W.	-45°	391	403	12
1102	7/23/-	8/20/64	460	S. 81° W.	-63°	431.5	463	23
1301			553	S. 73-1/2° W.	-75°	498	538	24
1302	9/23/-	10/26/64	583	S. 79° W.	-67°	524	567.5	32
1103			494	S. 79° W.	-55°	454	485	31
1104			580	N. 80° W.	-53°	465	510	45
1303	12/11/64	1/12/65	643	S. 81° W.	-61°	598	613	13
1401	1/14/65	2/8/65	Inc.	Due W.	-70°	Hole abandoned at 512 -- too high water pressure		
1500-A	Drilled in March, 1965		675	S. 70° W.	-80°	611	642	18

<sup>1/</sup> Ore zone characterized by siderite and quartz gangue. In some holes sulfides were found in rock on hanging wall of indicated ore zone.

<sup>2/</sup> Measured at right angles to the assumed dip of the ore zone (data from Operator's monthly reports).

**Figure 15:** 1964 and 1965 drill hole locations to explore the mineralization below the 800 ft. level of the Clayton Mine (OME docket no. 6324).



Drill core logs, assays and averages are available in the OME docket no. 6324. Additional drilling was done in the 1980s, and drill locations are plotted on Plate 3 of Hillman (1986). At the time of this writing, these drill records and assays have not been located.

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

To date, no samples have been collected on the Clayton Silver Mine site by CMX Gold & Silver Corp., or its contractors. Future sampling, analyses, and quality control activities will be in compliance with standard industry best practice methods.

## **12.0 DATA VERIFICATION**

To date, there has been no sampling by CMX Gold & Silver Corp., or its contractors on the Clayton Silver Mine site. The author visited the property on December 20 – 21, 2010 as noted in the Introduction. No samples were collected from the underground workings as they are currently flooded.

Interpretations, conclusions and recommendations presented herein are largely based on historical records reported by Mitchell (2010) and references therein, geologic mapping (Hobbs et al., 1991) as well as a Master's thesis presented by Hillman (1986) under the direction of Drs. Mutschler and Snook at Eastern Washington University in Cheney, WA. Hillman (1986) used data obtained while working at the mine and worked under close guidance with operators of Clayton Silver Mines, Inc. Hillman (1986) indicated that future goals of the mine operators were to explore below the 1,100 ft. level where drill intersections indicate that the most recently mined area is known to extend at least another 427 ft. (130 m.).

Future quality control measures and data verification will be in compliance with standard industry best practice methods.

## **13.0 MINERAL PROCESSING AND METALLURGICAL TESTING**

At the time of this report, no mineral processing or metallurgical testing has been done by CMX Gold & Silver Corp. or its contractors. This is an early phase of exploration to initiate a drilling program.

As part of his Master's Thesis, Hillman (1986) collected numerous grab, chip, and core samples and analyzed them to define limits and grade of mineralization. He analyzed samples for silver and lead and some were also checked for zinc and copper. Grades calculated from production and smelter records (1934 – 1935) show approximate average grades of 112.13 g/mt Ag, 1.9% Pb, 0.6% Zn, 0.3% Cu and 0.03 ppm Au (Hillman, 1986). Grades calculated by Hillman (1986) for 1982 – 1985 are 98.06 g/mt Ag, 0.90% Pb, 0.18% Zn, 0.04% Cu, and 0.03 ppm Au. Mining of specific mineralized shoots in the Clayton shear zone based on Hillman's work increased grades for silver and lead to 137.00 g/mt Ag and 1.0% Pb.

