UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2022

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission file number: 333-150028

BUNKER HILL MINING CORP.

(Exact name of registrant as specified in its charter)

Nevada	**32-0196442**
(State of other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
82 Richmond Street East Toronto, Ontario, Canada	**M5C 1P1**
(Address of principal executive offices)	(Zip Code)

(416) 477-7771

(Registrant's Telephone Number, including area code)

SECURITIES REGISTERED PURSUANT TO SECTION 12(b) OF THE ACT: **None**

SECURITIES REGISTERED PURSUANT TO SECTION 12(g) OF THE ACT: **None**

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or 15(d) of the Exchange Act. Yes ☐ No ☒

Indicate by check mark whether the Registrant (1) has filed all reports required by Section 13 or 15(d) of the Securities Exchange Act of 1934 ("Exchange Act") during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the Registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See definition of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐	Accelerated filer ☐
Non-accelerated filer ☒	Smaller reporting company ☒
	Emerging Growth Company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the Registrant is a shell company, as defined in Rule 12b-2 of the Exchange Act. Yes ☐ No ☒

As of December 31, 2022, the aggregate market value of the voting and non-voting shares of common stock of the registrant issued and outstanding on such date, excluding shares held by affiliates of the registrant as a group, was $28,804,983.

Number of shares of Common Stock outstanding as of April 17, 2023: 256,099,173.

TABLE OF CONTENTS

Cautionary Note to U.S. Residents Concerning Disclosure of Mineral Resources

Bunker Hill Mining Corp. ("Bunker Hill," "we," "us," "our" or the "Company") is a U.S. domestic issuer for U.S. Securities and Exchange Commission ("SEC") purposes, it is required to report its financial results under U.S. Generally Accepted Accounting Principles ("U.S. GAAP"), and its shares of common stock trade on the Canadian Securities Exchange (the "CSE") and the OTCQB Venture Market. However, certain prior regulatory filings made in Canada contain or incorporate by reference therein certain disclosure that satisfies the additional requirements of Canadian securities laws, which differ from the requirements of United States' securities laws. Unless otherwise indicated, all resource estimates included in those Canadian filings, and in the documents incorporated by reference therein, had been prepared in accordance with Canadian National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* ("NI 43-101") and the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") classification system. NI 43-101 is a rule developed by the Canadian Securities Administrators which establishes standards for all public disclosure an issuer makes of scientific and technical information concerning mineral projects.

Canadian standards, including NI 43-101, may differ from the requirements of subpart 1300 of Regulation S-K ("S-K 1300"). Thus, resource information contained, or incorporated by reference, in the Company's Canadian filings, and in the documents incorporated by reference therein, may not be comparable to similar information disclosed by companies reporting mineral reserve and mineral resource information under S-K 1300.

The terms "mineral reserve," "proven mineral reserve" and "probable mineral reserve" are Canadian mining terms as defined in accordance with NI 43-101 and CIM standards. Pursuant to S-K 1300, the SEC now recognizes estimates of "measured mineral resources," "indicated mineral resources" and "inferred mineral resources." In addition, the SEC has amended its definitions of "proven mineral reserves" and "probably mineral reserves" to be substantially similar to the corresponding standards of the CIM.

Investors are cautioned that while terms are substantially similar to CIM standards, there are differences in the definitions and standards under S-K 1300 and the CIM standards. Accordingly, there is no assurance any mineral reserves or mineral resources that the Company may report as "proven reserves," "probable reserves," "measured mineral resources," "indicated mineral resources" and "inferred mineral resources" under NI 43-101 will be the same as the reserve or resource estimates prepared under the standards adopted under S-K 1300.

Investors are also cautioned that while the SEC now recognizes "measured mineral resources," "indicated mineral resources" and "inferred mineral resources," investors should not assume that any part or all of mineral deposits in these categories will ever be converted into mineral reserves.

Mineralization described using these terms has a great amount of uncertainty as to their existence, and great uncertainty as to their economic and legal feasibility. It cannot be assumed that all or any part of an "measured mineral resource," "indicated mineral resource" or "inferred mineral resource" will ever be upgraded to a higher category. Under Canadian rules, estimates of inferred mineral resources may not form the basis of feasibility or pre-feasibility studies, except in rare cases. Investors are cautioned not to assume that all or any part of an inferred mineral resource exists or is economically or legally mineable. Disclosure of "contained ounces" in a resource is permitted disclosure under Canadian regulations; however, the SEC normally only permits issuers to report mineralization that does not constitute "reserves" by SEC standards as in place tonnage and grade without reference to unit measures.

PART I

ITEM 1. BUSINESS

Our Business

Overview

The Company's sole focus is the development and restart of its 100% owned flagship asset, the Bunker Hill mine (the "Mine") in Idaho, USA. The Mine remains the largest single producing mine by tonnage in the Silver Valley region of northwest Idaho, producing over 165 million ounces of silver and 5 million tons of base metals between 1885 and 1981. The Bunker Hill Mine is located within Operable Unit 2 of the Bunker Hill Superfund site (EPA National Priorities Listing IDD048340921), where cleanup activities have been completed.

In early 2020, a new management team comprised of former executives from Barrick Gold Corp. assumed leadership of the Company. Since that time, the Company conducted multiple exploration campaigns, published multiple economic studies and Mineral Resource Estimates, and advanced the rehabilitation and development of the Mine. In December 2021, it announced a project finance package with Sprott Private Resource Streaming & Royalty Corp. ("Sprott"), an amended Settlement Agreement with the U.S. Environmental Protection Agency ("the EPA"), and the purchase of the Bunker Hill Mine, setting the stage for a rapid restart of the Mine.

In January 2022, with the closing of the purchase of the Bunker Hill Mine, the funding of the $8,000,000 Royalty Convertible Debenture and $6,000,000 Series Convertible Debenture, and the announcement of an Memorandum ("MOU")for the purchase of the Pend Oreille process plant from a subsidiary of Teck Resources Limited, the Company embarked on a program of activities with the goal of achieving a restart of the Mine. Key milestones and achievements from January 2022 onwards have included the closing of the purchase of the Pend Oreille process plant, the demobilization of the process plant to the Bunker Hill site, the completion of demolition activities at the Pend Oreille site, a Prefeasibility Study envisaging the restart of the Mine, and the completion of the primary portion of the ramp decline connecting the 5 and 6 Levels of the Bunker Hill Mine.

The Company was incorporated for the initial purpose of engaging in mineral exploration activities at the Mine. The Company has moved into the development stage concurrent with (i) purchasing the Mine and a process plant, (ii) completing successive technical and economic studies, including a Prefeasibility Study, (iii) delineating mineral reserves, and (iv) conducting the program of activities outlined above.

Lease and Purchase of the Bunker Hill Mine

The Company purchased the Bunker Hill Mine in January 2022, as described below.

Prior to purchasing the Mine, the Company had entered into a series of agreements with Placer Mining Corporation ("Placer Mining"), the prior owner, for the lease and option to purchase the Mine. The first of these agreements was announced on August 28, 2017, with subsequent amendments and/or extensions announced on November 1, 2019, July 7, 2020, and November 20, 2020.

Under the terms of the November 20, 2020 amended agreement (the "Amended Agreement"), a purchase price of $7,700,000 was agreed, with $5,700,000 payable in cash (with an aggregate of $300,000 to be credited toward the purchase price of the Mine as having been previously paid by the Company) and $2,000,000 in shares of common stock of the Company ("Common Shares"). The Company agreed to make an advance payment of $2,000,000, credited toward the purchase price of the Mine, which had the effect of decreasing the remaining amount payable to purchase the Mine to an aggregate of $3,400,000 payable in cash and $2,000,000 in Common Shares of the Company.

The Amended Agreement also required payments pursuant to an agreement with the EPA whereby for so long as the Company leases, owns and/or occupies the Mine, the Company would make payments to the EPA on behalf of Placer Mining in satisfaction of the EPA's claim for historical water treatment cost recovery in accordance with the Settlement Agreement reached with the EPA in 2018. Immediately prior to the purchase of the Mine, the Company's liability to EPA in this regard totaled $11,000,000.

The Company completed the purchase of the Bunker Hill Mine on January 7, 2022. The terms of the purchase price were modified to $5,400,000 in cash, from $3,400,000 of cash and $2,000,000 of Common Shares. Concurrent with the purchase of the Mine, the Company assumed incremental liabilities of $8,000,000 to the EPA, consistent with the terms of the amended Settlement Agreement with the EPA that was executed in December 2021 (see "EPA 2018 Settlement Agreement & 2021 Amended Settlement Agreement" section below).

EPA 2018 Settlement Agreement & 2021 Amended Settlement Agreement

Bunker Hill entered into a Settlement Agreement and Order on Consent with the EPA on May 15, 2018. This agreement limits the Company's exposure to the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") liability for past environmental damage to the mine site and surrounding area to obligations that include:

- Payment of $20,000,000 for historical water treatment cost recovery for amounts paid by the EPA from 1995 to 2017
- Payment for water treatment services provided by the EPA at the Central Treatment Plant ("CTP") in Kellogg, Idaho until such time that Bunker Hill either purchases or leases the CTP or builds a separate EPA-approved water treatment facility
- Conducting a work program as described in the Ongoing Environmental Activities section of this study

In December 2021, in conjunction with its intention to purchase the mine complex, the Company entered into an amended Settlement Agreement (the "Amendment") between the Company, Idaho Department of Environmental Quality, US Department of Justice and the EPA modifying the payment schedule and payment terms for recovery of historical environmental response costs at Bunker Hill Mine incurred by the EPA. With the purchase of the mine in early 2022, the remaining payments of the EPA cost recovery liability were assumed by the Company, resulting in a total of $19,000,000 liability to the Company, an increase of $8,000,000. The new payment schedule included a $2,000,000 payment to the EPA within 30 days of execution of this amendment, which was made.

The remaining $17,000,000 will be paid on the following dates:

Date		Amount
November 1, 2024	$	3,000,000
November 1, 2025	$	3,000,000
November 1, 2026	$	3,000,000
November 1, 2027	$	3,000,000
November 1, 2028	$	3,000,000
November 1, 2029	$	2,000,000 plus accrued interest

The resumption of payments in 2024 was agreed in order to allow the Company to generate sufficient revenue from mining activities at the Bunker Hill Mine to address remaining payment obligations from free cash flow.

The changes in payment terms and schedule were contingent upon the Company securing financial assurance in the form of performance bonds or letters of credit deemed acceptable to the EPA totaling $17,000,000, corresponding to the Company's cost recovery obligations to be paid in 2024 through 2029 as outlined above. Should the Company fail to make its scheduled payment, the EPA can draw against this financial assurance. The amount of the bonds or letters of credit will decrease over time as individual payments are made. If the Company failed to post the final financial assurance within 180 days of the execution of the Amendment, the terms of the original agreement would be reinstated.

In June 2022, the Company was successful in obtaining financial assurance. Specifically, a $9,999,000 payment bond and a $7,001,000 letter of credit were secured and provided to the EPA. This milestone provides for the Company to recognize the effects of the change in terms of the EPA liability as outlined in the December 20, 2021, agreement. Once the financial assurance was put into place, the restructuring of the payment stream under the Amendment occurred with the entire $17,000,000 liability being recognized as long-term in nature. The aforementioned payment bond and letter of credit were secured by $2,475,000 and $7,001,000 of cash deposits, respectively as of September 30, 2022.

In October 2022, the Company reported that it had been successful in securing a new payment bond to replace the aforementioned $7,001,000 letter of credit, in two stages. Initially, the letter of credit was reduced to $2,000,001 as a result of a new $5,000,000 payment bond obtained through an insurance company. The collateral for the new payment bond is comprised of a $2,000,000 letter of credit and land pledged by third parties, with whom the Company has entered into a financing cooperation agreement that contemplates a monthly fee of $20,000 (payable in cash or common shares of the Company, at the Company's election). The new payment bond is scheduled to increase to $7,001,000 (from $5,000,000) upon the advance of the multi-metals stream from Sprott Private Resource Streaming & Royalty Corp.

Project Finance Package with Sprott Private Resource Streaming & Royalty Corp.

On December 20, 2021, the Company executed a non-binding term sheet outlining a $50,000,000 project finance package with Sprott Private Resource Streaming and Royalty Corp. ("Royalty"). The non-binding term sheet with SRSR outlined a project financing package that the Company expects to fulfill the majority of its funding requirements to restart the Mine. The term sheet consisted of an $8,000,000 royalty convertible debenture (the "RCD"), a $5,000,000 convertible debenture (the "CD1"), and a multi-metals stream of up to $37,000,000 (the "Stream"). The CD1 was subsequently increased to $6,000,000, increasing the project financing package to $51,000,000.

On June 17, 2022, the Company consummated a new $15,000,000 convertible debenture (the "CD2"). As a result, total potential funding from SRSR was further increased to $66,000,000 including the RCD, CD1, CD2 and the Stream (together, the "Project Financing Package").

The Company closed the $8,000,000 RCD on January 7, 2022. The RCD bears interest at an annual rate of 9.0%, payable in cash or Common Shares at the Company's option, until such time that SRSR elects to convert a royalty, with such conversion option expiring at the earlier of advancement of the Stream or July 7, 2023 (subsequently amended as described below). In the event of conversion, the RCD will cease to exist and the Company will grant a royalty for 1.85% of life-of-mine gross revenue from mining claims considered to be historically worked, contiguous to current accessible underground development, and covered by the Company's 2021 ground geophysical survey (the "SRSR Royalty"). A 1.35% rate will apply to claims outside of these areas. The RCD was initially secured by a share pledge of the Company's operating subsidiary, Silver Valley, until a full security package was put in place concurrent with the consummation of the CD1. In the event of non-conversion, the principal of the RCD will be repayable in cash.

Concurrent with the funding of the CD2 in June 2022, the Company and SRSR agreed to a number of amendments to the terms of the RCD, including an amendment of the maturity date from July 7, 2023, to March 31, 2025. The parties also agreed to a Royalty Put Option such that in the event the RCD is converted into a royalty as described above, the holder of the royalty will be entitled to resell the royalty to the Company for $8,000,000 upon default under the CD1 or CD2 until such time that the CD1 and CD2 are paid in full.

The Company closed the $6,000,000 CD1 on January 28, 2022, which was increased from the previously announced $5,000,000. The CD1 bears interest at an annual rate of 7.5%, payable in cash or shares at the Company's option, and matures on July 7, 2023 (subsequently amended, as described below). The CD1 is secured by a pledge of the Company's properties and assets. Until the closing of the Stream, the CD1 was to be convertible into Common Shares at a price of C$0.30 per Common Share, subject to stock exchange approval (subsequently amended, as described below). Alternatively, SRSR may elect to retire the CD1 with the cash proceeds from the Stream. The Company may elect to repay the CD1 early; if SRSR elects not to exercise its conversion option at such time, a minimum of 12 months of interest would apply.

Concurrent with the funding of the CD2 in June 2022, the Company and SRSR agreed to a number of amendments to the terms of the CD1, including that the maturity date would be amended from July 7, 2023, to March 31, 2025, and that the CD1 would remain outstanding until the new maturity date regardless of whether the Stream is advanced, unless the Company elects to exercise its option of early repayment. The Company determined that amendments to the terms should not be treated as an extinguishment of CD1, but as a debt modification.

The Company closed the $15,000,000 CD2 on June 17, 2022. The CD2 bears interest at an annual rate of 10.5%, payable in cash or shares at the Company's option, and matures on March 31, 2025. The CD2 is secured by a pledge of the Company's properties and assets. The repayment terms include 3 quarterly payments of $2,000,000 each beginning June 30, 2024, and $9,000,000 on the maturity date. Concurrent with the funding of the CD2 in June 2022, the Company and SRSR agreed that the minimum quantity of metal delivered under the Stream, if advanced, will increase by 10% relative to the amounts noted above.

On December 6, 2022, the Company closed a new $5,000,000 loan facility with Sprott (the "Bridge Loan"). The Bridge Loan, which was primarily utilized to pay outstanding water treatment payables to the EPA, is secured by the same security package that is in place with respect to the RCD, CD1, and CD2. The Bridge Loan bears interest at a rate of 10.5% per annum and matures at the earlier of (i) the advance of the Stream, or (ii) June 30, 2024. In addition, the minimum quantity of metal delivered under the Stream, if advanced, would increase by 5% relative to amounts previously announced.

A minimum of $27,000,000 and a maximum of $37,000,000 (the "Stream Amount") will be made available under the Stream, at the Company's option, once the conditions of availability of the Stream have been satisfied including confirmation of full project funding by an independent engineer appointed by SRSR. If the Company draws the maximum funding of $37,000,000, the Stream will apply to 10% of payable metals sold until a minimum quantity of metal is delivered consisting of, individually, 63.5 million pounds of zinc, 40.4 million pounds of lead, and 1.2 million ounces of silver (including amendments agreed concurrent with closing of the CD2 and Bridge Loan, as described above). Thereafter, the Stream would apply to 2% of payable metals sold. If the Company elects to draw less than $37,000,000 under the Stream, the percentage and quantities of payable metals streamed will adjust pro-rata. The delivery price of streamed metals will be 20% of the applicable spot price. The Company may buy back 50% of the Stream Amount at a 1.40x multiple of the Stream Amount between the second and third anniversary of the date of funding, and at a 1.65x multiple of the Stream Amount between the third and fourth anniversary of the date of funding.

As of December 31, 2022, the Stream had not been advanced. The Company is finalizing discussions with Sprott regarding the advance of the Stream, which is conditional on satisfactory conclusion of the definitive documentation relating to the Stream, full project funding for the Bunker Hill Mine and certain other conditions precedent.

Concurrent with discussions with Sprott regarding the advance of the Stream, the Company is advancing efforts to secure offtake financing of up $20 million from third parties to complement the Stream in financing the restart of the Bunker Hill Mine.

Process Plant

On January 25, 2022, the Company announced that it had entered into a non-binding Memorandum of Understanding (“MOU”) with Teck Resources Limited (“Teck”) for the purchase of a comprehensive package of equipment and parts inventory from its Pend Oreille site (the “Process Plant”) in eastern Washington State, approximately 145 miles from the Bunker Hill Mine by road. The package comprises substantially all processing equipment of value located at the site, including complete crushing, grinding and flotation circuits suitable for a planned ~1,500 ton-per-day operation at Bunker Hill, and total inventory of nearly 10,000 components and parts for mill, assay lab, conveyer, field instruments, and electrical spares. The Company paid a $500,000 non-refundable deposit in January 2022.

On March 31, 2022, the Company announced that it had reached an agreement with a subsidiary of Teck to satisfy the remaining purchase price for the Process Plant by way of an equity issuance of the Company. Teck will receive 10,416,667 units of the Company (the “Teck Units”) at a deemed issue price of C$0.30 per unit. Each Teck Unit consists of one Common Share and one Common Share purchase warrant (the “Teck Warrants”). Each whole Teck Warrant entitles the holder to acquire one Common Share at a price of C$0.37 per Common Share for a period of three years. The equity issuance and purchase of the Process Plant occurred on May 13, 2022.