## **14.0 MINERAL RESOURCE ESTIMATES**

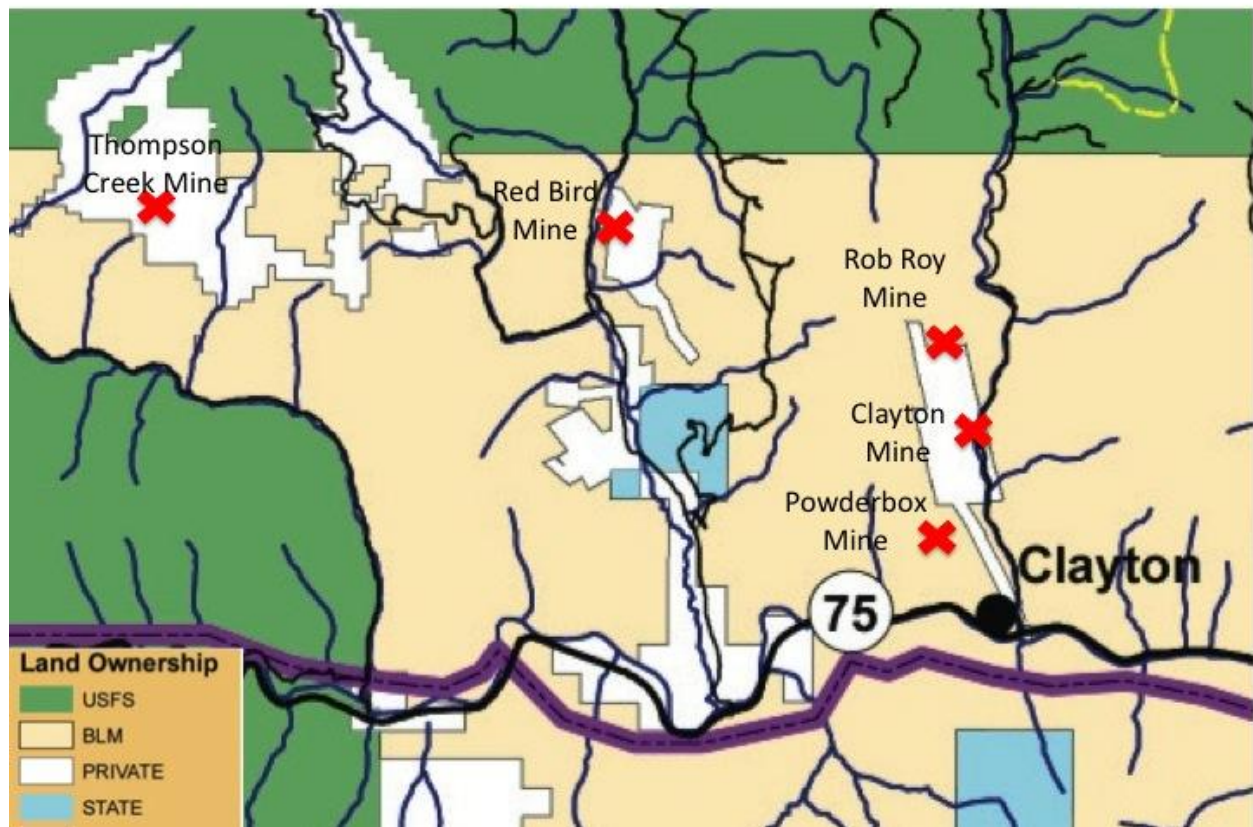
To date, no mineral resource has been estimated for the Clayton Silver Mine Exploration Project by CMX Gold & Silver Corp. or its contractors. This is an early phase of exploration to initiate a drilling program.



## 23.0 ADJACENT PROPERTIES

The Clayton Silver Mine Exploration property is surrounded by BLM administered lands. There are three other abandoned mines in the vicinity of the Clayton Silver Mine including: the Powderbox Mine (in the Ella dolomite), the Rob Roy Mine (in the Clayton Mine quartzite and Ella dolomite), and the Red Bird Mine (in the Saturday Mountain Formation, on private property) (**Fig. 16**). The Rob Roy mine is located directly north of the Clayton Silver Mine site on private land. The operational Thompson Creek Mine (molybdenum) is located to the northwest of the Clayton Silver Mine. East of Clayton, two other abandoned mines include the Compressor Mine and the Williams, Rohlds and Ernst Mine (in the Ramshorn slate) (not shown on **Fig. 16**). The following information is not necessarily indicative of the mineralization on the Clayton Silver Mine Exploration Property, which is the subject of this report.

**Figure 16:** Abandoned and operational mines in the vicinity of the Clayton Silver Mine.

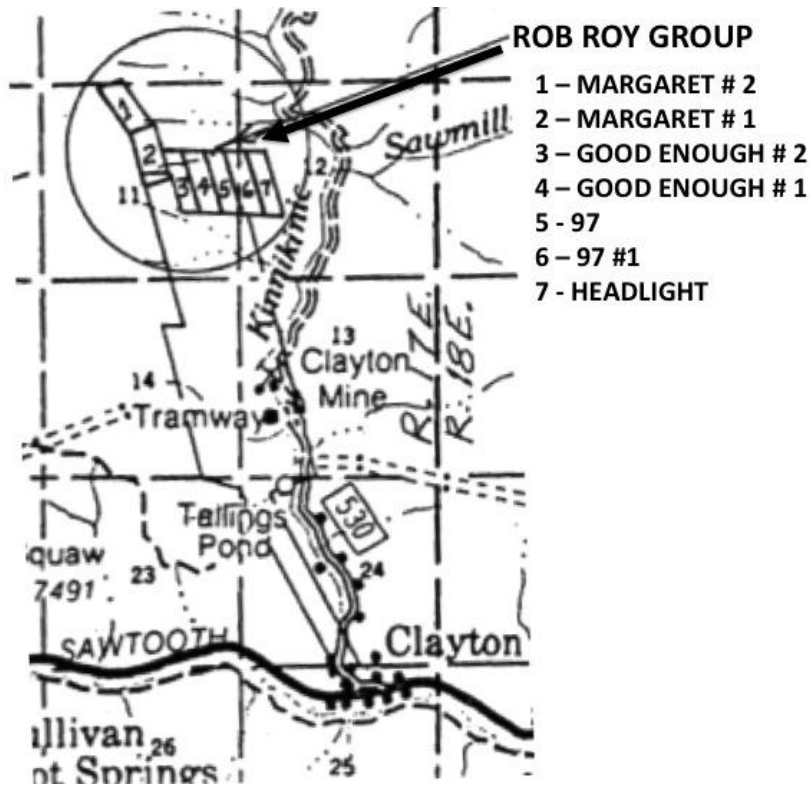


### 23.1 ROB ROY MINE

The Rob Roy Mine is located on the “97” claim of the properties illustrated in **Figure 17** and consists of several underground workings. A report by F.W. Christiansen (consulting geologist; date of report unknown) indicates that the veins and replacements along beds exposed in the adit and an inclined shaft range from a few inches to 3 ft. in thickness. Economic minerals include

argentiferous galena, sphalerite, tetrahedrite, chalcopyrite and polybasite with siderite and other gangue minerals replaced by pyrite. Some barite and secondary supergene enrichments of cerussite, anglesite, malachite, azurite, covellite and limonite are also present. The veins are apparently in thin-bedded slates and quartzites (Rob Roy Slate) in the upper plate of the Clayton Thrust. The existence of the more favorable Ella Dolomite in the lower plate was confirmed by subsequent drilling at the Rob Roy Mine. This drill hole (T.D. 2,263 ft.) encountered widespread mineralization (similar to the mineralization on the Clayton Silver Mine property) in the Kinnikinic Quartzite, Ella Dolomite and Clayton Mine Quartzite.

**Figure 17:** The Rob Roy Group of claims north of the Clayton Silver Mine.



### 23.2 REDBIRD MINE

The Redbird Mine is located approximately 28 miles northeast of Stanley, Idaho, 7 miles northwest of Clayton, Idaho and 4 miles north of State Highway 75 and the Salmon River (**Fig. 16**). The property is composed of fifteen patented lode mining claims and three patented mill site claims and encompasses approximately 300 acres. The site and remaining structures are located at an elevation of 5,900 ft. The uppermost workings are located at 7,000 ft.

The Redbird deposit was discovered in 1878 and was extensively worked beginning in 1884. The mine was opened in 1912 by the Idaho Mining & Smelting Company, but they ultimately failed. In 1916 and 1917, the Success Mining Company operated the property. Property lessees worked the mine periodically through 1924 but, again with little success. The Ford Motor Company purchased the Redbird and several nearby properties in 1926 and initiated extensive

exploration (diamond drilling, drifting, cross-cutting on the 3<sup>rd</sup> and 9<sup>th</sup> levels. American Smelting & Refining operated the mine through World War II and the Monangahela-Mount Washington Company of Helena, Montana leased the property until 1946. The latter recovered 1,500 tons of oxidized mineralization. The Red Bird Mining and Milling Company (Spokane, WA) acquired the property in 1947. By 1948, Tailleur (1948) estimated production at approximately 33,000,000 pounds of lead and 1,800,000 ounces of silver. The Bunker Hill Company purchased Redbird in 1957 and operated the mine via lessees until 1995. In the 1980s a shaft was sunk to the 10<sup>th</sup> level. Silver assays showed 50 ounces or more per ton from mineralization retrieved from the 9<sup>th</sup> and 10<sup>th</sup> levels. Redbird Mining Company LLC acquired the property in 1995.