On August 30, 2022, the Company entered into an agreement to purchase a ball mill from D’Angelo International LLC for $675,000. The purchase of the mill is to be made in three cash payments. The first two payments were made as follows:

- $100,000 on September 15, 2022, as a non-refundable deposit
- $100,000 on October 13, 2022, as a refundable deposit

The Company has not made the final payment of $475,000 as of the issuance of this report.

Business Operations

The Mine is a zinc-lead-silver Mine. When back in production, the Company intends to mill mineral resources on-site to produce both zinc and lead-silver concentrates which will then be shipped to a third-party smelter for processing.

Infrastructure

The Mine includes all mining rights and claims, surface rights, fee parcels, mineral interests, easements, existing infrastructure at Milo Gulch, and the majority of machinery and buildings at the Kellogg Tunnel portal level, as well as all equipment and infrastructure anywhere underground at the Bunker Hill Mine Complex. It also includes all current and historic data relating to the Bunker Hill Mine Complex, such as drill logs, reports, maps, and similar information located at the Mine site or any other location.
For further detail, please refer to the “Project Infrastructure” section in Item 2 below.

Government Regulation and Approval

Exploration and development activities, and any future mining operations, are subject to extensive laws and regulations governing the protection of the environment, waste disposal, worker safety, mine construction, and protection of endangered and protected species. The Company has made, and expects to make in the future, significant expenditures to comply with such laws and regulations. Future changes in applicable laws, regulations and permits or changes in their enforcement or regulatory interpretation could have an adverse impact on the Company's financial condition or results of operations.

It may be necessary to obtain the following environmental permits or approved plans prior to commencement of mine operations:

- Reclamation and Closure Plan
- Water Discharge Permit
- Air Quality Operating Permit
- Industrial Artificial (tailings) pond permit
- Obtaining Water Rights for Operations

If these permits are required, there can be no assurance that the Company will be able to obtain them in a timely manner or at all. For further detail, please refer to the "Environmental Studies and Permitting" section of the "Technical Report Summary" in Item 2 below.

Property Description

The Company has mineral rights to approximately 440 patented mining claims covering over 5700 acres. Of these claims, 35 include surface ownership of approximately 259 acres. It also has certain parcels of fee property which include mineral and surface rights but not patented mining claims. Mining claims and fee properties are located in Townships 47, 48 North, Range 2 East, Townships 47, 48 North, Range 3 East, Boise Meridian, Shoshone County, Idaho.

Patented mining claims in the State of Idaho do not require permits for underground mining activities to commence on private lands. Other permits associated with underground mining may be required, such as water discharge and site disturbance permits. The water discharge is being handled by the EPA at the existing CTP. The Company expects to take on the water treatment responsibility in the future and obtain an appropriate discharge permit.

For further detail, please refer to the "Property Description and Ownership" section of the "Technical Report Summary" in Item 2 below.

Competition

The Company competes with other mining and exploration companies in connection with the acquisition of mining claims and leases on zinc and other base and precious metals prospects as well as in connection with the recruitment and retention of qualified employees. Many of these companies are much larger than the Company, have greater financial resources and have been in the mining business for much longer than it has. As such, these competitors may be in a better position through size, finances and experience to acquire suitable exploration and development properties. The Company may not be able to compete against these companies in acquiring new properties and/or qualified people to work on its current project, or any other properties that may be acquired in the future.

Given the size of the world market for base precious metals such as silver, lead and zinc, relative to the number of individual producers and consumers, it is believed that no single company has sufficient market influence to significantly affect the price or supply of these metals in the world market.

Employees

The Company has ten employees. The balance of the Company's operations is contracted for as consultants.

Reports to Security Holders

The Company files reports with the SEC under section 15d of the Securities Exchange Act of 1934 (the "Exchange Act"). The reports will be filed electronically. All copies of any materials filed with the SEC may be read at the SEC's Public Reference Room at 100 F Street, NE, Room 1580, Washington, D.C. 20549. Information on the operation of the Public Reference Room may be obtained by calling the SEC at 1-800-SEC-0330. The SEC also maintains an Internet site that will contain copies of the reports that are filed electronically. The address for the SEC Internet site is http://www.sec.gov.

ITEM 1A. RISK FACTORS

As a Smaller Reporting Company, this item is not required under SEC rules. However, the Company believes that it is important to have an understanding of the risks associated with an investment in the Company. In addition, these risk factors are incorporated by reference in press releases and other Company publications for purposes of the Private Securities Reform Act of 1995.

General Risk Factors

The Company's ability to operate as a going concern is in doubt.

The audit opinion and notes that accompany the Company's Financial Statements disclose a going concern qualification to its ability to continue in business. The accompanying Financial Statements have been prepared under the assumption that the Company will continue as a going concern. The Company is an exploration and development stage company and has incurred losses since its inception. The Company has incurred losses resulting in an accumulated deficit of $71,592,559 as of December 31, 2022 and further losses are anticipated in the development of its business.

The Company currently has no historical recurring source of revenue and its ability to continue as a going concern is dependent on its ability to raise capital to fund its future exploration and working capital requirements or its ability to profitably execute its business plan. The Company's plans for the long-term return to and continuation as a going concern include financing its future operations through sales of its Common Shares and/or debt and the eventual profitable exploitation of the Mine. Additionally, the volatility in capital markets and general economic conditions in the U.S. and elsewhere can pose significant challenges to raising the required funds. These factors raise substantial doubt about the Company's ability to continue as a going concern.

The Company's consolidated financial statements do not give effect to any adjustments required to realize its assets and discharge its liabilities in other than the normal course of business and at amounts different from those reflected in the accompanying Financial Statements.

The Company will require significant additional capital to fund its short-term obligations, continue its operations and remain in compliance with its debt agreements.

Neither the Company nor any of the directors of the Company nor any other party can provide any guarantee or assurance that the Company will be able to raise sufficient capital to satisfy the Company's short-term obligations. The Company does not have sufficient funds to satisfy its short-term financial obligations, even after consideration of its recently completed equity financing. As at December 31, 2022, the Company had $708,105 in cash and total current liabilities of $10,155,582 and total liabilities of $59,106,835. The Company will likely require additional capital by the end of the second quarter of 2023 in order to continue its operations. Further, if the Company does not raise sufficient additional capital, the Company will be in breach of its debt agreements, including under the RCD, CD1, CD2 and Bridge Loan.

The Company may not be able to secure the Stream or alternative funding from Sprott or another capital provider.

Neither the Company nor any of the directors of the Company nor any other party can provide any guarantee or assurance that the Stream, the final contemplated tranche of the full $66,000,000 project financing package, will be finalized or close, or any other funding from Sprott. The Stream remains subject to Sprott internal approvals, full project funding, further technical and other due diligence and satisfactory documentation. If the Stream, or a portion thereof, does not close there is no guarantee that alternative capital can be raised on terms favorable to the Company, or at all.

Any additional equity funding, for which there can be no guarantee or assurance with regard to any amount or terms thereof, will dilute existing shareholders.

A concentrate offtake agreement with Teck Resources may not be reached, which could result in less favorable commercial terms for the sale of concentrates envisaged to be produced by the Bunker Hill Mine and could also impact the Company's ability to secure offtake financing. Regardless of actions taken by Teck, there can be no assurance that the Company will be able to secure or close offtake financing, which could have an adverse effect on the Company's financial position and negative impact the Company's ability to secure additional funding from Sprott or an alternative capital provider.

The Company may not be able to execute a concentrate offtake agreement for the sale of concentrates to Teck Resources at its Trail smelter, as contemplated with Teck's option to acquire 100% of zinc and lead concentrate produced in the first five years at the Bunker Hill Mine. If such an agreement cannot be reached, the Company may not be able to sell its zinc and lead concentrate to Teck, which could result in difficulties securing alternative commercial arrangements for the sale of concentrate, less favorable commercial terms in the event that alternative commercial arrangements can be secured, and/or higher transportation and other costs. In addition, the Company may not be able to secure or close offtake financing, regardless of whether an agreement is reached with Teck; the terms of any offtake financing might not be favorable to the Company; and/or the Company may incur substantial fees and costs related to such financing. The Company's inability to secure or close offtake financing, or arrange a suitable alternative, may have an adverse effect on the Company's operations and financial position, including its ability to secure the Stream from Sprott.

The Bunker Hill Mine restart is now expected to take place in 2024, with first concentrate production targeted for mid-2024. Changes to this timeline, or other factors impacting the restart project budget, could increase the Company's required capital needs through the completion of the project, which would adversely affect the Company's ability to secure additional funding, thereby adversely affecting its financial condition.

On February 28, 2023, the Company announced that primarily due to the inability to procure certain long-lead items that were planned to be ordered by February 2023, and longer estimated delivery times thereof, the Company now expects the Bunker Hill Mine restart to be achieved in 2024. On March 10, 2023, the Company announced that it has maintained the integrity of its total pre-production budget, under the assumption of first concentrate production in the second quarter of 2024.

In the event that the Company is unable to secure sufficient funding to materially advance the restart of the Mine in the second quarter of 2023, from Sprott or an alternative capital provider, it is likely that the restart timeline will be further delayed with a potentially materially adverse effect on the pre-production budget.

Notwithstanding financing-related risks, the Company's pre-production budget estimates are subject to change based on factors beyond its control, including but not limited to cost inflation and supply chain dynamics. An increase in the Company's pre-production budget estimates could have a materially adverse impact on its ability to secure project financing. This could have a material adverse effect on its financial condition, results of operations, or prospects. Sales of substantial amounts of securities may have a highly dilutive effect on the Company's ownership or share structure. Sales of a large number of shares of the Company's Common Shares in the public markets, or the potential for such sales, could decrease the trading price of the Common Shares and could impair the Company's ability to raise capital through future sales of Common Shares. The Company has not yet commenced commercial production at any of its properties and, therefore, has not generated positive cash flows to date and has no reasonable prospects of doing so unless successful commercial production can be achieved at the Mine. The Company expects to continue to incur negative investing and operating cash flows until such time as it enters into successful commercial production. This will require the Company to deploy its working capital to fund such negative cash flow and to seek additional sources of financing. There is no assurance that any such financing sources will be available or sufficient to meet the Company's requirements, or if available, available upon terms acceptable to the Company. There is no assurance that the Company will be able to continue to raise equity capital or to secure additional debt financing, or that the Company will not continue to incur losses.

Payment bonds securing $17,000,000 due by the Company to the EPA for cost recovery may not be renewable or may only be renewable on terms that are unfavorable to the Company, which would adversely affect its financial condition or cause a default under the revised settlement agreement with the EPA and Sprott.

In 2022, the Company secured financial assurance in the form of payment bonds in accordance with the revised settlement agreement with the EPA, in relation to $17,000,000 of payments due to the EPA for cost recovery between 2024-2029. These bonds are renewed annually, and currently require $6,476,000 of collateral in the form of letters of credit. To the extent that the parties providing the payment bonds demand additional collateral beyond the current requirements, or other unfavorable terms or conditions, the Company may not be able to renew the payment bonds on favorable conditions, or at all. This could have a materially adverse impact on the Company, including a potential default under the revised settlement agreement with the EPA.

The Company has a limited operating history on which to base an evaluation of its business and prospects.

Since its inception, the Company has had no revenue from operations. The Company has no history of producing products from the Bunker Hill property. The Mine is a historic, past producing mine with very little recent exploration work. Advancing the Mine through the development stage will require significant capital and time, and successful commercial production from the Mine will be subject to completing the requisite studies, permitting and re-commissioning of the Mine, constructing a processing plant, and other related works and infrastructure. As a result, the Company is subject to all of the risks associated with developing and establishing new mining operations and business enterprises, including:

- completion of studies to verify reserves and commercial viability, including the ability to find sufficient ore reserves to support a commercial mining operation;
- the timing and cost, which can be considerable, of further exploration, preparing feasibility studies, permitting and construction of infrastructure, mining and processing facilities;
- the availability and costs of drill equipment, exploration personnel, skilled labor, and mining and processing equipment, if required;
- the availability and cost of appropriate smelting and/or refining arrangements, if required;
- compliance with stringent environmental and other governmental approval and permit requirements;
- the availability of funds to finance exploration, development, and construction activities, as warranted;
- potential opposition from non-governmental organizations, local groups or local inhabitants that may delay or prevent development activities;
- potential increases in exploration, construction, and operating costs due to changes in the cost of fuel, power, materials, and supplies; and
- potential shortages of mineral processing, construction, and other facilities related supplies.

The costs, timing, and complexities of exploration, development, and construction activities may be increased by the location of its properties and demand by other mineral exploration and mining companies. It is common in exploration programs to experience unexpected problems and delays during drill programs and, if commenced, development, construction, and mine start-up. In addition, the Company's management and workforce will need to be expanded, and sufficient housing and other support systems for its workforce will have to be established. This could result in delays in the commencement of mineral production and increased costs of production. Accordingly, the Company's activities may not result in profitable mining operations, and it may not succeed in establishing mining operations or profitably producing metals at any of its current or future properties, including the Mine.

The Company has a history of losses and expects to continue to incur losses in the future.

The Company has incurred losses since inception, has had negative cash flow from operating activities, and expects to continue to incur losses in the future. The Company has incurred the following losses from operations during each of the following periods:

- $16,487,161 for the year ended December 31, 2022; and
- $18,752,504 for the year ended December 31, 2021

The Company expects to continue to incur losses unless and until such time as the Mine enters into commercial production and generates sufficient revenues to fund continuing operations. The Company recognizes that if it is unable to generate significant revenues from mining operations and dispositions of its properties, the Company will not be able to earn profits or continue operations. At this early stage of its operation, the Company also expects to face the risks, uncertainties, expenses, and difficulties frequently encountered by smaller reporting companies. The Company cannot be sure that it will be successful in addressing these risks and uncertainties and its failure to do so could have a materially adverse effect on its financial condition.

Epidemics, pandemics or other public health crises, including COVID-19, could adversely affect the Company's business.

The Company's operations could be significantly adversely affected by the effects of a widespread outbreak of epidemics, pandemics or other health crises, including the recent outbreak of respiratory illness caused by the novel coronavirus ("COVID-19"), which was declared a pandemic by the World Health Organization on March 12, 2020. The Company cannot accurately predict the impact COVID-19 or some future variant would have on its operations and the ability of others to meet their obligations with the Company, including uncertainties relating to the ultimate geographic spread of the virus, the severity of the disease, the duration of the outbreak, and the length of travel and quarantine restrictions imposed by governments of affected countries. In addition, a significant outbreak of contagious diseases in the human population could result in a widespread health crisis that could adversely affect the economies and financial markets of many countries, resulting in an economic downturn that could further affect the Company's operations and ability to finance its operations.

The Russia/Ukraine crisis, including the impact of sanctions or retributions thereto, could adversely affect the Company's business.

The Company's operations could be adversely affected by the effects of the escalating Russia/Ukraine crisis and the effects of sanctions imposed against Russia or that country's retributions against those sanctions, embargos or further-reaching impacts upon energy prices, food prices and market disruptions. The Company cannot accurately predict the impact the crisis will have on its operations and the ability of contractors to meet their obligations with the Company, including uncertainties relating the severity of its effects, the duration of the conflict, and the length and magnitude of energy bans, embargos and restrictions imposed by governments. In addition, the crisis could adversely affect the economies and financial markets of the United States in general, resulting in an economic downturn that could further affect the Company's operations and ability to finance its operations. Additionally, the Company cannot predict changes in precious metals pricing or changes in commodities pricing which may alternately affect the Company either positively or negatively.

Risks Related to Mining and Exploration

The Company is in the development stage.

The nature of mineral exploration and production activities involves a high degree of risk and the possibility of uninsured losses.

Exploration for and the production of minerals is highly speculative and involves much greater risk than many other businesses. Most exploration programs do not result in the discovery of mineralization, and any mineralization discovered may not be of sufficient quantity or quality to be profitably mined. The Company's operations are, and any future development or mining operations the Company may conduct will be, subject to all of the operating hazards and risks normally incidental to exploring for and development of mineral properties, including, but not limited to:

- economically insufficient mineralized material;
- fluctuation in production costs that make mining uneconomical;
- labor disputes;
- unanticipated variations in grade and other geologic problems;
- environmental hazards;
- water conditions;
- difficult surface or underground conditions;
- industrial accidents;
- metallurgic and other processing problems;
- mechanical and equipment performance problems;
- failure of dams, stockpiles, wastewater transportation systems, or impoundments;
- unusual or unexpected rock formations; and
- personal injury, fire, flooding, cave-ins and landslides.

Any of these risks can materially and adversely affect, among other things, the development of properties, production quantities and rates, costs and expenditures, potential revenues, and production dates. If the Company determines that capitalized costs associated with any of its mineral interests are not likely to be recovered, the Company would incur a write-down of its investment in these interests. All these factors may result in losses in relation to amounts spent that are not recoverable, or that result in additional expenses.

Commodity price volatility could have dramatic effects on the results of operations and the Company's ability to execute its business plan.

The price of commodities varies on a daily basis. The Company's future revenues, if any, will likely be derived from the extraction and sale of base and precious metals. The price of those commodities has fluctuated widely, particularly in recent years, and is affected by numerous factors beyond its control including economic and political trends, expectations of inflation, currency exchange fluctuations, interest rates, global and regional consumptive patterns, speculative activities and increased production due to new extraction developments and improved extraction and production methods. The effect of these factors on the price of base and precious metals, and therefore the economic viability of the Company's business, could negatively affect its ability to secure financing or its results of operations.

The Company's development and production plans, and cost estimates, in the Technical Report Summary may vary and/or not be achieved.

There is no certainty that the Technical Report Summary will be realized. The decision to implement the Mine restart scenario to be included in the Technical Report Summary will not be based on a feasibility study of mineral reserves demonstrating economic and technical viability, and therefore there is increased risk that the Technical Report Summary results will not be realized. If the Company is unable to achieve the results in the Technical Report Summary, it may have a material negative impact on the Company and its capital investment to implement the restart scenario may be lost.

Costs charged to the Company by the Idaho Department of Environmental Quality ("IDEQ") for treatment of wastewater fluctuate a great deal and are not within the Company's control.

The Company is billed annually for water treatment activities performed by the IDEQ for the EPA. The water treatment costs that Bunker Hill is billed for are partially related to the EPA's direct cost of treating the water emanating from the Bunker Hill Mine, which are comprised of lime and flocculant usage, electricity consumption, maintenance and repair, labor and some overhead. Rate of discharge of effluent from the Bunker Hill Mine is largely dependent on the level of precipitation within a given year and how close in the calendar year the Company is to the spring run-off. Increases in water infiltrations and gravity flows within the mine generally increase after winter and result in a peak discharge rate in May. Increases in gravity flow and consequently the rate of water discharged by the mine have a highly robust correlation with metal concentrations and consequently metals loads of effluent.

Hydraulic loads (quantities of water per unit of time) and metal loads (quantities of metals per unit of volume of effluent per unit of time) are the two main determinants of cost of water treatment by the EPA in the relationship with the Bunker Hill Mine because greater metal loads consume more lime and more flocculent and more electricity to remove the increased levels of metals and make the water clean. The scale of the treatment plant is determined by how much total water can be processed (hydraulic load) at any one point in time. This determines how much labor is required to operate the plant and generally determines the amount of overhead required to run the EPA business.

The EPA has completed significant upgrades to the water treatment capabilities of the CTP and is now capable of producing treated water than can meet a much higher discharge standard (which Bunker Hill will be forced to meet beyond May 2023). While it was understood that improved performance capability would increase the cost of operating the plant, it was unclear to EPA, and consequently to Bunker Hill, how much the costs would increase by.

These elements described above, and others, impact the direct costs of water treatment. A significant portion of the total amount invoiced by EPA each year is indirect cost that is determined as a percentage of the direct cost. Each year the indirect costs percentage changes within each region of the EPA. Bunker Hill has no ability to impact the percentage of indirect cost that is set by the EPA regional office. Bunker Hill also has no advanced notice of what the percentage of indirect cost will be until it receives its invoice in June of the year following the billing period. The Company remains unable to estimate EPA billings to a high degree of accuracy.

Estimates of mineral reserves and resources are subject to evaluation uncertainties that could result in project failure.

Its exploration and future mining operations, if any, are and would be faced with risks associated with being able to accurately predict the quantity and quality of mineral resources/reserves within the earth using statistical sampling techniques. Estimates of any mineral resource/reserve on the Mine would be made using samples obtained from appropriately placed trenches, test pits, underground workings, and intelligently designed drilling. There is an inherent variability of assays between check and duplicate samples taken adjacent to each other and between sampling points that cannot be reasonably eliminated. Additionally, there also may be unknown geologic details that have not been identified or correctly appreciated at the current level of accumulated knowledge about the Mine. This could result in uncertainties that cannot be reasonably eliminated from the process of estimating mineral resources/reserves. If these estimates were to prove to be unreliable, the Company could implement an exploitation plan that may not lead to commercially viable operations in the future.

Any material changes in mineral resource/reserve estimates and grades of mineralization will affect the economic viability of placing a property into production and a property's return on capital.

As the Company has not commenced actual production, mineral resource estimates may require adjustments or downward revisions. In addition, the grade of ore ultimately mined, if any, may differ from that indicated by future feasibility studies and drill results. Minerals recovered in small scale tests may not be duplicated in large scale tests under on-site conditions or in production scale.

The Company's exploration activities may not be commercially successful, which could lead the Company to abandon its plans to develop the Mine and its investments in exploration.

The Company's long-term success depends on its ability to identify mineral deposits on the Mine and other properties the Company may acquire, if any, that the Company can then develop into commercially viable mining operations.

Mineral exploration is highly speculative in nature, involves many risks, and is frequently non-productive. These risks include unusual or unexpected geologic formations, and the inability to obtain suitable or adequate machinery, equipment, or labor. The success of commodity exploration is determined in part by the following factors:

- the identification of potential mineralization based on surficial analysis;
- availability of government-granted exploration permits;
- the quality of its management and its geological and technical expertise; and
- the capital available for exploration and development work.

Substantial expenditures are required to establish proven and probable reserves through drilling and analysis, to develop metallurgical processes to extract metal, and to develop the mining and processing facilities and infrastructure at any site chosen for mining. Whether a mineral deposit will be commercially viable depends on a number of factors that include, without limitation, the particular attributes of the deposit, such as size, grade, and proximity to infrastructure; commodity prices, which can fluctuate widely; and government regulations, including, without limitation, regulations relating to prices, taxes, royalties, land tenure, land use, importing and exporting of minerals, and environmental protection. The Company may invest significant capital and resources in exploration activities and may abandon such investments if the Company is unable to identify commercially exploitable mineral reserves. The decision to abandon a project may have an adverse effect on the market value of the Company's securities and the ability to raise future financing.

The Company is subject to significant governmental regulations that affect its operations and costs of conducting its business and may not be able to obtain all required permits and licenses to place its properties into production.

The Company's current and future operations, including exploration and, development of the Mine, do and will require permits from governmental authorities and will be governed by laws and regulations, including:

- laws and regulations governing mineral concession acquisition, prospecting, development, mining, and production;
- laws and regulations related to exports, taxes, and fees;
- labor standards and regulations related to occupational health and mine safety; and
- environmental standards and regulations related to waste disposal, toxic substances, land use reclamation, and environmental protection.

Specifically, it may be necessary to obtain the following environmental permits or approved plans prior to commencement of mine operations:

- Reclamation and Closure Plan
- Water Discharge Permit
- Air Quality Operating Permit
- Industrial Artificial (tailings) pond permit
- Obtaining Water Rights for Operations

If these permits are required, there can be no assurance that the Company will be able to obtain them in a timely manner or at all.

Companies engaged in exploration activities often experience increased costs and delays in production and other schedules as a result of the need to comply with applicable laws, regulations, and permits. Failure to comply with applicable laws, regulations, and permits may result in enforcement actions, including the forfeiture of mineral claims or other mineral tenures, orders issued by regulatory or judicial authorities requiring operations to cease or be curtailed, and may include corrective measures requiring capital expenditures, installation of additional equipment, or costly remedial actions. The Company cannot predict if all permits that it may require for continued exploration, development, or construction of mining facilities and conduct of mining operations will be obtainable on reasonable terms, if at all. Costs related to applying for and obtaining permits and licenses may be prohibitive and could delay its planned exploration and development activities. The Company may be required to compensate those suffering loss or damage by reason of the mineral exploration or its mining activities, if any, and may have civil or criminal fines or penalties imposed for violations of, or its failure to comply with, such laws, regulations, and permits.

Existing and possible future laws, regulations, and permits governing operations and activities of exploration companies, or more stringent implementation of such laws, regulations and permits, could have a material adverse impact on the Company's business and cause increases in capital expenditures or require abandonment or delays in exploration. The Mine is located in Northern Idaho and has numerous clearly defined regulations with respect to permitting mines, which could potentially impact the total time to market for the project.

The Company's activities are subject to environmental laws and regulations that may increase its costs of doing business and restrict its operations.

Both mineral exploration and extraction require permits from various federal, state, and local governmental authorities and are governed by laws and regulations, including those with respect to prospecting, mine development, mineral production, transport, export, taxation, labor standards, occupational health, waste disposal, toxic substances, land use, environmental protection, mine safety and other matters. There can be no assurance that the Company will be able to obtain or maintain any of the permits required for the exploration of the mineral properties or for the construction and operation of the Mine at economically viable costs. If the Company cannot accomplish these objectives, its business could fail. The Company believes that it is in compliance with all material laws and regulations that currently apply to its activities but there can be no assurance that the Company can continue to remain in compliance. Current laws and regulations could be amended, and the Company might not be able to comply with them, as amended. Further, there can be no assurance that the Company will be able to obtain or maintain all permits necessary for its future operations, or that it will be able to obtain them on reasonable terms. To the extent such approvals are required and are not obtained, the Company may be delayed or prohibited from proceeding with planned exploration or development of the mineral properties.

The Company's activities are subject to extensive laws and regulations governing environmental protection. The Company is also subject to various reclamation-related conditions. Although the Company closely follows and believes it is operating in compliance with all applicable environmental regulations, there can be no assurance that all future requirements will be obtainable on reasonable terms. Failure to comply may result in enforcement actions causing operations to cease or be curtailed and may include corrective measures requiring capital expenditures. Intense lobbying over environmental concerns by non-governmental organizations has caused some governments to cancel or restrict development of mining projects. Current publicized concern over climate change may lead to carbon taxes, requirements for carbon offset purchases or new regulation. The costs or likelihood of such potential issues to the Company cannot be estimated at this time.

The legal framework governing this area is constantly developing, therefore the Company is unable to fully ascertain any future liability that may arise from the implementation of any new laws or regulations, although such laws and regulations are typically strict and may impose severe penalties (financial or otherwise). The proposed activities of the Company, as with any exploration company, may have an environmental impact which may result in unbudgeted delays, damage, loss and other costs and obligations including, without limitation, rehabilitation and/or compensation. There is also a risk that the Company's operations and financial position may be adversely affected by the actions of environmental groups or any other group or person opposed in general to the Company's activities and, in particular, the proposed exploration and mining by the Company within the state of Idaho and the United States.

Environmental hazards unknown to the Company, which have been caused by previous or existing owners or operators of the Mine, may exist on the properties in which the Company holds an interest. Many of the properties in which the Company has ownership rights are located within the Coeur d'Alene Mining District, which is currently the site of a Federal Superfund cleanup project. It is possible that environmental cleanup or other environmental restoration procedures could remain to be completed or mandated by law, causing unpredictable and unexpected liabilities to arise.

Regulations and pending legislation governing issues involving climate change could result in increased operating costs, which could have a material adverse effect on the Company's business.

A number of governments or governmental bodies have introduced or are contemplating legislative and/or regulatory changes in response to concerns about the potential impact of climate change. Legislation and increased regulation regarding climate change could impose significant costs on the Company, on its future venture partners, if any, and on its suppliers, including costs related to increased energy requirements, capital equipment, environmental monitoring and reporting, and other costs necessary to comply with such regulations. Any adopted future climate change regulations could also negatively impact the Company's ability to compete with companies situated in areas not subject to such limitations. Given the emotional and political significance and uncertainty surrounding the impact of climate change and how it should be dealt with, the Company cannot predict how legislation and regulation will ultimately affect its financial condition, operating performance, and ability to compete. Furthermore, even without such regulation, increased awareness and any adverse publicity in the global marketplace about potential impacts on climate change by the Company or other companies in its industry could harm the Company's reputation. The potential physical impacts of climate change on its operations are highly uncertain, could be particular to the geographic circumstances in areas in which the Company operates and may include changes in rainfall and storm patterns and intensities, water shortages, changing sea levels, and changing temperatures. These impacts may adversely impact the cost, production, and financial performance of the Company's operations.

There are several governmental regulations that materially restrict mineral exploration. The Company will be subject to the federal regulations (environmental) and the laws of the State of Idaho as the Company carries out its exploration program. The Company may be required to obtain additional work permits, post bonds and perform remediation work for any physical disturbance to the land in order to comply with these laws. While the Company's planned exploration program budgets for regulatory compliance, there is a risk that new regulations could increase its costs of doing business and prevent it from carrying out its exploration program.

Land reclamation requirements for the Company's properties may be burdensome and expensive.

Although variable depending on location and the governing authority, land reclamation requirements are generally imposed on mineral exploration companies (as well as companies with mining operations) in order to minimize long-term effects of land disturbance.

Reclamation may include requirements to:

- control dispersion of potentially deleterious effluents;
- treat ground and surface water to drinking water standards; and
- reasonably re-establish pre-disturbance landforms and vegetation.

To date, the Company has not been subject to reclamation or bonding obligations in connection with its past or potential future development activities. If these obligations were to occur in the future, or if the Company is required to carry out reclamation work, the Company must allocate financial resources that might otherwise be spent on further exploration and development programs.

Social and environmental activism may have an adverse effect on the reputation and financial condition of the Company or its relationship with the communities in which it operates.

There is an increasing level of public concern relating to the effects of mining on the nature landscape, in communities and on the environment. Certain non-governmental organizations, public interest groups and reporting organizations ("NGOs") who oppose resource development can be vocal critics of the mining industry. In addition, there have been many instances in which local community groups have opposed resource extraction activities, which have resulted in disruption and delays to the relevant operation. While the Company seeks to operate in a socially responsible manner and believes it has good relationships with local communities in the regions in which it operates, NGOs or local community organizations could direct adverse publicity against and/or disrupt the operations of the Company in respect to one or more of its properties, regardless of its successful compliance with social and environmental best practices, due to political factors, activities of unrelated third parties on lands in which the Company has an interest or the Company's operations specifically. Any such actions and the resulting media coverage could have an adverse effect on the reputation and financial condition of the Company or its relationships with the communities in which it operates, which could have a material adverse effect on the Company's business, financial condition, results of operations, cash flows or prospects.

The mineral exploration and mining industry is highly competitive.

The mining industry is intensely competitive in all of its phases. As a result of this competition, some of which is with large established mining companies with substantial capabilities and with greater financial and technical resources than the Company's, the Company may be unable to acquire additional properties, if any, or financing on terms it considers acceptable. The Company also competes with other mining companies in the recruitment and retention of qualified managerial and technical employees. If the Company is unable to successfully compete for qualified employees, its exploration and development programs may be slowed down or suspended. The Company competes with other companies that produce its planned commercial products for capital. If the Company is unable to raise sufficient capital, its exploration and development programs may be jeopardized or it may not be able to acquire, develop, or operate additional mining projects.

The silver industry is highly competitive, and the Company is required to compete with other corporations and business entities, many of which have greater resources than it does. Such corporations and other business entities could outbid the Company for potential projects or produce minerals at lower costs, which would have a negative effect on the Company's operations.

Metal prices are highly volatile. If a profitable market for its metals does not exist, the Company may have to cease operations.

Mineral prices have been highly volatile and are affected by numerous international economic and political factors over which the Company has no control. The Company's long-term success is highly dependent upon the price of silver, as the economic feasibility of any ore body discovered on its current property, or on other properties the Company may acquire in the future, would, in large part, be determined by the prevailing market price of the minerals. If a profitable market does not exist, the Company may have to cease operations.

A shortage of equipment and supplies could adversely affect the Company's ability to operate its business.

The Company is dependent on various supplies and equipment to carry out its mining exploration and, if warranted, development operations. Any shortage of such supplies, equipment, and parts could have a material adverse effect on the Company's ability to carry out its operations and could therefore limit, or increase the cost of, production.

Joint ventures and other partnerships, including offtake arrangements, may expose the Company to risks.

The Company may enter into joint ventures, partnership arrangements, or offtake agreements, with other parties in relation to the exploration, development, and production of the properties in which the Company has an interest. Any failure of such other companies to meet their obligations to the Company or to third parties, or any disputes with respect to the parties' respective rights and obligations, could have a material adverse effect on the Company, the development and production at its properties, including the Mine, and on future joint ventures, if any, or their properties, and therefore could have a material adverse effect on its results of operations, financial performance, cash flows and the price of its Common Shares.

The Company may experience difficulty attracting and retaining qualified management to meet the needs of its anticipated growth, and the failure to manage its growth effectively could have a material adverse effect on its business and financial condition.

The success of the Company is currently largely dependent on the performance of its directors and officers. The loss of the services of any of these people could have a materially adverse effect on the Company's business and prospects. There is no assurance the Company can maintain the services of its directors, officers or other qualified personnel required to operate its business. As the Company's business activity grows, the Company will require additional key financial, administrative and mining personnel as well as additional operations staff. There can be no assurance that these efforts will be successful in attracting, training and retaining qualified personnel as competition for people with these skill sets increase. If the Company is not successful in attracting, training and retaining qualified personnel, the efficiency of its operations could be impaired, which could have an adverse impact on the Company's operations and financial condition. In addition, the COVID-19 pandemic may cause the Company to have inadequate access to an available skilled workforce and qualified personnel, which could have an adverse impact on the Company's financial performance and financial condition.

The Company is dependent on a relatively small number of key employees, including its Chief Executive Officer (the "CEO") and Chief Financial Officer (the "CFO"). The loss of any officer could have an adverse effect on the Company. The Company has no life insurance on any individual, and the Company may be unable to hire a suitable replacement for them on favorable terms, should that become necessary.

The Company may be subject to potential conflicts of interest with its directors and/or officers.

Certain directors and officers of the Company are or may become associated with other mining and/or mineral exploration and development companies which may give rise to conflicts of interest. Directors who have a material interest in any person who is a party to a material contract or a proposed material contract with the Company are required, subject to certain exceptions, to disclose that interest and generally abstain from voting on any resolution to approve such a contract. In addition, directors and officers are required to act honestly and in good faith with a view to the best interests of the Company. Some of the directors and officers of the Company have either other full-time employment or other business or time restrictions placed on them and accordingly, the Company will not be the only business enterprise of these directors and officers. Further, any failure of the directors or officers of the Company to address these conflicts in an appropriate manner or to allocate opportunities that they become aware of to the Company could have a material adverse effect on the Company's business, financial condition, results of operations, cash flows or prospects.

The Company's results of operations could be affected by currency fluctuations.

The Company's properties are currently all located in the U.S. and while most costs associated with these properties are paid in U.S. dollars, a significant amount of its administrative expenses are payable in Canadian dollars. There can be significant swings in the exchange rate between the U.S. dollar and the Canadian dollar. There are no plans at this time to hedge against any exchange rate fluctuations in currencies.

Title to the Company's properties may be subject to other claims that could affect its property rights and claims.

There are risks that title to the Company's properties may be challenged or impugned. The Mine is located in Northern Idaho and may be subject to prior unrecorded agreements or transfers and title may be affected by undetected defects.

The Company may be unable to secure surface access or purchase required surface rights.

Although the Company obtains the rights to some or all of the minerals in the ground subject to the mineral tenures that the Company acquires, or has the right to acquire, in some cases the Company may not acquire any rights to, or ownership of, the surface to the areas covered by such mineral tenures. In such cases, applicable mining laws usually provide for rights of access to the surface for the purpose of carrying on mining activities; however, the enforcement of such rights through the courts can be costly and time consuming. It is necessary to negotiate surface access or to purchase the surface rights if long-term access is required. There can be no guarantee that, despite having the right at law to access the surface and carry on mining activities, the Company will be able to negotiate satisfactory agreements with any such existing landowners/occupiers for such access or purchase of such surface rights, and therefore the Company may be unable to carry out planned mining activities. In addition, in circumstances where such access is denied, or no agreement can be reached, the Company may need to rely on the assistance of local officials or the courts in such jurisdiction, the outcomes of which cannot be predicted with any certainty. The Company's inability to secure surface access or purchase required surface rights could materially and adversely affect its timing, cost, or overall ability to develop any mineral deposits the Company may locate.

The Company's properties and operations may be subject to litigation or other claims.

From time to time the Company's properties or operations may be subject to disputes that may result in litigation or other legal claims. The Company may be required to take countermeasures or defend against these claims, which will divert resources and management time from operations. The costs of these claims or adverse filings may have a material effect on its business and results of operations.

Mineral exploration and development is subject to extraordinary operating risks. The Company currently insures against these risks on a limited basis. In the event of a cave-in or similar occurrence, the Company's liability may exceed its resources and insurance coverage, which would have an adverse impact on the Company.