The Redbird Mine is located within the Bayhorse anticline (Ross, 1937). The Redbird is comprised of lead-silver replacement deposits, which are found within shear zones along the contacts between the Ella Dolomite and the overlying South Butte quartzite. Five mineralized zones were identified by Umpleby (1913). One called the Potato Patch shoot, measured 60 to 80 ft. long and 20 to 20 ft. wide. Additional shoots were identified on the 2<sup>nd</sup>, 7<sup>th</sup> and 9<sup>th</sup> levels. According to Tailleur (1948) the zones are “localized along a steeply dipping and partially overturned section of the west limb of the Clayton anticline”.

### **23.3 THOMPSON CREEK MINE**

The location of the Thompson Creek Mine is noted in **Figure 16**. The Thompson Creek deposit was discovered in 1968 by Cyprus Mineral Corporation who began construction on the site in 1981. Open pit mining commenced here in 1983, which lasted until 1992 when operations were suspended. Cyprus merged with Amax, Inc. and the property was sold in 1993 to Thompson Creek Metals Company, LLC. Operations resumed in 1994. Blue Pearl Mining Ltd. acquired Thompson Creek Metals Company, LLC in 2006 and Blue Pearl Mining Ltd. changed its name to Thompson Creek Metals Company, Inc. in 2007.

Thompson Creek is a primary molybdenum mine (porphyry molybdenum deposit – Endako-type) with an open pit, mill and tailings facility and is the fourth largest primary molybdenum mine in the world. Conventional open-pit mining methods are used to move up to 100,000 tons of waste rock and ore a day. Drilling beside and below the ore body was done in 2008. New estimates for mineral resources and reserves are presented in the 2009 NI 43-101 compliant report available at <http://www.thompsoncreekmetals.com/i/pdf/Thompson-Creek-2009-Nov-4.pdf> prepared by Scott Wilson Roscoe Postle Associates, Inc. Thompson Creek produces 15 to 20 million pounds of molybdenum a year, representing 6% of the world supply.

## **24.0 OTHER RELEVANT DATA AND INFORMATION**

The EPA time-critical operation was completed in 2001 to stabilize mine tailings to prevent erosion into Kinnikinic Creek, control infiltration of water into tailings and seepage of water from tailings and to minimize wind erosion (EPA, 2001). This remediation was successful. The final report (EPA, 2002) indicates that actions taken resulted in the mitigation of wind erosion of the tailings pile after covering with an 8-inch layer of angular rock. As a result, the risk of human exposure to elevated concentrations of heavy metals via inhalation was greatly reduced. Furthermore, the action reduced the amount of fine tailings entering Kinnikinic Creek. The threats to human health and the environment have been greatly reduced.



## 25.0 INTERPRETATION AND CONCLUSIONS

The Clayton Silver Mine Exploration Project represents an early stage exploration target considered prospective for the discovery of lead and silver mineralization. The area is well constrained with geologic mapping (e.g., Hobbs et al., 1991) and underground workings are developed. The Clayton Silver Mine was exploited for over fifty years and could be brought back on-line. The Clayton Silver Mine Exploration Project will be focused on exploring the Clayton structures in the currently unexplored region below the 1,100 ft. level of the mine. Hillman (1986) stated that, based on drill intersections, the most recently mined area is known to extend at least 427 ft. (130 m.) below the 1,100 ft. level. The exploration plan is divided into two phases, *Phase 1* and *Phase 2*, which are discussed below.

## 26.0 RECOMMENDATIONS

Future mine owners should procure all drill records and records pertaining to mineralization already discovered and exploited in the Clayton Silver Mine that are available from previous ownership. The author recommends the initiation of the *Phase 1* drilling program to examine rocks not yet explored below the 1,100 ft. level of the Clayton Silver Mine in order to estimate the extent of the mineralization beyond the 1,100 ft. level. **Figures 3** and **11** illustrate the proposed drill locations. The Idaho Department of Water Resources must be notified prior to commencement of any mining or milling operations or prior to deposition of any tailings on the reclaimed impoundment. Drilling on private ground can likely begin immediately.