Mineral exploration, development and production involve many risks. The Company's operations will be subject to all the hazards and risks inherent in the exploration for mineral resources and, if the Company discovers a mineral resource in commercially exploitable quantity, its operations could be subject to all of the hazards and risks inherent in the development and production of resources, including liability for pollution, cave-ins or similar hazards against which the Company cannot insure or against which the Company may elect not to insure. Any such event could result in work stoppages and damage to property, including damage to the environment. As of the date hereof, the Company currently maintains commercial general liability insurance and umbrella liability insurance against these operating hazards, in connection with its exploration program. The payment of any liabilities that arise from any such occurrence that would not otherwise be covered under the current insurance policies would have a material adverse impact on the Company.

Mineral exploration and development are dependent on adequate infrastructure.

Exploration, development and processing activities depend, to one degree or another, on adequate infrastructure. Reliable roads, bridges, power sources and water supply are important elements of infrastructure, which affect access, capital and operating costs. The lack of availability of acceptable terms or the delay in the availability of any one or more of these items could prevent or delay exploration or development of the Company's mineral properties. If adequate infrastructure is not available in a timely manner, there can be no assurance that the exploration or development of the Company's mineral properties will be commenced or completed on a timely basis, if at all. Furthermore, unusual or infrequent weather phenomena, sabotage, government or other interference in the maintenance or provision of necessary infrastructure could adversely affect its operations.

Exploration operations depend on adequate infrastructure. In particular, reliable power sources, water supply, transportation and surface facilities are necessary to explore and develop mineral projects. Failure to adequately meet these infrastructure requirements or changes in the cost of such requirements could affect the Company's ability to carry out exploration and future development operations and could have a material adverse effect on the Company's business, financial condition, results of operations, cash flows or prospects.

The Company may purchase additional mining properties.

If the Company loses or abandons its interests in its mineral properties, there is no assurance that it will be able to acquire another mineral property of merit or that such an acquisition would be approved by the CSE, OTCQB or any other applicable security exchanges. There is also no guarantee that the CSE, OTCQB or any other applicable security exchanges, will approve the acquisition of any additional properties by the Company, whether by way of an option or otherwise, should the Company wish to acquire any additional properties.

The Company's operations are dependent on information technology systems that may be subject to network disruptions

The Company's operations depend on information technology ("IT") systems. These IT systems could be subject to network disruptions caused by a variety of sources, including computer viruses, security breaches and cyber-attacks, as well as disruptions resulting from incidents such as cable cuts, damage to physical plants, natural disasters, terrorism, fire, power loss, vandalism and theft. The Company's operations also depend on the timely maintenance, upgrade and replacement of networks, equipment, IT systems and software, as well as pre-emptive expenses to mitigate the risks of failures. Any of these and other events could result in information system failures, delays and/or increase in capital expenses. The failure of information systems or a component of information systems could, depending on the nature of any such failure, adversely impact the Company's reputation and results of operations.

Although to date the Company has not experienced any material losses relating to cyber-attacks or other information security breaches, there can be no assurance that the Company will not incur such losses in the future. The Company's risk and exposure to these matters cannot be fully mitigated because of, among other things, the evolving nature of these threats. As a result, cyber security and the continued development and enhancement of controls, processes and practices designed to protect systems, computers, software, data and networks from attack, damage or unauthorized access remain a priority. As cyber threats continue to evolve, the Company may be required to expend additional resources to continue to modify or enhance protective measures or to investigate and remediate any security vulnerabilities.

The Company is a reporting issuer and reporting requirements under applicable securities laws may increase legal and financial compliance costs

The Company is subject to reporting requirements under applicable securities law, the listing requirements of the CSE, the OTCQB, the SEC and other applicable securities rules and regulations. Compliance with these requirements can increase legal and financial compliance costs, make some activities more difficult, time-consuming or costly, and increase demand on existing systems and resources. Among other things, the Company is required to file annual, quarterly and current reports with respect to its business and results of operations and maintain effective disclosure controls and procedures and internal controls over financial reporting. In order to maintain and, if required, improve disclosure controls and procedures and internal controls over financial reporting to meet this standard, significant resources and management oversight is required. As a result, management's attention may be diverted from other business concerns, which could harm the Company's business and results of operations. The Company may need to hire additional employees to comply with these requirements in the future, which would increase its costs and expenses.

Risks Related to the Common Shares

The Company's Common Share price may be volatile and as a result, investors could lose all or part of their investment.

In addition to volatility associated with equity securities in general, the value of an investor's investment could decline due to the impact of any of the following factors upon the market price of the Common Shares:

- disappointing results from the Company's exploration efforts;
- decline in demand for its Common Shares;
- downward revisions in securities analysts' estimates or changes in general market conditions;
- technological innovations by competitors or in competing technologies;
- investor perception of the Company's industry or its prospects; and
- general economic trends.

The Company's Common Share price on the CSE has experienced significant price and volume fluctuations. Stock markets in general have experienced extreme price and volume fluctuations, and the market prices of securities have been highly volatile. These fluctuations are often unrelated to operating performance and may adversely affect the market price of the Common Shares. As a result, an investor may be unable to sell any Common Shares such investor acquires at a desired price.

Potential future sales under Rule 144 may depress the market price for the Company's Common Shares.

In general, under Rule 144, a person who has satisfied a minimum holding period of between 6 months and one-year and any other applicable requirements of Rule 144, may thereafter sell such shares publicly. A significant number of the Company's currently issued and outstanding Common Shares held by existing shareholders, including officers and directors and other principal shareholders, are currently eligible for resale pursuant to and in accordance with the provisions of Rule 144. The possible future sale of the Company's Common Shares by its existing shareholders, pursuant to and in accordance with the provisions of Rule 144, may have a depressive effect on the price of its Common Shares in the over-the-counter market.

The Company's Common Shares are currently deemed a "penny stock", which may make it more difficult for investors to sell their Common Shares.

The SEC has adopted regulations which generally define "penny stock" to be any equity security that has a market price less than $5.00 per Common Share or an exercise price of less than $5.00 per Common Share, subject to certain exceptions. The Company's s securities are covered by the penny stock rules, which impose additional sales practice requirements on broker-dealers who sell to persons other than established customers and "accredited investors". The term "accredited investor" refers generally to institutions with assets in excess of $5,000,000 or individuals with a net worth in excess of $1,000,000, exclusive of their principal residence, or annual income exceeding $200,000 or $300,000 jointly with their spouse. The penny stock rules require a broker-dealer, prior to a transaction in a penny stock not otherwise exempt from the rules, to deliver a standardized risk disclosure document in a form prepared by the SEC which provides information about penny stocks and the nature and level of risks in the penny stock market. The broker-dealer also must provide the customer with current bid and offer quotations for the penny stock, the compensation of the broker-dealer and its salesperson in the transaction and monthly account statements showing the market value of each penny stock held in the customer's account. The bid and offer quotations, and the broker-dealer and salesperson compensation information, must be given to the customer orally or in writing prior to effecting the transaction and must be given to the customer in writing before or with the customer's confirmation. In addition, the penny stock rules require that prior to a transaction in a penny stock not otherwise exempt from these rules, the broker-dealer must make a special written determination that the penny stock is a suitable investment for the purchaser and receive the purchaser's written agreement to the transaction. These disclosure requirements may have the effect of reducing the level of trading activity in the secondary market for the stock that is subject to these penny stock rules. Consequently, these penny stock rules may affect the ability of broker-dealers to trade its securities. The Company believes that the penny stock rules may discourage investor interest in and limit the marketability of its Common Shares.

The Company has never paid dividends on its Common Shares.

The Company has not paid dividends on its Common Shares to date, and it does not expect to pay dividends for the foreseeable future. The Company intends to retain its initial earnings, if any, to finance its operations. Any future dividends on Common Shares will depend upon the Company's earnings, its then-existing financial requirements, and other factors, and will be at the discretion of the Board.

FINRA has adopted sales practice requirements, which may also limit an investor's ability to buy and sell the Company's Common Shares.

In addition to the "penny stock" rules described above, FINRA has adopted rules that require that in recommending an investment to a customer, a broker-dealer must have reasonable grounds for believing that the investment is suitable for that customer. Prior to recommending speculative low-priced securities to their non-institutional customers, broker-dealers must make reasonable efforts to obtain information about the customer's financial status, tax status, investment objectives and other information. Under interpretations of these rules, FINRA believes that there is a high probability that speculative low-priced securities will not be suitable for at least some customers. FINRA requirements make it more difficult for broker-dealers to recommend that their customers buy the Company's Common Shares, which may limit an investor's ability to buy and sell its stock and have an adverse effect on the market for the Common Shares.

Investors' interests in the Company will be diluted and investors may suffer dilution in their net book value per share of Common Shares if the Company issues additional employee/director/consultant options or if the Company sells additional Common Shares and/or warrants to finance its operations.

In order to further expand the Company's operations and meet its objectives, any additional growth and/or expanded exploration activity will likely need to be financed through sale of and issuance of additional Common Shares, including, but not limited to, raising funds to explore the Mine. Furthermore, to finance any acquisition activity, should that activity be properly approved, and depending on the outcome of its exploration programs, the Company likely will also need to issue additional Common Shares to finance future acquisitions, growth, and/or additional exploration programs of any or all of its projects or to acquire additional properties. The Company will also in the future grant some or all of its directors, officers, and key employees and/or consultants options to purchase Common Shares as non-cash incentives. The issuance of any equity securities could, and the issuance of any additional Common Shares will, cause the Company's existing shareholders to experience dilution of their ownership interests.

If the Company issues additional Common Shares or decides to enter into joint ventures with other parties in order to raise financing through the sale of equity securities, investors' interests in the Company will be diluted and investors may suffer dilution in their net book value per share of Common Shares depending on the price at which such securities are sold.

The issuance of additional shares of Common Shares may negatively impact the trading price of the Company's securities.

The Company has issued Common Shares in the past and will continue to issue Common Shares to finance its activities in the future. In addition, newly issued or outstanding options, warrants, and broker warrants to purchase Common Shares may be exercised, resulting in the issuance of additional Common Shares. Any such issuance of additional Common Shares would result in dilution to the Company's shareholders, and even the perception that such an issuance may occur could have a negative impact on the trading price of the Common Shares.

The Common Shares could be influenced by research and reports that industry or securities analyst may be published.

The trading market for the Common Shares could be influenced by research and reports that industry and/or securities analysts may publish about the Company, its business, the market or its competitors. The Company does not have any control over these analysts and cannot assure that such analysts will cover the Company or provide favorable coverage. If any of the analysts who may cover the Company's business change their recommendation regarding the Company's stock adversely, or provide more favorable relative recommendations about its competitors, the stock price would likely decline. If any analysts who may cover the Company's business were to cease coverage or fail to regularly publish reports on the Company, it could lose visibility in the financial markets, which in turn could cause the stock price or trading volume to decline.

The Company is subject to the continued listing or trading criteria of the CSE and the OTCQB, and its failure to satisfy these criteria may result in delisting or removal of trading of its Common Shares from the CSE and the OTCQB.

The Company's Common Shares are currently listed for trading on the CSE and quoted on the OTCQB. In order to maintain the listing on the CSE and the quotation on the OTCQB or any other securities exchange the Company may trade on, the Company must maintain certain financial and share distribution targets, including maintaining a minimum number of public shareholders. In addition to objective standards, these exchanges may delist the securities of any issuer if, in the exchange's opinion: its financial condition and/or operating results appear unsatisfactory; if it appears that the extent of public distribution or the aggregate market value of the security has become so reduced as to make continued listing inadvisable; if the Company sells or disposes of its principal operating assets or ceases to be an operating company; if the Company fails to comply with the listing requirements; or if any other event occurs or any condition exists which, in their opinion, makes continued listing on the exchange inadvisable.

If the CSE, the OTCQB or any other exchange or quotation service were to delist or remove the trading of the Common Shares, investors may face material adverse consequences, including, but not limited to, a lack of trading market for the Common Shares, reduced liquidity, decreased analyst coverage, and/or an inability for the Company to obtain additional financing to fund its operations.

The Company faces risks related to compliance with corporate governance laws and financial reporting standards.

The Sarbanes-Oxley Act of 2002, as well as related new rules and regulations implemented by the SEC and the Public Company Accounting Oversight Board, require changes in the corporate governance practices and financial reporting standards for public companies. These laws, rules and regulations, including compliance with Section 404 of the Sarbanes-Oxley Act of 2002 relating to internal control over financial reporting, referred to as Section 404, materially increase the Company's legal and financial compliance costs and make certain activities more time-consuming and burdensome.

ITEM 1B. UNRESOLVED STAFF COMMENTS

Not Applicable.

ITEM 2. PROPERTIES

The Company's sole focus is the development and restart of its 100% owned flagship asset, the Bunker Hill mine (the "Mine") in Idaho, USA. The Mine remains the largest single producing mine by tonnage in the Silver Valley region of northwest Idaho, producing over 165 million ounces of silver and 5 million tons of base metals between 1885 and 1981. The Bunker Hill Mine is located within Operable Unit 2 of the Bunker Hill Superfund site (EPA National Priorities Listing IDD048340921), where cleanup activities have been completed.

The Bunker Hill Mine

The Mine is one of the most well-known base metal and silver mines in American history. Initial discovery and development of the Mine property began in 1885, and from that time until the Mine closed in 1981 it produced over 35.8 million tons of ore at an average mined grade of 8.76% lead, 4.52 ounces per ton silver, and 3.67% zinc, which represented 162Moz of silver, 3.16M lbs. of lead and 1.35M lbs. of zinc (Bunker Limited Partnership, 1985). Throughout the 95-year operating history of the mine, there were over 40 different orebodies discovered and mined, consisting of lead-silver-zinc mineralization. Although known for its significant lead and zinc production, 45-50% of the Net Smelter Value of its historical production came from its silver. The Company and Sullivan Mining Company had a strong history of regular dividend payments to shareholders from the time the Company went public in 1905 until it was acquired in a hostile takeover by Gulf Resources in 1968.

When the Mine first closed in 1981, it was estimated to still contain significant resources (Bunker Limited Partnership, 1985). The Mine and Smelter Complex were closed in 1981 when Gulf Resources was not able to continue to comply with new regulatory structures brought on by the passage of environmental statutes and as then enforced by the EPA. The Bunker Hill Lead Smelter, Electrolytic Zinc Plant and historic milling facilities were demolished about 25 years ago, and the area became part of the "National Priority List" for cleanup under EPA regulations, thereby pausing development of the Mine for over 30 years. The cleanup of the old smelter, zinc plant, and associated sites has been completed and management believes the Mine is well positioned for development and an eventual return to production.

A more detailed description of the Mine can be found in the "Technical Report Summary" section of this report, including the current Mineral Resource Estimate, Mineral Reserves, an economic summary, property description and ownership, geology and mineralization, environmental studies and permitting, metallurgical testing, mining method, recovery methods, and current exploration and development.

Restart Project Activities

In early 2020, a new management team comprised of former executives from Barrick Gold Corp. assumed leadership of the Company. Since that time, the Company conducted multiple exploration campaigns, published multiple economic studies and Mineral Resource Estimates, and advanced the rehabilitation and development of the Mine. In December 2021, it announced a project finance package with Sprott Private Resource Streaming & Royalty Corp., an amended Settlement Agreement with the EPA, and the purchase of the Bunker Hill Mine, setting the stage for a rapid restart of the Mine.

In January 2022, with the closing of the purchase of the Bunker Hill Mine, the funding of the $8,000,000 Royalty Convertible Debenture and $6,000,000 Series Convertible Debenture, and the announcement of an MOU for the purchase of the Pend Oreille process plant from a subsidiary of Teck Resources Limited, the Company embarked on a program of activities with the goal of achieving a restart of the Mine. Key milestones and achievements from January 2022 onwards have included the closing of the purchase of the Pend Oreille process plant, the demobilization of the process plant to the Bunker Hill site, the completion of demolition activities at the Pend Oreille site, a Prefeasibility Study envisaging the restart of the Mine, and the completion of the primary portion of the ramp decline connecting the 5 and 6 Levels of the Bunker Hill Mine.

Technical Report Summary

The following summary is extracted from the S-K 1300 Technical Report Summary, Bunker Hill Mine Pre-Feasibility Study, Coeur D' Alene Mining District Shoshone County, Idaho, USA with a Report Date of April 14, 2023 and an Effective Date of August 29, 2022 (the "TRS"). The following information does not purport to be a complete summary of the Technical Report Summary, is subject to all the assumptions, qualifications and procedures set out in the Technical Report and is qualified in its entirety with reference to the full text of the Technical Report Summary. Each of the Qualified Persons of the Technical Report Summary is an independent qualified person under the definitions of §229.1300 (Item 1300 of Regulation S-K) (each a "Qualified Person", and together the "Qualified Persons") and have approved the summary of the Technical Report Summary below.

Summary

The Technical Report Summary describes the mining and processing operations at the Company's 100% owned Bunker Hill Mine located near the town of Kellogg, Idaho.

The Technical Report Summary considers a processing approach at Bunker where Pb, Ag and Zn mineralization is mined underground. Mineralized material will be conventionally milled and then concentrated by flotation of lead and silver (Pb/Ag) followed by flotation of zinc (Zn). Metal rich concentrates will then be sold to smelters in North America or overseas. Mill tailings will be deposited underground in the historic mining voids located throughout the Project.

Economic and Life of Mine highlights of the Technical Report Summary are listed in Table 1-3 and Table 1-4. Table 1-1 lists the Mineral Resource Estimate for the Bunker Hill Mine and Table 1-2 lists the Mineral Reserves for the

Bunker Hill Mine. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resources will be converted into Mineral Reserves.

Mineral Resource Estimate

Geostatistics and estimates of mineralization were prepared by Resource Development Associates Inc. Industry accepted grade estimation techniques were used to develop global mineralization block models for the Newgard, Quill and UTZ zones. The Mineral Resource Estimate considers underground mining and mill processing as a basis for reasonable prospects of eventual economic extraction. The total Mineral Resource estimate for the Bunker Hill Mine is listed in Table 1-1 at a cutoff grade of NSR 70 $/ton. Mineral Resources are classified according to §229.1302(d)(1)(iii)(A) (Item 1302(d)(1)(iii)(A) of Regulation S-K).

Table 1-1 **Bunker Hill Mine Mineral Resource Estimate (Exclusive of Mineral Reserves), August 29, 2022 – Resource Development Asociates Inc.**

Classification	Ton (x1,000)	NSR ($/Ton)	Ag Oz/Ton	Ag Oz (x1,000)	Pb %	Pb Lbs. (x1,000)	Zn %	Zn Lbs. (x1,000)
Measured (M)	1,306	$ 109.14	0.91	1,186	2.24	58,597	4.91	128,257
Indicated (I)	2,627	$ 109.31	0.87	2,288	2.16	113,339	5.05	265,517
Total M & I	**3,933**	**$ 109.26**	**0.88**	**3,475**	**2.19**	**171,936**	**5.01**	**393,774**
Inferred	6,849	$ 125.84	1.52	10,402	2.87	392,802	4.93	675,026

(1) The Mineral Resource Estimate was prepared by Resource Development Associates Inc.
(2) Measured, Indicated and Inferred classifications are classified according to §229.1302(d)(1)(iii)(A) (Item 1302(d)(1)(iii)(A) of Regulation S-K).
(3) Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability
(4) Net smelter return (NSR) is defined as the return from sales of concentrates, expressed in US$/t, i.e.: NSR = (Contained metal) * (Metallurgical recoveries) * (Metal Payability %) * (Metal prices) – (Treatment, refining, transport and other selling costs). For the Mineral Resource Estimate, NSR values were calculated using updated open-cycle metallurgical results including recoveries of 85.1%, 84.2% and 88.2% for Zn, Ag and Pb respectively, and concentrate grades of 58% Zn in zinc concentrate, and 67% Pb and 12.13 oz/ton Ag in lead concentrate.
(5) Mineral Resources are estimated using a zinc price of $1.20 per pound, silver price of $20.00 per ounce, and lead price of $1.00 per pound.
(6) Historic mining voids, stopes and development drifting have been depleted from the Mineral Resource Estimate
(7) Totals may not add up due to rounding
(8) Mineral Resources are reported exclusive of Mineral Reserves. The reserves disclosed in the report represent measured mineral resources and indicated resources that were evaluated with modifying factors related to underground mining.

Mineral Reserves

Mineral Reserves have been estimated for the Quill, Newgard and UTZ sections of the Project. Measured and Indicated (M & I) Mineral Resources were converted to Probable Mineral Reserves for the mine. Measured Mineral Resources were converted to Probable Mineral Reserves because of uncertainties associated with modifying factors that were taken into account in the conversion from Mineral Resources to Mineral Reserves.

Measured and Indicated Resources were converted to Probable Mineral Reserves by evaluating operating cost, projected metal revenues and estimated stope shapes and geometries. The general widths, plunge and shape of the Quill and Newgard mineralization lends itself well to transverse (perpendicular to strike) long hole open stoping (LHOS) with fill utilizing rubber tire equipment. The UTZ deposit is more amenable to cut-and-fill (CF) methods due to its shape and geometry. Extraction of the planned mine shapes is assumed to be 100% of the NSR $80/ton plan. Breakeven NSR is $70/ton for LHOS and $75/ton for cut-and-fill stopes.

Mineral Reserves were classified in accordance with §229.1302(e)(2) (Item 1302(e)(2) of Regulation S-K). The mineral reserve statement is presented in Table 1-2. Mineral Reserves are estimated at an NSR value cutoff of $80/short ton at the reference point of saleable mill concentrates with an effective date of August 29, 2022.

Table 1-2 Bunker Hill Mineral Reserve Estimate, August 29, 2022 – Minetech, USA, LLC

Area	Description	Tons (x1,000)	Zn (%)	Pb (%)	Ag (opt)	Contained Ag (koz)	Contained Zn (klbs)	Contained Pb (klbs)	NSR (US$/st)
Newgard and Quill	Probable	3,111	5.87%	2.56%	1.12	3,492	365,118	159,326	133.53
	Plan Dilution	95	-	-	-	-	-	-	-
	Unplanned Dilution	156	-	-	-	-	-	-	-
UTZ	Probable	89	3.93%	3.74%	1.35	95	7,002	6,658	122.66
	Plan Dilution	1	-	-	-	-	-	-	-
	Unplanned Dilution	4			-	-	-	-	-
Total	Probable	3,200	5.81%	2.59%	1.12	3,587	372,120	165,984	133.23
	Plan Dilution	96	-	-	-	-	-	-	-
	Unplanned Dilution	160	-	-	-	-	-	-	-
	Total Plan	***3,360***	***5.30%***	***2.40%***	***1.02***	***3,587***	***186,060***	***82,992***	***126.88***

(1) Plan Dilution is zero grade waste included in the designed stope shapes and probable tonnages
(2) Unplanned dilution is 5% external dilution added at zero grade
(3) Mineral Reserves stated are inclusive of all above mentioned dilutions and are factored for ore loss due to mining activities
(4) Net smelter return (NSR) is defined as the return from sales of concentrates, expressed in US$/t, i.e.: NSR = (Contained metal) * (Metallurgical recoveries) * (Metal Payability %) * (Metal prices) – (Treatment, refining, transport and other selling costs). For the Mineral Reserve Estimate, NSR values were calculated using updated open-cycle metallurgical results including recoveries of 85.1%, 84.2% and 88.2% for Zn, Ag and Pb respectively, and concentrate grades of 58% Zn in zinc concentrate, and 67% Pb and 12.13 oz/ton Ag in lead concentrate.
(5) Mineral Reserves are estimated using a zinc price of $1.20 per pound, silver price of $20.00 per ounce, and lead price of $1.00 per pound.
(6) Historic mining voids, stopes and development drifting have been depleted from the Mineral Reserve Estimate
(7) Totals may not add up due to rounding

Economic Summary

The summary of the current projected financial performance of the Bunker Hill Mine is listed in Table 1-3. Sensitivities are summarized in Table 1-4.

Table 1-3 Bunker Hill Project Economic Summary

Year	**Initial Capex**	**1**	**2**	**3**	**4**	**5**	**TOTAL**	**ANNUAL AVERAGE**
Metal Prices								
Zinc ($/lb)	1.5	1.4	1.3	1.25	1.25	1.25	**1.29**	**1.29**
Lead ($/lb)	0.95	0.95	0.95	0.95	0.95	0.95	**0.95**	**0.95**
Silver ($/oz)	22	22	22	21.5	21.5	21.5	**21.7**	**21.7**
Mine plan								
Ore mined (kt)	77	652	655	655	655	665	**3,360**	**657**
Zinc grade (%)	5.90%	5.60%	4.70%	5.70%	5.70%	5.90%	**5.50%**	**5.50%**
Lead grade (%)	2.10%	2.40%	2.70%	2.90%	2.40%	1.90%	**2.50%**	**2.50%**
Silver grade (oz/t)	0.5	0.7	1.3	1.4	1.2	0.8	**1.1**	**1.1**

Zinc eq grade (%)	7.70%	8.00%	8.10%	9.40%	8.80%	8.20%	**8.50%**	**8.50%**
Production								
Zinc concentrate (t)	6,671	53,504	44,852	54,997	55,061	57,909	**272,995**	**53,265**
Lead concentrate (t)	2,091	20,945	23,577	25,078	20,955	16,605	**109,251**	**21,432**
Zn grade - Zn conc (%)	58.00%	58.00%	58.00%	58.00%	58.00%	58.00%	**58.00%**	**58.00%**
Pb grade - Pb conc (%)	67.00%	67.00%	67.00%	67.00%	67.00%	67.00%	**67.00%**	**67.00%**
Ag grade - Pb conc (oz/t)	14.4	18.6	31.5	30.1	31	27.4	**27.6**	**27.7**
Zn prod. - Zn conc (klbs)	7,738	62,065	52,029	63,796	63,871	67,174	**316,674**	**61,787**
Pb prod. - Pb conc (klbs)	2,802	28,067	31,593	33,605	28,080	22,251	**146,397**	**28,719**
Ag prod. - Pb conc (koz)	30	390	742	754	649	455	**3,020**	**598**
Zinc eq produced (klbs)	9,954	87,233	87,679	102,310	96,375	91,909	**475,460**	**93,101**
Cost metrics								
Mining ($/t)		35	38	37	35	41	**37**	**37**
Processing ($/t)		21	21	21	21	21	**21**	**21**
G&A ($/t)		9	9	9	9	6	**9**	**9**
Opex - total ($/t)		65	68	67	65	69	**67**	**67**
Sustaining capex ($/t)		18	22	19	41	8	**21**	**21**
Cash costs: by-prod. ($/lb Zn payable)		0.61	0.42	0.36	0.45	0.64	**0.5**	**0.5**
AISC: by-prod. ($/lb Zn payable)		0.82	0.74	0.59	0.95	0.73	**0.77**	**0.77**
FCF & Valuation ($000's)								
Zinc revenue		73,857	57,492	67,784	67,863	71,373	**338,368**	**67,674**
Lead revenue		25,330	28,513	30,328	25,342	20,081	**129,595**	**25,919**
Silver revenue		7,900	15,515	15,406	13,256	9,260	**61,337**	**12,267**
Gross revenue		107,087	101,520	113,518	106,461	100,714	**529,300**	**105,860**
TC - Zinc conc		-16,257	-11,138	-13,657	-13,673	-14,380	**-69,105**	**-13,821**
TC - Lead conc		-3,698	-4,162	-4,428	-3,700	-2,932	**-18,919**	**-3,784**
RC - Lead conc		-449	-882	-896	-771	-538	**-3,535**	**-707**
Land freight		-2,193	-2,019	-2,360	-2,239	-2,192	**-11,002**	**-2,200**
Net smelter return		84,491	83,319	92,178	86,079	80,672	**426,739**	**85,348**
Mining costs		-22,828	-24,592	-23,971	-22,927	-27,454	**-121,772**	**-24,354**
Processing costs		-13,766	-13,842	-13,842	-13,842	-14,053	**-69,346**	**-13,869**
G&A costs		-6,050	-6,063	-6,063	-6,063	-4,257	**-28,496**	**-5,699**
EBITDA		**41,847**	**38,822**	**48,302**	**43,247**	**34,908**	**207,126**	**41,425**
Sustaining capex		-11,475	-14,127	-12,651	-26,982	-5,215	**-70,450**	**-14,090**
Initial capex	-54,853						**-54,853**	**-**
Land & salvage value						12,281	**12,281**	**12,281**
Pre-tax free cash flow	**-54,853**	**30,372**	**24,695**	**35,650**	**16,266**	**41,974**	**94,103**	**29,791**
Taxes	-511	-1,394	-1,382	-2,218	-1,155	-1,224	-7,884	**-1,475**
Free cash flow	**-55,364**	**28,978**	**23,313**	**33,432**	**15,111**	**40,750**	**86,219**	**28,317**
NPV (5%)	**62,826**							

NPV (8%)	**51,813**
IRR (%)	**36.00%**
Payback (years)	**2.1**

Table 1-4 Sensitivity Analysis

	Metal Prices							Operating & Capital Costs						
			Zinc Price ($/lb)							Operating Costs (+/- %)				
			-20%	-10%	-	10%	20%			-20%	-10%	-	10%	20%
NPV (8%) ($M)	Lead Price ($/lb)	-20%	-7	13	32	51	68	Total Capital Costs (+/- %)	-20%	102	87	72	56	40
		-10%	4	23	42	60	78		-10%	92	77	62	46	30
		-	14	33	$\boxed{52}$	69	87		-	82	67	$\boxed{52}$	36	19
		10%	24	43	61	78	96		10%	72	57	42	25	9
		20%	34	53	70	87	105		20%	62	47	31	15	-1
			Zinc Price ($/lb)							Operating Costs (+/- %)				
			-20%	-10%	-	10%	20%			-20%	-10%	-	10%	20%
IRR (%)	Lead Price ($/lb)	-20%	4%	16%	26%	35%	44%	Total Capital Costs (+/- %)	-20%	71%	62%	53%	44%	34%
		-10%	10%	21%	31%	40%	49%		-10%	60%	52%	44%	35%	26%
		-	16%	26%	$\boxed{36\%}$	45%	53%		-	51%	44%	$\boxed{36\%}$	28%	19%
		10%	22%	32%	41%	49%	57%		10%	44%	37%	29%	21%	13%
		20%	27%	37%	45%	54%	62%		20%	37%	30%	23%	15%	7%

Property Description and Ownership

The Bunker Hill Mine is located in Shoshone County, Idaho with portions of the mine located within the cities of Kellogg and Wardner, Idaho in northwestern USA. The Kellogg Tunnel, which is the main access to the mine, is located at 47.53611°N latitude, 116.1381W longitude. The approximate elevation for the above cited coordinates is 2366 ft.

On December 15, 2021 BHMC signed a Purchase and Sale Agreement (PSA) with Placer Mining Corporation and both William and Shirley Pangburn to acquire full ownership of the subsequently listed mineral titles in addition to other Surface Rights and Real Property associated with land and structures of the Bunker Hill Mine.

On January 7, 2022, the Company closed the purchase of the Bunker Hill Mine. Mine assets were purchased for $7,700,000, with $300,000 of previous lease payments and a deposit of $2,000,000 applied to the purchase, resulting in cash paid at closing of approximately $5,400,000. The EPA obligation of $19,000,000 was assumed by Bunker Hill as part of the acquisition.

Geology and Mineralization

The Northern Idaho Panhandle Region in which the Bunker Hill Mine is located is underlain by the Middle Proterozoic-aged Belt-Purcell Supergroup of fine-grained, dominantly siliciclastic sedimentary rocks which extends from western Montana (locally named the Belt Supergroup) to southern British Columbia (locally named the Purcell Supergroup) and is collectively over 23,000 feet in total stratigraphic thickness.

Mineralization at the Bunker Hill Mine is hosted almost exclusively in the Upper Revett formation of the Ravalli Group, a part of the Belt Supergroup of Middle Proterozoic-aged, fine-grained sediments. Geologic mapping and interpretation progressed by leaps and bounds following the recognition of a predictable stratigraphic section at the Bunker Hill Mine and enabled the measurement of specific offsets across major faults, discussed in the following section. From an exploration and mining perspective, there were two critical conclusions from this research: all significant mineralized shoots are hosted in quartzite units where they are cut by vein structures, and the location of the quartzite units can be projected up and down section, and across fault offsets, to target extensions and offsets of known mineralized shoots and veins.

Mineralization at Bunker Hill Mine falls in four categories, described below from oldest to youngest events:

Bluebird Veins (BB): W—NW striking, SW-dipping, variable ratio of sphalerite-pyrite-siderite mineralization. Thick, tabular cores with gradational margins bleeding out along bedding and fractures.

Stringer/Disseminated Zones: Disseminated, fracture controlled and bedding controlled blebs and stringer mineralization associated with Bluebird Structures, commonly as halos to vein-like bodies or as isolated areas where brecciated quartzite beds are intersected by the W-NW structure and fold fabrics.

Galena-Quartz Veins (GQ): E to NE striking, S to SE dipping, quartz-argentiferous galena +/-siderite-sphalerite-chalcopyrite-tetrahedrite veins, sinuous-planar with sharp margins, cross-cut Bluebird Veins.

Hybrid Zones: Formed at intersections where GQ veins cut BB veins, with open space deposition of sulfides and quartz in the vein refraction in quartzite beds, and replacement of siderite in the BB vein structure by argentiferous galena from the GQ Vein.

Environmental Studies and Permitting

Because the mine is on patented mining claims (privately-owned land), only a limited number of permits are required for mining and milling operations. These relate to: (1) air quality and emissions from crushing, milling and processing and (2) any refurbishment of surface buildings that may require construction permits.

The Bunker Hill Mine is located within the Bunker Hill Superfund site (EPA National Priorities Listing IDD048340921). Cleanup activities have been completed in Operable Unit 2 of the Bunker Hill Superfund Site where the mine is located, though water treatment continues at the Central Treatment Plant (the "**CTP**") located near Bunker Hill Mine. The CTP is owned by the EPA and is operated by its contractors.

BHMC entered into a Settlement Agreement and Order on Consent with the US Environmental Protection Agency ("US EPA") and the US Department of Justice ("DOJ") on May 14, 2018. Section 9, Paragraph 33 of that agreement stipulates that BHMC must obtain a National Pollutant Discharge Elimination System ("NPDES") permit for effluent discharged by Bunker Hill Mine by May 14, 2023. This obligation exists and the deadline will occur at a point in time where restart activities are planned to occur.

BHMC will initiate a voluntary Environmental, Social and Health Impact Assessment ("ESHIA") for the activities described in the Technical Report Summary and for its business model as a whole. This study is projected for completion in 2024 and will conform to ISO, IFC and GRI standards.

Metallurgical Testing

Resource Development Inc. (Rdi) initiated metallurgical test work on three samples designated Newgard, Quill and Utz with the primary objective of determining the process flowsheet and the metal recoveries and concentrate grades. Flotation testing was completed through locked-cycle testing, the results of which are displayed in table 1-5

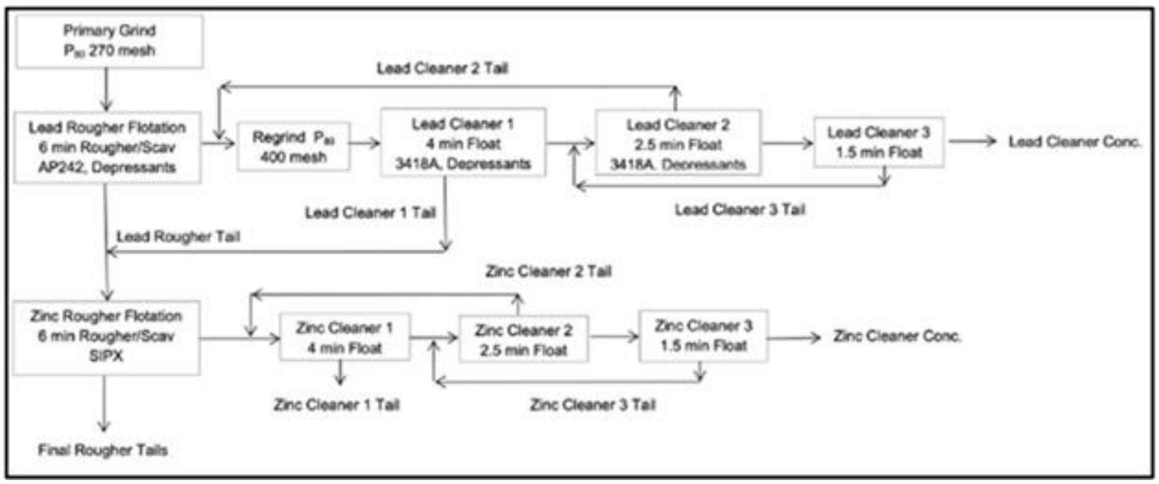
Table 1-5 Summary of Locked-Cycle Flotation Test Results

Product	Overall Weight %	Overall Pb Recovery %	Overall Zn Recovery %	Overall Au Recovery %	Overall Ag Recovery %	Conc. Grade Pb (%)	Conc. Grade Zn (%)	Conc. Grade Au (g/mt	Conc. Grade Ag (g/mt)
Lead 3rd Cleaner Conc.	7.1	88.2	9.2	47.8	84.2	47.6	6.91	2.16	410
Zinc 3rd Cleaner Conc.	8.7	3.5	85.1	16.7	10.9	1.55	52.4	0.62	43.5
Rougher Tail	80.7	5.3	3.2	25.5	0.9	0.25	0.21	0.10	0.40
Zinc 1st Cleaner Tail	3.6	2.9	2.5	9.9	3.9	3.14	3.71	0.89	37.7
Combined Tails	84.2	8.3	5.7	35.5	4.9	0.38	0.36	0.13	1.99
Calculated Head	100.0	100.0	100.0	100.0	100.0	3.78	5.25	0.32	34.0

The open-cycle and locked-cycle tests were completed at a primary grind of P_{80} 270 mesh for rougher flotation. Rougher scavenger flotation was included in both the lead and zinc circuits to increase the amount of value sent to the cleaner stages. Regrind of the lead rougher concentrate with a pebble mill was completed to a particle size of approximately P_{80} 400 mesh for cleaner flotation. No regrind was completed with the zinc rougher concentrate.