### 26.1 BUDGET

The Clayton Silver Mine Exploration Project is a 100% venture by CMX Gold & Silver Corp. The Clayton Silver Mine Exploration Project plan will focus on the Clayton anticline below the 1,100 ft. level of the Clayton Mine that has been relatively unexplored and not part of the Clayton production. The exploration plan is divided into two phases, *Phase 1* and *Phase 2*.

*Phase 1* will consist of geological analysis and data recovery of existing geological/geophysical data and recovery of old records left at the site or in the hands of former employees. Some data is available in the DMEA and OME dockets, but retrieval of drill records from the 1980s would be beneficial. It will also include exploration, geologic data analysis and drill hole targeting on the patented property. Drilling will include approximately 3 drill holes (1,500 – 2,500 ft. each maximum) on the Clayton patented property representing 5,400 ft. of initial drilling (**Fig. 11**). The drilling and assaying and initial geological work will be approximately a 6 month effort.

*Phase 2* (following successful completion of *Phase 1*) proposes to drill 8 additional holes to delineate probable reserves for the mine, representing 20,000 ft feet of additional in-field exploration drilling.

**Tables 2 and 3** illustrate the proposed program budgets for the project designed to reach the objectives outlined above. All amounts are in US dollars.

**Table 2:** Proposed Clayton Silver Mine Exploration Project budget – *Phase 1.*

<b>Exploration Office</b>	<b>\$/mo</b>		
<b>Project Manager</b>	<b>12500</b>	<b>5</b>	<b>62500</b>
<b>Geologist</b>	<b>8000</b>	<b>5</b>	<b>40000</b>
<b>Geologist - Assistant</b>	<b>4000</b>	<b>5</b>	<b>20000</b>
<b>Expense Item</b>	<b>Unit Cost</b>	<b>QTY</b>	<b>Amount</b>
Field/travel	\$10,000	1	\$10,000
Field vehicles	\$5,000	1	\$5,000
Geochemical samples (\$/sample)	\$50	100	\$5,000
Metallurgy/QA	\$15,000	1	\$15,000
Geologist (\$/mo) – Consulting	\$2,000	2.5	\$5,000
Field assistants (\$/mo)	\$1,500	2.5	\$3,750
Environmental audit/permits	\$5,000	1	\$5,000
Drill road/site preparation (Hours)	\$90	100	\$9,000
Road Maintenance	\$8,000	1	\$8,000
Gyro, drill hole survey	\$10,000	1	\$10,000
Drilling Mobilization/ Demobilization	\$5,000	2	\$10,000
Drilling (target footage, \$/ft),	\$130	5400	\$702,000
Geochem Assays (ICP & Fire Assay)	\$75	1000	\$75,000
Aerial photography	\$0	0	\$0
Surface access agreement	\$5,000	1	\$5,000
			<b>\$996,250</b>

**Table 3:** Proposed Clayton Silver Mine Exploration Project budget – *Phase 2.*

<b>Exploration Office</b>	<b>\$/mo</b>		
<b>Manager</b>	<b>12500</b>	<b>12</b>	<b>150000</b>
<b>Geologist</b>	<b>8000</b>	<b>12</b>	<b>96000</b>
<b>Geologist - Assistant</b>	<b>5000</b>	<b>12</b>	<b>60000</b>
<b>Expense Item</b>	<b>Unit Cost</b>	<b>QTY</b>	<b>Amount</b>
Field/travel	\$10,000	3	\$30,000
Field vehicles	\$5,000	1	\$5,000
Geochemical samples (\$/sample)	\$50	100	\$5,000
Metallurgy/QA	\$15,000	1	\$15,000
Geologist (\$/mo) – Consulting	\$2,000	6	\$12,000
Field assistants (\$/mo)	\$1,500	6	\$9,000
Environmental audit/permits	\$5,000	1	\$5,000
Drill road/site preparation (Hours)	\$90	100	\$9,000
Road Maintenance	\$8,000	1	\$8,000
Gyro, drill hole survey	\$10,000	1	\$10,000
Drilling Mobilization/ Demobilization	\$5,000	4	\$20,000
Drilling (target footage, \$/ft),	\$150	20000	\$3,000,000
Geochem Assays (ICP & Fire Assay)	\$75	4000	\$300,000
Aerial photography	\$5,000	0	\$0
Surface access agreement	\$15,000	1	\$15,000
			<b>\$3,749,000</b>

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