BHMC has contracted SGS Canada Inc (SGS) to conduct a metallurgical study to further evaluate and optimize metal recovery for the Bunker Hill Project. The primary objective of the test program is to complete metallurgical test work to improve met results over the Pre-feasibility Study (PFS) performed by Rdi for the Bunker Hill Project.

Figure 1-1 Locked-Cycle Test Process Flowsheet



Mining Method

Long-hole stoping with fill (LHOS), cut-and-fill and possibly room-and-pillar mining with fill are the only methods viable for sustained operations today. LHOS is the preferred mining method with limited cut-and-fill mining at Bunker Hill Mine. Room-and-pillar mining is not in the current plan. Timbered ground support has been replaced with newer ground support technology of rock bolts, mesh, shotcrete and steel sets as required.

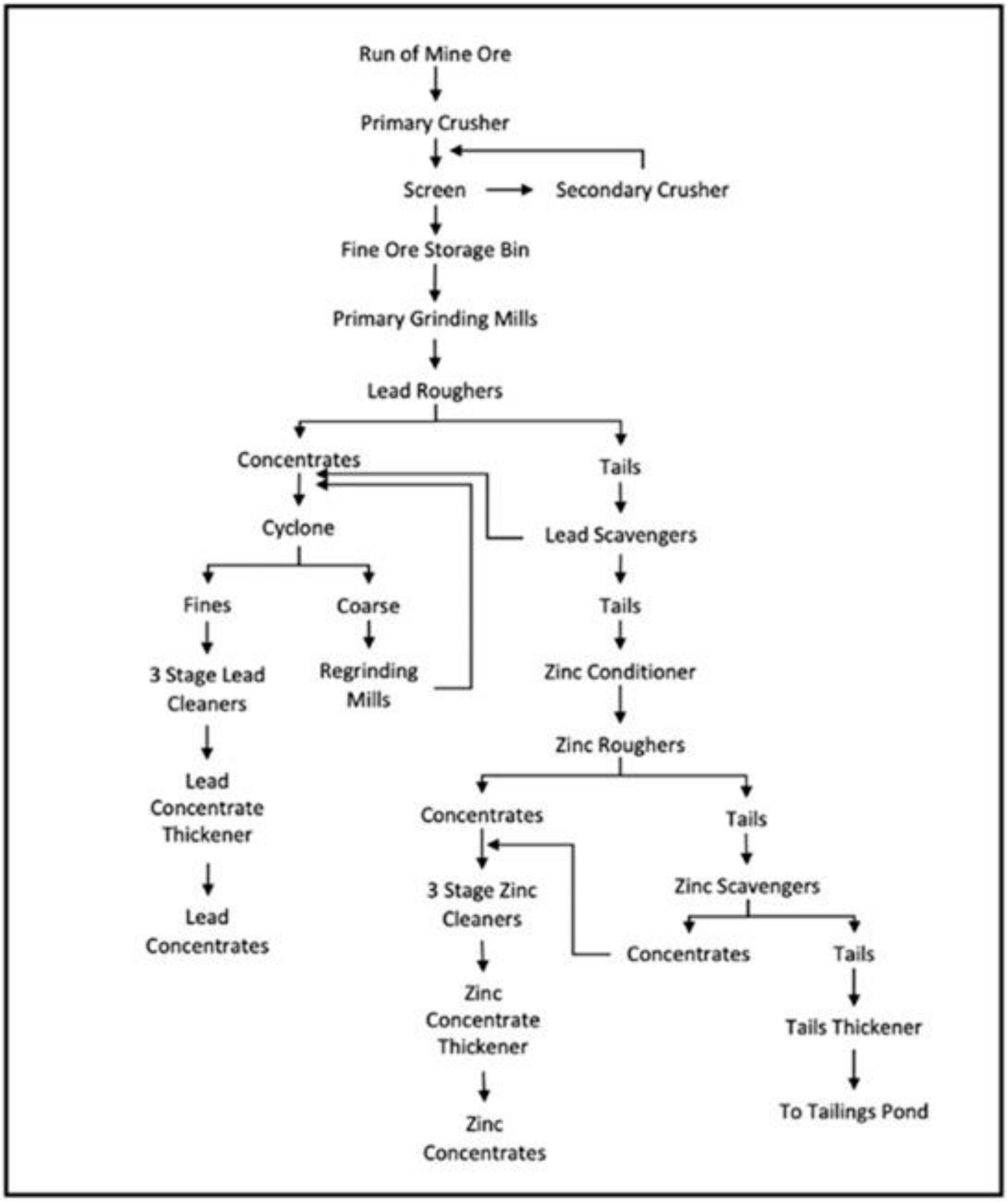
Beginning in October of 2021 and completed in April of 2022, BHMC conducted a geotechnical investigation of the underground conditions at the Bunker Hill Mine. Data collection involved a data analysis of RQD values logged with previous exploration drilling, geotechnical logging of recently drilled rock cores and an extensive investigation of pre-existing underground excavations and development. Ground conditions are generally good to excellent at Bunker Hill Mine and the rest of the mines in the Silver Valley. Bunker Hill Mine does not have a history of rock burst events that are frequent in the deeper mines to the east.

Recovery Methods

Bunker Hill plans to re-construct a crush-grind-flotation-concentration mill from the nearby Pend Oreille (PO) mine in northern Washington on the Bunker Hill Kellogg Mine Yard. There currently is a large building that housed the historic machine shop at the Bunker Hill mine that will first need to be dismantled and removed for access to the existing slab. The future structures to house the grind-flotation-concentration circuit, as well as the secondary crushing circuit and concentrate storage facilities will need to be constructed.

The process consists of a primary and secondary ore crushing circuit, then a primary grinding circuit followed by two separate flotation circuits to recover lead, zinc, silver and gold into two separate concentrate products; a lead, silver, gold concentrate and a zinc concentrate. Approximately 648,000, short tons of ore will be processed a year at a rate of 1,800 stpd, or 79 stph at 95% availability.

Figure 1-2 Bunker Hill Process Flowsheet



Current Exploration and Development

Bunker Hill has a rare exploration opportunity available at the Bunker Hill Mine and has embarked on a new path to fully maximize the potential. A treasure trove of geologic and production data has been organized and preserved in good condition in the mine office since the shutdown of major mine operations in the early 1980s. This data represents 70+ years of proper scientific data and sample collection, with high standards of accuracy and precision that were generally at or above industry standards at the time.

The Company saw the wealth of information that was available but not readily usable and embarked on a scanning and digitizing program. From this they were able to build a 3D digital model of the mine workings and 3D surfaces and solids of important geologic features. To add to this, all of the historic drill core lithology logs and assay data (>2900 holes) was entered into a database and imported with the other data into Maptek Vulcan 3D software.

In addition to both continued geologic digitization and the completed 2021 exploration drill program, the Company has performed a geophysical survey over the summer of 2021. The survey was conducted as a ground geophysical 3DIP survey through DIAS Geophysical Ltd out of Saskatoon, SK.

Conclusions

The Pre-Feasibility level analyses demonstrates that the restart of the Bunker Hill mine can reasonably be expected to generate a positive return on investment with an after-tax IRR of 36% based on the reserves presented. It is reasonable to expect the conversion of Inferred resources to Indicated resources and indicated resources to measured resources to continue. Inferred Mineral Resources are considered too geologically speculative to have economic considerations applied to them to be classified as a Mineral Reserve.

The Technical Report Summary is based on all available technical and scientific data available as of August 29, 2022. Mineral Resources are considered by the QP to meet the reasonable prospects of eventual economic extraction due two main factors; 1) cut-off grades are based on scientific data and assumptions related to the project and 2) Mineral Resources are estimated only within blocks of mineralization that have been accessible in the past by mining operations as well as by using generally accepted mining and processing costs that are similar to many projects in Idaho.

Recommendations

Continued analysis and interpretation of the geophysical survey results should aid to guide future exploration activities outside of historical mine working areas. Additional exploration drilling with the advancement of underground mine development is also advised due to the proximity of future development to under-explored areas of historical workings. Continued digitization and interpretation of historical mapping and research will aid to guide future underground and surface exploration activities.

Completion of issued for construction (IFC) level drawings for the mineral processing facilities is recommended.

Completion of IFC level engineering drawings related to the paste backfill plant are recommended. Final tails product material generated from additional metallurgical testing will work to optimize binder compositions and have the potential to reduce backfill OPEX costs.

Additional geotechnical studies are recommended with the advancement of underground development. Continued geotechnical diamond drilling associated with future resource delineation and exploration drilling activities will provide a better sample set for rock strength testing and geotechnical logging. Future underground development will also allow for the investigation of previously mined areas and association of historical span allowances based on previous ground support methods.

Additional resource delineation and conversion drilling and mine block modeling should continue to increase the conversion of Inferred to Indicated Resources.

Table 1-6 Proposed Work Program to Advance Bunker Hill

Activity		Amount
Geophysical Interpretation and Additional Geophysics	$	0.05M
Environmental Studies	$	0.03M
Geotechnical Studies	$	0.15M
Mill and Process Plant Engineering	$	1.70M
Hydraulic Backfill and Tailing Placement Engineering	$	0.50M
Total Recommended Budget	**$**	**2.43M**

Project Infrastructure

The Bunker Hill complex is a mature mine with much of the underground infrastructure and development still in place. The mill, smelter and tailing impoundment have been removed and these sites have been reclaimed. Part of the reclamation included surface water diversion structures which are still in use and are maintained in good condition. The original Bunker Hill mine offices, car and maintenance shops, and change house are located near the Kellogg Tunnel (KT) portal and are in serviceable condition.

Bunker Hill is located in Kellogg Idaho along the Interstate 90 corridor on the west side of what is traditionally known as the Silver Valley. It is 60 miles from the Spokane, WA airport to the west and 125 miles to the Missoula, MT airport to the east. The Silver Valley of north Idaho is a desirable place to live and is home to an enthusiastic and talented underground mining work force.

Mine power requirements will be met with the Avista Kellogg substation, located next to the Bunker Hill main offices supplying power to the mine and other local consumers. There are two existing distribution lines now supplying the mine from the Kellogg Avista substation. One feeds the surface mine facilities and the underground loads from the Kellogg side, the other feeds the Wardner mine yard and facilities. The current 3-phase 2.5kV mine distribution system on the Kellogg side is in the process of being upgraded to 3-phase 13.2kV.

Mine discharge water now gravity drains out the 9-level through the Kellogg Tunnel via a ditch adjacent to the rail line to the portal. It is then routed to a water treatment plant constructed by the EPA and currently operated by the Idaho Department of Environmental Quality (IDEQ).

BHMC commissioned Patterson & Cooke North America to perform tradeoff studies for costing and operating the mine backfill and tailing placement facilities. Results from the tradeoff studies led to the location of the plant on surface, both adjacent to the mill and at Wardner. Tailings thickening will take place inside the mill/process facility building, with the underflow being pumped to the tailings filtration plant located adjacent to the mill/process building. Vacuum filtration will take the thickened tailings and produce a filter cake material which will be deposited and stored in a load-out facility at the plant. A surface loader will transfer the filter cake tailings into overland haul trucks to deliver the material up to the Wardner side of operations along the return route from ROM ore haulage. Once delivered to the storage facility at Wardner, material will be loaded into the paste plant, combined with an ordinary cement binder, and subsequently pumped underground via a reticulated piping system.

ITEM 3. LEGAL PROCEEDINGS

Other than as described below, neither the Company nor its property is the subject of any current, pending, or threatened legal proceedings. The Company is not aware of any other legal proceedings in which any director, officer or affiliate of the Company, any owner of record or beneficially of more than 5% of any class of the Company's voting securities, or any associate of any such director, officer, affiliate or security holder of the Company, is a party adverse to the Company or any of its subsidiaries or has a material interest adverse to the Company or any of its subsidiaries.

On July 28, 2021, a lawsuit was filed in the US District Court for the District of Idaho brought by Crescent Mining, LLC ("Crescent"). The named defendants include Placer Mining, Robert Hopper Jr., and the Company. The lawsuit alleges that Placer Mining and Robert Hopper Jr. intentionally flooded the Crescent Mine during the period from 1991 and 1994, and that the Company is jointly and severally liable with the other defendants for unspecified past and future costs associated with the presence of AMD in the Crescent Mine. The plaintiff has requested unspecified damages. On September 20, 2021, the Company filed a motion to dismiss Crescent's claims against it, contending that such claims are facially deficient. On March 2, 2022, Chief US District Court Judge, David C. Nye granted in part and denied in part the Company's motion to dismiss. The court granted the Company's motion to dismiss Crescent's Cost Recovery claim under CERCLA Section 107(a), Declaratory Judgment, Tortious Interference, Trespass, Nuisance and Negligence claims. These claims were dismissed without prejudice. The court denied the motion to dismiss filed by Placer Mining Corp. for Crescent's trespass, nuisance and negligence claims. Crescent later filed an amended complaint on April 1, 2022. Placer Mining Corp. and Bunker Hill Mining Corp are named as co-defendants. Bunker Hill responded to the amended filing, refuting and denying all allegations made in the complaint except those that are assertions of fact as a matter of public record. The Company believes Crescent's lawsuit is without merit and intends to vigorously defend itself, as well as Placer Mining Corp. pursuant to the Company's indemnification of Placer Mining Corp in the Sale and Purchase agreement executed between the companies for the Mine on December 15, 2021.

On October 26, 2021, the Company asserted claims against Crescent in a separate lawsuit. Bunker Hill Mining Corporation v. Venzee Technologies Inc. et al, Case No. 2:21-cv-209-REP, filed in the same court on May 14, 2021. The Company has subsequently executed a tolling agreement with Venzee in exchange for dropping its lawsuit. The Company originally filed this lawsuit on May 14, 2021 against other parties but has since filed an amended complaint to include its claims against Crescent. This lawsuit has been consolidated into the lawsuit Crescent filed on July 28, 2021.

ITEM 4. MINE SAFETY DISCLOSURES

The enacted Dodd-Frank Wall Street Reform and Consumer Protection Act ("the Act") requires the operators of mines to include in each periodic report filed with the SEC certain specified disclosures regarding the Company's history of mine safety. The information concerning mine safety disclosures required by the Act and this Item is included in Exhibit 95 to this report.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information

Our common shares are traded on Canadian Securities Exchange under the symbol "BNKR" and on the OTCQB under the symbol "BHLL".

Stockholders

As of April 17, 2023, there were approximately 157 stockholders of record of our common shares and, according to our estimates, approximately 500 beneficial owners of our common shares.

Unregistered Sales of Securities

On April 1, 2022, the Company closed a private placement of 37,849,325 special warrants of the Company and a non-brokered private placement of 1,471,664 units of the Company for aggregate gross proceeds of approximately $9,384,622 (C$11,796,297). Related parties, including management, directors, and consultants, participated in the special warrant private placement for a total of 4,809,160 shares (included in the total above). The special warrants of the Company were issued at a price of C$0.30 per special warrant. Each special warrant of the Company became automatically exercisable on June 3, 2022. Each unit of the Company consists of one share of common stock and one warrant of the Company. Each warrant entitles the holder to acquire one share of common stock of the Company for C$0.37 until April 1, 2025. The offering of special warrants of the Company was led by Echelon Wealth Partners Inc. and included BMO Nesbitt Burns Inc. and Laurentian Bank Securities Inc. (collectively, the "Agents"). In connection with the private placement, the Agents and other eligible parties received (i) cash commission in the amount of $563,968 and (ii) compensation options exercisable to acquire an aggregate of 1,879,892 units of the Company (each, a "Compensation Unit") at C$0.30 per unit until April 1, 2024. Each Compensation Unit consists of one share of common stock and one warrant of the Company. Each warrant entitles the holder thereof to acquire one warrant share at a price of $0.37 per warrant share until April 1, 2024. The Company relied on the exemption from registration under Section 4(a)(2) of the U.S. Securities Act of 1933, as amended, or Rule 506 of Regulation D, or Regulation S, and in reliance on similar exemptions under applicable state laws, for purposes of the private placement.

Issuer Purchases of Equity Securities

None.

ITEM 6. SELECTED FINANCIAL DATA

Not Applicable.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

SPECIAL NOTE OF CAUTION REGARDING FORWARD-LOOKING STATEMENTS

Certain statements in this report, including statements in the following discussion, are what are known as "forward looking statements", which are basically statements about the future. For that reason, these statements involve risk and uncertainty since no one can accurately predict the future. Words such as "plans," "intends," "will," "hopes," "seeks," "anticipates," "expects "and the like often identify such forward looking statements, but are not the only indication that a statement is a forward-looking statement. Such forward looking statements include statements concerning the Company's plans and objectives with respect to the present and future operations of the Company, and statements which express or imply that such present and future operations will or may produce revenues, income or profits. Numerous factors and future events could cause the Company to change such plans and objectives or fail to successfully implement such plans or achieve such objectives, or cause such present and future operations to fail to produce revenues, income or profits. Therefore, the reader is advised that the following discussion should be considered in light of the discussion of risks and other factors contained in this report and in the Company's other filings with the SEC. No statements contained in the following discussion should be construed as a guarantee or assurance of future performance or future results.

Background and Overview

The Company's sole focus is the development and restart of its 100% owned flagship asset, the Bunker Hill mine (the "Mine") in Idaho, USA. The Mine remains the largest single producing mine by tonnage in the Silver Valley region of northwest Idaho, producing over 165 million ounces of silver and 5 million tons of base metals between 1885 and 1981. The Bunker Hill Mine is located within Operable Unit 2 of the Bunker Hill Superfund site (EPA National Priorities Listing IDD048340921), where cleanup activities have been completed.

The Company purchased the Bunker Hill Mine on January 7, 2022 for $5,400,000 in cash. Prior to purchasing the Mine, the Company had entered into a series of agreements with Placer Mining Corporation ("Placer Mining"), the prior owner, for the lease and option to purchase the Mine. The first of these agreements was announced on August 28, 2017, with subsequent amendments and/or extensions announced on November 1, 2019, July 7, 2020, and November 20, 2020.

Under the most recent of these agreements, the Company was required to make payments pursuant to an agreement with the U.S. Environmental Protection Agency ("EPA") whereby for so long as the Company leases, owns and/or occupies the Mine, the Company would make payments to the EPA on behalf of Placer Mining in satisfaction of the EPA's claim for historical water treatment cost recovery in accordance with the Settlement Agreement reached with the EPA in 2018. Immediately prior to the purchase of the Mine, the Company's liability to EPA in this regard totaled $11,000,000. Concurrent with the purchase of the Mine, the Company assumed incremental liabilities of $8,000,000 to the EPA, consistent with the terms of the amended Settlement Agreement with the EPA that was executed in December 2021 (see "EPA 2018 Settlement Agreement & 2021 Amended Settlement Agreement" in the "Our Business" section above).

In early 2020, a new management team comprised of former executives from Barrick Gold Corp. assumed leadership of the Company. Since that time, the Company conducted multiple exploration campaigns, published multiple economic studies and Mineral Resource Estimates, and advanced the rehabilitation and development of the Mine. In December 2021, it announced a project finance package with Sprott Private Resource Streaming & Royalty Corp., an amended Settlement Agreement with the EPA, and the purchase of the Bunker Hill Mine, setting the stage for a rapid restart of the Mine.

In January 2022, with the closing of the purchase of the Bunker Hill Mine, the funding of the $8,000,000 Royalty Convertible Debenture and $6,000,000 Series Convertible Debenture, and the announcement of an MOU for the purchase of the Pend Oreille process plant from a subsidiary of Teck Resources Limited, the Company embarked on a program of activities with the goal of achieving a restart of the Mine. Key milestones and achievements from January 2022 onwards have included the closing of the purchase of the Pend Oreille process plant, the demobilization of the process plant to the Bunker Hill site, the completion of demolition activities at the Pend Oreille site, a Prefeasibility Study envisaging the restart of the Mine, and the completion of the primary portion of the ramp decline connecting the 5 and 6 Levels of the Bunker Hill Mine.

Results of Operations

The following discussion and analysis provide information that is believed to be relevant to an assessment and understanding of the results of operation and financial condition of the Company for the years ended December 31, 2021 and 2022. Unless otherwise stated, all figures herein are expressed in U.S. dollars, which is the Company's functional currency.

Comparison of the year ended December 31, 2022 and the year ended December 31, 2021

<u>Revenue</u>

During the year ended December 31, 2022, the Company generated no revenue (year ended December 31, 2021 - $nil).

<u>Expenses</u>

During the year ended December 31, 2022, the Company reported total operating expenses of $16,487,161 as compared to total operating expenses of $18,752,504 for the year ended December 31, 2021.

The decrease in operating expenses was impacted by a shift in focus by the company from exploration related activities prior to the purchase of the Mine and process plant (purchased in January 2022 and June 2022 respectively) in 2021, to development related activities in 2022. For financial accounting purposes, the Company reported all direct exploration expenses under the exploration expense line item in consolidated statements of income (loss) and comprehensive income (loss) for the year ended December 31, 2021, which totalled $13,530,819. With the purchase of the Mine in early January 2022 and concurrent shift to development related activities to advance mine restart efforts, the Company reported exploration expenses of $nil for the year ended December 31, 2022, and reported $7,827,656 of mine preparation expenses associated with these development activities. This excludes costs capitalized to property, plant and equipment during the year ended December 31, 2022.

The increase in consulting fees and wages ($5,477,765 for the year ended December 31, 2022 compared to $1,533,954 for the year ended December 31, 2021) reflects (i) the engagement of numerous engineering, geological and other professional firms to assist the Company in consummating several complex debt and equity financings, the purchases of the mine and processing plant, the EPA financial assurance requirements, fair value measurements of complex instruments, and advancement of project activities, and (ii) an increase in employees concurrent with a ramp-up in development activities through 2022.

Upon the release of the prefeasibility study dated September 30, 2022, the Company determined that the costs of the mine after this point constituted mine development (capitalized to non-current assets) instead of mine preparation costs (expense) given the existence of probable mineral reserves and an economic study incorporating them. Certain indirect expenses may be reported as operation and administration expense or consulting expense on the consolidated statements of income and comprehensive income.

Net Income and Comprehensive Income

The Company had net income of $898,591 for the year ended December 31, 2022 (net loss of $6,402,277 for the year ended December 31, 2021). In addition to the decrease in operating expenses (as described above), net income in the year ended December 31, 2022 was positively impacted by a gain on EPA settlement of $8,614,103 (year ended December 31, 2021: $nil) resulting from the reclassification of $17,000,000 of current liabilities to non-current liabilities, and a $3,395,938 increase in the gain due to change in derivative liability ($15,696,391 for the year ended December 31, 2022 compared to $12,300,453 for the year ended December 31, 2021) driven by a proportionally greater decline in the Company's share price in 2022 relative to 2021. This was partially offset by impacts from the $29,000,000 of convertible debenture financings that were entered into during the year ended December 31, 2022, including an increase in interest expense of $3,279,819 ($3,382,559 for the year ended December 31, 2022 compared to $102,740 for the year ended December 31, 2021), an increase in debenture finance costs of $1,230,540 (year ended December 31, 2021: $nil) and an increase in the loss on fair value of convertible debentures of $1,140,537 (year ended December 31, 2021: $nil) and increase in finance costs $945,507 (year ended December 31, 2021: $nil).

The Company had comprehensive income of $1,152,466 for the year ended December 31, 2022 (comprehensive loss of $6,402,277 for the year ended December 31, 2021). Comprehensive income for the year ended December 31, 2022 is inclusive of a $253,875 gain on change in fair value on own credit risk ($nil for the year ended December 31, 2021) relating to the convertible debentures entered into during the year ended December 31, 2022.

Liquidity and Capital Resources

Going Concern

These consolidated financial statements have been prepared on a going concern basis. The Company has incurred losses since inception resulting in an accumulated deficit of $71,592,559 and further losses are anticipated in the development of its business. The Company does not have sufficient cash to fund normal operations and meet debt obligations for the next 12 months without deferring payment on certain current liabilities and/or raising additional funds. In order to continue to meet its fiscal obligations in the current fiscal year and beyond, the Company must seek additional financing. This raises substantial doubt about the Company's ability to continue as a going concern. Its ability to continue as a going concern is dependent upon the ability of the Company to generate profitable operations in the future and/or to obtain the necessary financing to meet its obligations and repay its liabilities arising from normal business operations when they come due. The accompanying consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Management is considering various financing alternatives including, but not limited to, raising capital through the capital markets, debt and closing on the multi-metals stream transaction. These consolidated financial statements do not include any adjustments relating to the recoverability and classification of recorded assets, or the amounts of and classification of liabilities that might be necessary in the event the Company cannot continue in existence.

Debt and Equity Financings

As described above, during year ended December 31, 2022, the Company closed on three convertible debentures totaling $29,000,000, a loan facility of $5,000,000, and equity financings (net of issuance costs) totaling $7,767,849. The proceeds of these financings were primarily used to purchase the Bunker Hill Mine and the processing plant, the satisfaction of short-term obligations to the EPA (including financial assurance commitments, cost recovery and water treatment payments), advancement of mine restart activities and the funding of working capital requirements.

Current Assets and Total Assets

As of December 31, 2022, the Company's balance sheet reflects that the Company had: (i) total current assets of $7,741,052, compared to total current assets of $3,622,548 at December 31, 2021 – an increase of $4,118,504; and (ii) total assets of $32,929,892, compared to total assets of $4,071,796 at December 31, 2021 – an increase of $28,858,096. The increase in current assets was primarily due to an increase in restricted cash as a result of the proceeds from the convertible debentures and equity financings, and from increases in prepaid expenses and deposits. Total assets increased principally due to the purchase of, and costs capitalized to, the Bunker Hill Mine and process plant.

Current Liabilities and Total Liabilities

As of December 31, 2022, the Company's balance sheets reflects that the Company had total current liabilities of $10,155,582 and total liabilities of $59,106,835, compared to total current liabilities of $22,795,277 and total liabilities of $38,314,164 as of December 31, 2021. The decrease in current liabilities is primarily reflective of financing and assurance activities that moved the EPA cost recovery liability from current to long-term liabilities. Total liabilities increased as a result of the closing of the three convertible debentures, one loan facility and movement of the EPA cost recovery liability from current to long term, offset by the decrease in the long-term derivative warrant liability and promissory note.

Working Capital and Shareholders' Deficit

As of December 31, 2022, the Company had a working capital deficit of $2,414,530 and a shareholders' deficiency of $26,176,943 compared to a working capital deficit of $19,172,729 and a shareholders' deficiency of $34,242,368 as of December 31, 2021. The working capital deficit decreased during the year ended December 31, 2022 primarily due to funding from debt and equity financings, and the reclassification of cost recovery liabilities from current to long-term. The shareholders' deficiency decreased primarily due to proceeds from equity financing in the second quarter of 2022, and comprehensive net income in 2022.

Cash Flow

During the year ended December 31, 2022, unrestricted cash increased by $222,042 as a result of cash provided from the closing of the convertible debentures, loan facility and equity financings, with proceeds used to satisfy short-term obligations with the EPA, purchase of the Bunker Hill Mine and a processing plant, partial repayment of the outstanding promissory note, advancement of mine restart activities, and funding of working capital requirements. In addition to the above, restricted cash increased $6,476,000 during the year end December 31, 2022.

During the year ended December 31, 2022, $22,498,307 was used in operating activities, primarily due to the securing of the Company's financial assurance obligations with the EPA, payments made to the EPA in satisfaction of cost recovery and water treatment payables, funding of mine restart activities, and other working capital requirements. This compares with cash used in operating activities of $11,372,153 for the year ended December 31, 2021.

During the year ended December 31, 2022, cash of $11,174,672 was used in investing activities primarily for the purchase of the Bunker Hill Mine, a process plant, equipment, and real estate, compared with $94,693 used for investing activities in the year ended December 31, 2021.

During the year ended December 31, 2022, cash of $40,371,021 was provided by financing activities primarily due to proceeds from the three convertible debentures, one loan facility and the equity financings, partially offset by cash used for repayment of a promissory note, compared with cash of $8,384,248 provided by financing activities in the year ended December 31, 2021.

Subsequent Events

Events occurring subsequent to December 31, 2022, as disclosed above in the Liquidity and Capital Resources section. In addition, the Company had the following subsequent events.

Share Issuance

On January 10, 2023, the Company issued 6,377,272 common shares in connection with its election to satisfy interest payments under the outstanding convertible debentures for the three months ending December 31, 2022.

On March 31, 2023, the Company issued 8,464,288 common shares in connection with its election to satisfy interest payments under the outstanding convertible debentures for the three months ending March 31, 2023.

Corporate Update

On Feb 28, 2023, the Company reported that it had temporarily paused discretionary projects and procurement activities until the completion of its financing initiatives. Primarily due to the inability to procure certain long-lead items that were planned to be ordered by February 2023, and longer estimated delivery times thereof, the Company now expects the Bunker Hill Mine restart to be achieved in 2024. Total project capital expenditures are not expected to be materially impacted given the Company's ability to reschedule discretionary expenditures and manage a modest fixed cost base.

Teck Warrant Amendment

On March 15, 2023, the Company amended the exercise price of 10,416,667 common stock purchase warrants of the Company (the "Warrants") and the expiry date of the warrants to March 31, 2023. The Warrants comprise units of the Company issued to Teck Resources Limited ("Teck") on a private placement basis on May 13, 2022, in consideration for the Company's acquisition of the Pend Oreille process plant. Each Warrant entitles the holder thereof to purchase one share of common stock of the Company (each, a "Warrant Share") at an exercise price of C$0.37 per Warrant Share at any time on or prior to May 12, 2025. The Company amended the exercise price of the Warrants from C$0.37 to C$0.11 per Warrant Share (the "Amended Exercise Price") and amend the expiry date from May 12, 2025, to March 31, 2023. Following the amendment of the terms of the warrants, Teck exercised all 10,416,667 warrants at an exercise price of C$0.11, for aggregate gross proceeds of approximately C$1,145,834 to the Company.

Prospectus Offering Termination and Private Placement

On February 15, 2023, the Company reported that it intended to terminate its previously announced prospectus offering of Common Shares following its determination that effectiveness of a registration statement on Form S-1 would not be achievable in a time frame consistent with its capital requirements. Concurrently, the Company announced that it had entered into an agreement with a syndicate of agents in connection with a proposed private placement of up to $9,000,000 of special warrants of the Company (the "Special Warrants").

On March 28, 2023, the Company announced the closing of its private placement of the Special Warrants by issuing 51,633,727 Special Warrants at a price of C$0.12 per Special Warrant, for aggregate gross proceeds of C$6,196,047. Each Unit consists of one share of common stock of the Company (each, a "Unit Share") and one common stock purchase warrant of the Company (each, a "Warrant"). Each whole Warrant entitles the holder thereof to acquire one share of common stock of the Company (a "Warrant Share", and together with the Unit Shares, the "Underlying Shares") at an exercise price of $0.15 per Warrant Share until March 27, 2026. In consideration for their services in connection with the Offering, a cash commission in the amount of $211,461 is payable to the Agents. The Agents were also issued 2,070,258 compensation options (the "Compensation Options"). Each Compensation Option is exercisable to acquire one unit of the Company (a "Compensation Unit") at the Issue Price for a period of 36 months from March 27, 2023, subject to adjustment in certain events. Each Compensation Unit consists of one share of common stock of the Company and one common stock purchase warrant of the Company (an "Agents' Compensation Warrant") Each Agents' Compensation Warrant entitles the holder thereof to acquire one share of common stock of the Company (an "Agents' Compensation Warrant Share") at a price of C$0.15 per Agents' Compensation Warrant Share until March 27, 2026.

Critical accounting estimates

The preparation of the interim condensed consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities and contingent liabilities at the date of the financial statements and reported amounts of expenses during the reporting period. Estimates and judgments are continuously evaluated and are based on management's experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. Actual outcomes can differ from these estimates. The key sources of estimation uncertainty that have a significant risk of causing material adjustment to the amounts recognized in the financial statements are:

Share-based payments

Management determines costs for share-based payments using market-based valuation techniques. The fair value of the share awards and warrant liabilities are determined at the date of grant using generally accepted valuation techniques and for warrant liabilities at each balance sheets date thereafter. Assumptions are made and judgment used in applying valuation techniques. These assumptions and judgments include estimating the future volatility of the stock price and expected dividend yield. Such judgments and assumptions are inherently uncertain. Changes in these assumptions affect the fair value estimates.

Warrants and accrued liabilities

Estimating the fair value of derivative warrant liability requires determining the most appropriate valuation model, which is dependent on the terms and conditions of the issuance. This estimate also requires determining the most appropriate inputs to the valuation model including the expected life of the warrants and conversion feature derivative liability, volatility and dividend yield and making assumptions about them.

The Company has to make estimates to accrue for certain expenditures due to delay in receipt of third-party vendor invoices. These accruals are made based on trends, history and knowledge of activities. Actual results may be different.

The Company makes monthly estimates of its water treatment costs, with a true-up to the annual invoice received from the IDEQ. Using the actual costs in the annual invoice, the Company will then reassess its estimate for future periods. Given the nature, complexity and variability of the various actual cost items included in the invoice, the Company has used the most recent invoice as its estimate of the water treatment costs for future periods.

Off-Balance Sheet Arrangements

The Company has no off-balance sheet arrangements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Not Applicable.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

TABLE OF CONTENTS

MNP LLP

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Bunker Hill Mining Corp. (formerly Liberty Silver Corp.)

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Bunker Hill Mining Corp. (the Company) as at December 31, 2022 and 2021, and the related consolidated statements of income (loss) and comprehensive income (loss), cash flows, and changes in shareholders' deficiency for each of the years in the two-year period ended December 31, 2022, and the related notes (collectively referred to as the consolidated financial statements).

In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company as at December 31, 2022 and 2021, and the results of its consolidated operations and its consolidated cash flows for each of the years in the two-year period ended December 31, 2022, in conformity with accounting principles generally accepted in the United States of America.

Material Uncertainty Related to Going Concern

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the consolidated financial statements, the Company has suffered an accumulated deficit and recurring losses from operations and does not have sufficient working capital which raises substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty. This matter is also described in the "Critical Audit Matters" section of our report.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Critical Audit Matter Description	Audit Response
Going Concern As described in Note 1 of the consolidated financial statements, the Company has been incurring losses from operations and does not have sufficient working capital needed to meet its current obligations and commitments. In order to continue as a going concern, the Company must seek additional financing. Significant assumptions and judgements on cash flow projections were made by management in estimating future cash flows, which are subject to high degree of uncertainty. Refer to Note 1 Nature and Continuance of Operations and Going Concern. This matter is also described in the "Material Uncertainty Related to Going Concern" section of our report.	We responded to this matter by performing audit procedures in relation to the assessment of the ability of the Company to continue as a going concern. Our audit work in relation to this included, but was not restricted to, the following: ● Evaluated the impact of the Company's existing financial arrangements and conditions in relation to the ability to continue as a going concern. ● Obtained an understanding from management on the Company's future plans on the operations including financing arrangements. ● Evaluated the assumptions and estimates on cashflow projections used in the forecast incorporating information established from our understanding above and any materialized arrangements subsequent to the period end. ● Assessed the appropriateness of the related disclosures.

Valuation of Series 1 & 2 Convertible Debentures and Royalty Convertible Debenture (CDs)

The Company issued various convertible debentures that are complex in nature and are required to be fair valued on issuance and at each reporting period.

The calculation of the fair value of the CDs requires management to use an appropriate valuation model and incorporates estimates.

Due to the complexity of these CDs and the estimates and assumptions involved in the determination of fair value we consider this to be a critical audit matter.

Refer to Note 3 Significant Account Policies – Use of Estimates and Assumptions and Note 8 – Promissory Note Payable and Convertible Debentures

We responded to this matter by performing audit procedures in relation to the accounting and valuation of the CDs. Our audit work in relation to this included, but was not restricted to, the following:

- Obtained and reviewed the agreements for the CDs.
- Obtained management's analysis and assessment of the accounting of the CDs and their calculation of the fair value related to the instruments.
- Assessed the accounting treatment of the CDs to ensure it follows the appropriate accounting guidance.
- Assessed the reasonability of the model used to value the CDs and the appropriateness of the inputs used and recalculated the fair values.
- Performed a sensitivity analysis of the inputs.
- Recalculated the covenants involved to ensure compliance.

MNP LLP

Chartered Professional Accountants

Licensed Public Accountants

We have served as the Company's auditor since 2014.

Mississauga, Canada

April 17, 2023

Bunker Hill Mining Corp.
Consolidated Balance Sheets
(Expressed in United States Dollars)

	December 31, 2022	December 31, 2021
ASSETS		
Current assets		
Cash	$ 708,105	$ 486,063
Restricted cash (note 7)	6,476,000	-
Accounts receivable and prepaid expenses (note 5)	556,947	413,443
Short-term deposit	-	68,939
Prepaid mine deposit and acquisition costs (note 6)	-	2,260,463

Prepaid finance costs	-	393,640
Total current assets	7,741,052	3,622,548
Non-current assets		
Spare parts inventory	341,004	-
Equipment (note 5)	551,204	396,894
Long-term deposit (note 5)	269,015	-
Right-of-use assets (note 6)	-	52,353
Bunker Hill Mine and Mining interests (note 7)	15,896,645	1
Process plant (note 5)	8,130,972	-
Total assets	$ 32,929,892	$ 4,071,796
EQUITY AND LIABILITIES		
Current liabilities		
Accounts payable	$ 4,523,502	$ 1,312,062
Accrued liabilities	1,500,164	869,581
EPA water treatment payable (note 8)	-	5,110,706
Interest payable (notes 8 and 9)	1,154,477	409,242
Derivative warrant liability (note 11)	903,697	-
Deferred share units liability (note 14)	573,742	1,531,409
Promissory notes payable (note 9)	1,500,000	2,500,000
Environment protection agency cost recovery payable (note 8)	-	11,000,000
Current portion of lease liability (note 10)	-	62,277
Total current liabilities	10,155,582	22,795,277
Non-current liabilities		
Loan payable (note 9)	4,684,446	-
Series 1 convertible debenture (note 9)	5,537,360	-
Series 2 convertible debenture (note 9)	14,063,525	-
Royalty convertible debenture (note 9)	10,285,777	-
Environment protection agency cost recovery liability net of discount (note 8)	7,941,466	-
Derivative warrant liability (note 11)	6,438,679	15,518,887
Total liabilities	59,106,835	38,314,164
Shareholders' Deficiency		
Preferred shares, $0.000001 par value, 10,000,000 preferred shares authorized; Nil preferred shares issued and outstanding (note 11)	-	-
Common shares, $0.000001 par value, 1,500,000,000 common shares authorized; 229,501,661 and 164,435,826 common shares issued and outstanding, respectively (note 11)	228	164
Additional paid-in-capital (note 11)	45,161,513	38,248,618
Accumulated other comprehensive income	253,875	-
Accumulated Deficit	(71,592,559)	(72,491,150)
Total shareholders' deficiency	(26,176,943)	(34,242,368)
Total shareholders' deficiency and liabilities	$ 32,929,892	$ 4,071,796

The accompanying notes are an integral part of these consolidated financial statements.

Bunker Hill Mining Corp.

Consolidated Statements of Income (loss) and Comprehensive Income (loss)
(Expressed in United States Dollars)

	Year Ended December 31, 2022	Year Ended December 31, 2021
Operating expenses		
Operation and administration (notes 11, 13 and 14)	$ 2,033,879	$ 2,651,954
Exploration	-	13,530,819
Mine preparation	7,827,656	-
Legal and accounting	1,147,861	1,035,777
Consulting and wages (note 17)	5,477,765	1,533,954
Loss from operations	(16,487,161)	(18,752,504)
Other income or gain (expense or loss)		
Change in derivative liability (note 11)	15,696,391	12,300,453
(loss) gain on foreign exchange	(237,546)	208,660
Loss on fair value of convertible debentures (note 9)	(1,140,537)	-
Gain on EPA debt extinguishment (note 8)	8,614,103	-
Interest expense (notes 8 and 9)	(3,382,559)	(102,740)
Debenture finance costs (note 9)	(1,230,540)	-
Financing costs	(945,507)	-
Other income	18,626	-
Other expense	(6,679)	-
Loss on debt settlement	-	(56,146)
Net income (loss) for the year	$ 898,591	$ (6,402,277)
Other comprehensive income (loss), net of tax		
Gain on change in FV on own credit risk (note 9)	253,875	-
Other comprehensive income (loss)	253,875	-
Comprehensive income (loss)	1,152,466	(6,402,277)
Net Income (loss) per common share		
Net income (loss) per common share – basic (note 12)	$ 0.00	$ (0.04)
Net income (loss) per common share – fully diluted (note 12)	$ 0.00	$ (0.04)
Weighted average number of common shares		
Weighted average common shares – basic (note 12)	205,950,811	161,868,334
Weighted average common shares – fully diluted (note 12)	269,801,281	161,868,334

The accompanying notes are an integral part of these consolidated financial statements.

Bunker Hill Mining Corp.
Consolidated Statements of Cash Flows
(Expressed in United States Dollars)

	Year Ended December 31, 2022	Year Ended December 31, 2021

Operating activities		
Net Income (loss) for the year	$ 898,591	$ (6,402,277)
Adjustments to reconcile net loss to net cash used in operating activities:		
Stock-based compensation	421,881	1,730,308
Depreciation expense	214,643	239,904
Change in derivative liability	(15,696,391)	(12,300,453)
Units issued for services	1,060,858	-
Imputed interest expense on lease liability	1,834	12,696
Interest expense	16,466	-
Financing costs	264,435	-
Foreign exchange loss (gain)	233,059	-
Foreign exchange loss (gain) on re-translation of lease	718	2,165
Loss on debt settlement	-	56,146
Amortization of EPA discount	996,400	-
Loss on fair value of convertible debt derivatives	1,140,537	-
Gain on EPA debt extinguishment	(8,614,103)	-
Changes in operating assets and liabilities:		
Accounts receivable	369,544	(12,598)
Prepaid mine acquisition costs	-	(260,463)
Prepaid finance costs	393,640	(393,640)
Prepaid expenses and deposits	(1,133,124)	(76,112)
Accounts payable	773,102	(128,774)
Accrued liabilities	316,167	787,363
EPA water treatment payable	(4,458,707)	1,974,656
EPA cost recovery payable	(2,000,000)	3,000,000
Interest payable – EPA	(78,710)	-
Interest payable	2,380,853	246,702
Net cash used in operating activities	(22,498,307)	(11,372,153)
Investing activities		
Purchase of spare inventory	(341,004)	-
Land purchase	(202,000)	-
Bunker Hill mine purchase	(5,524,322)	-
Mine improvements	(1,157,059)	-
Purchase and demobilization of Process plant	(3,129,856)	-
Process plant	(503,831)	-
Purchase of machinery and equipment	(316,600)	(94,693)
Net cash used in investing activities	(11,174,672)	(94,693)
Financing activities		
Proceeds from convertible debentures	29,000,000	-
Proceeds from bridge loan	4,668,000	-
Proceeds from issuance of shares, net of issue costs	7,767,849	6,013,439
Proceeds from promissory note	-	2,500,000
Repayment of promissory note	(1,000,000)	-
Lease payments	(64,828)	(129,191)
Net cash provided by financing activities	40,371,021	8,384,248
Net change in cash and restricted cash	6,698,042	(3,082,598)
Cash, beginning of year	486,063	3,568,661
Cash and restricted cash, end of year	$ 7,148,105	$ 486,063
Supplemental disclosures		
Non-cash activities:		
Units issued to settle accounts payable and accrued liabilities	$ 228,421	$ 188,146
Units issued to settle interest payable	1,400,174	-

Mill purchase for shares and warrants		3,243,296		-
Units issued to settle DSU/RSU/Bonuses		872,399		-
Reconciliation from Cash Flow Statement to Balance Sheet:				
Cash and restricted cash, end of year	$	7,148,105	$	486,063
Less restricted cash		6,476,000		-
Cash	$	708,105	$	486,063

The accompanying notes are an integral part of these consolidated financial statements.

Bunker Hill Mining Corp.
Consolidated Statements of Changes in Shareholders' Deficiency
(Expressed in United States Dollars)

	Common stock		Additional paid-in-capital	Accumulated other comprehensive loss	Accumulated deficit	Total
	Shares	Amount				
Balance, December 31, 2021	**164,435,826**	**$ 164**	**$38,248,618**	**$ -**	**$ (72,491,150)**	**$(34,242,368)**
Stock-based compensation	-	-	700,737	-	-	700,737
Compensation options	-	-	264,435	-	-	264,435
Shares issued for interest payable	11,544,279	12	1,400,174	-	-	1,400,174
Shares issued for RSUs vested	2,565,900	2	(2)	-	-	-
Non brokered shares issued for C$0.30	1,471,664	1	352,854	-	-	352,855
Special warrant shares issued for C$0.30	37,849,325	38	9,083,719	-	-	9,083,757
Contractor shares issued for C$0.30	1,218,000	1	289,999	-	-	290,000
Shares issued for Process plant purchase	10,416,667	10	1,970,254	-	-	1,970,264
Issue costs	-	-	(902,427)	-	-	(902,427)
Warrant valuation	-	-	(6,246,848)	-	-	(6,246,848)
Gain on fair value from change in credit risk	-	-	-	253,875	-	253,875
Net income for the period	-	-	-	-	898,591	898,591
Balance, December 31, 2022	**229,501,661**	**$ 228**	**$45,161,513**	**$ 253,875**	**$ (71,592,559)**	**$(26,176,943)**
Balance, December 31, 2020	**143,117,452**	**$ 143**	**$34,551,133**	**$ -**	**$ (66,088,873)**	**$ (31,537,597)**
Stock-based compensation	-	-	1,309,024	-	-	1,309,024
Shares issued at $0.32 per share(ii)	19,576,360	20	6,168,049	-	-	6,168,069
Shares issued for debt settlement at $0.45 per share(iii)	417,720	-	188,146	-	-	188,146
Shares issued for RSUs vested	1,324,294	1	(1)	-	-	-
Issue costs	-	-	(154,630)	-	-	(154,630)
Warrant valuation	-	-	(3,813,103)	-	-	(3,813,103)

(Expressed in United States Dollars)

Net loss for the period	-	-	-	-	(6,402,277)	(6,402,277)
Balance, December 31, 2021	**164,435,826**	**$ 164**	**$38,248,618**	**$ -**	**$ (72,491,150)**	**$(34,242,368)**

(i) Shares issued at C$0.30, converted to US at $0.24 (note 11)
(ii) Units issued at C$0.40, converted to US at $0.32 (note 11)
(iii) Units issued at C$0.57, converted to US at $0.45 (note 11)

The accompanying notes are an integral part of these consolidated financial statements.

1. Nature and continuance of operations and going concern

Bunker Hill Mining Corp. (the “Company”) was incorporated under the laws of the state of Nevada, U.S.A. on February 20, 2007, under the name Lincoln Mining Corp. Pursuant to a Certificate of Amendment dated February 11, 2010, the Company changed its name to Liberty Silver Corp., and on September 29, 2017, the Company changed its name to Bunker Hill Mining Corp. The Company’s registered office is located at 1802 N. Carson Street, Suite 212, Carson City, Nevada 89701, and its head office is located at 82 Richmond Street East, Toronto, Ontario, Canada, M5C 1P1. As of the date of this Form 10-Q, the Company had one subsidiary, Silver Valley Metals Corp. (“Silver Valley”, formerly American Zinc Corp.), an Idaho corporation created to facilitate the work being conducted at the Bunker Hill Mine in Kellogg, Idaho.

The Company was incorporated for the initial purpose of engaging in mineral exploration activities at the Mine. The Company has moved into the development stage concurrent with (i) purchasing the Mine and a process plant, (ii) completing successive technical and economic studies, including a Prefeasibility Study, (iii) delineating mineral reserves, and (iv) conducting the program of activities outlined above.

Going Concern:

These consolidated financial statements have been prepared on a going concern basis. The Company has incurred losses since inception resulting in an accumulated deficit of $71,592,559 and further losses are anticipated in the development of its business. The Company does not have sufficient cash to fund normal operations and meet debt obligations for the next 12 months without deferring payment on certain current liabilities and/or raising additional funds. In order to continue to meet its fiscal obligations in the current fiscal year and beyond, the Company must seek additional financing. This raises substantial doubt about the Company’s ability to continue as a going concern. Its ability to continue as a going concern is dependent upon the ability of the Company to generate profitable operations in the future and/or to obtain the necessary financing to meet its obligations and repay its liabilities arising from normal business operations when they come due. The accompanying consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Management is considering various financing alternatives including, but not limited to, raising capital through the capital markets, debt, and closing on the multi-metals stream transaction (see note 8). These consolidated financial statements do not include any adjustments relating to the recoverability and classification of recorded assets, or the amounts of and classification of liabilities that might be necessary in the event the Company cannot continue in existence.

COVID-19:

The Company's operations could be significantly adversely affected by the effects of a widespread global outbreak of epidemics, pandemics, or other health crises, including the recent outbreak of respiratory illness caused by the novel coronavirus ("COVID-19"). Although the pandemic has subsided significantly, the Company cannot accurately predict the impact a COVID-19 resurgence would have on its operations and the ability of others to meet their obligations with the Company, including uncertainties relating to the ultimate geographic spread of the virus, the severity of the disease, the duration of the outbreak, and the length of travel and quarantine restrictions imposed by governments of affected countries. In addition, a significant outbreak of contagious diseases in the human population could result in a widespread health crisis that could adversely affect the economies and financial markets of many countries, resulting in an economic downturn that could further affect the Company's operations and ability to finance its operations.

The Russia/Ukraine Crisis:

The Company's operations could be adversely affected by the effects of the Russia/Ukraine crisis and the effects of sanctions imposed against Russia or that country's retributions against those sanctions, embargos or further-reaching impacts upon energy prices, food prices and market disruptions. The Company cannot accurately predict the impact the crisis will have on its operations and the ability of contractors to meet their obligations with the Company, including uncertainties relating the severity of its effects, the duration of the conflict, and the length and magnitude of energy bans, embargos and restrictions imposed by governments. In addition, the crisis could adversely affect the economies and financial markets of the United States in general, resulting in an economic downturn that could further affect the Company's operations and ability to finance its operations. Additionally, the Company cannot predict changes in precious metals pricing or changes in commodities pricing which may alternately affect the Company either positively or negatively.

2. Basis of presentation

The consolidated financial statements of the Company have been prepared in accordance with accounting principles generally accepted in the United States of America applicable to exploration stage enterprises. The consolidated financial statements are expressed in U.S. dollars, the Company's functional currency.

3. Significant accounting policies

The following is a summary of significant accounting policies used in the preparation of these consolidated financial statements.

Basis of consolidation

These consolidated financial statements include the assets, liabilities and expenses of the Company and its wholly owned subsidiary, Silver Valley Metals Corp. (formerly American Zinc Corp.). All intercompany transactions and balances have been eliminated on consolidation.

Cash and cash equivalents

Cash and cash equivalents may include highly liquid investments with original maturities of three months or less.

Mineral rights, property and acquisition costs

The Company transitioned from the exploration stage to the development stage at the beginning of the fourth quarter of 2022. The Company has not yet realized any revenues from its planned operations.

The Company capitalizes acquisition and option costs of mineral rights as intangible assets when there is sufficient evidence to support probability of generating positive economic returns in the future. Upon commencement of commercial production, the mineral rights will be amortized using the unit-of-production method over the life of the mineral rights. If the Company does not continue with exploration after the completion of the feasibility study, the mineral rights will be expensed at that time.

The costs of acquiring mining properties are capitalized upon acquisition. Mine development costs incurred to develop and expand the capacity of mines, or to develop mine areas in advance of production, are also capitalized once proven and probable reserves exist and the property is a commercially mineable property. Costs incurred to maintain current exploration or to maintain assets on a standby basis are charged to operations. Costs of abandoned projects are charged to operations upon abandonment. The Company evaluates the carrying value of capitalized mining costs and related property and equipment costs, to determine if these costs are in excess of their recoverable amount whenever events or changes in circumstances indicate that their carrying amounts may not be recoverable. Evaluation of the carrying value of capitalized costs and any related property and equipment costs are based upon expected future cash flows and/or estimated salvage value in accordance with Accounting Standards Codification (FASB ASC) 360-10-35, Impairment or Disposal of Long-Lived Assets.

Equipment

Equipment is stated at cost less accumulated depreciation. Depreciation is provided principally on the straight-line method over the estimated useful lives of the assets, which range from 3 to 10 years. The cost of repairs and maintenance is charged to expense as incurred. Upon sale or other disposition of a depreciable asset, cost and accumulated depreciation are removed from the accounts and any gain or loss is reflected in other income or gain (expense or loss).

The Company periodically evaluates whether events and circumstances have occurred that may warrant revision of the estimated useful lives of equipment or whether the remaining balance of the equipment should be evaluated for possible impairment. If events and circumstances warrant evaluation, the Company uses an estimate of the related undiscounted cash flows over the remaining life of the equipment in measuring their recoverability.

Leases

Operating lease right of use ("ROU") assets represent the right to use the leased asset for the lease term and operating lease liabilities are recognized based on the present value of the future minimum lease payments over the lease term at commencement date. As most leases do not provide an implicit rate, the Company uses an incremental borrowing rate based on the information available at the adoption date in determining the present value of future payments. Lease expense for minimum lease payments is amortized on a straight-line basis over the lease term and is included in operation and administration expenses in the consolidated statements of Income (loss) and comprehensive Income (loss).

The Company is required to make additional payments for certain variable costs. These costs are expensed and included in operation and administration expenses in the consolidated statements of loss and comprehensive loss. Rental income obtained through subleases is recorded as income over the lease term and is offset against operation and administration expenses.

Impairment of long-lived assets

The Company reviews and evaluates long-lived assets for impairment when events or changes in circumstances indicate the related carrying amounts may not be recoverable. The assets are subject to impairment consideration under FASB ASC 360, Property, Plant and Equipment, if events or circumstances indicate that their carrying amount might not be recoverable. When the Company determines that an impairment analysis should be done, the analysis is performed using the rules of FASB ASC 930-360-35, Extractive Activities – Mining, and 360-10-15-3 through 15-5, Impairment or Disposal of Long-Lived Assets.

Various factors could impact the Company's ability to achieve forecasted production schedules. Additionally, commodity prices, capital expenditure requirements and reclamation costs could differ from the assumptions the Company may use in future production cash flow models when compared to factors used to assess impairment. The ability to achieve the estimated quantities of recoverable minerals from development stage mineral interests involves further risks in addition to those factors applicable to mineral interests where proven and probable reserves have been identified, due to the lower level of confidence that the identified mineralized material can ultimately be mined economically.

Fair value of financial instruments

The Company adopted FASB ASC 820-10, Fair Value Measurement. This guidance defines fair value, establishes a three-level valuation hierarchy for disclosures of fair value measurement and enhances disclosure requirements for fair value measures. The three levels are defined as follows:

- Level 1 inputs to the valuation methodology are quoted prices (unadjusted) for identical assets or liabilities in active markets.
- Level 2 inputs to the valuation methodology include quoted prices for similar assets and liabilities in active markets, and inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the financial instrument.
- Level 3 inputs to valuation methodology are unobservable and significant to the fair measurement.

The carrying amounts reported in the consolidated balance sheets for cash, restricted cash, accounts receivable excluding HST, accounts payable, accrued liabilities, interest payable, promissory notes payable, environmental protection agency water treatment payable, environmental protection agency cost recovery payable, and lease liability, all of which qualify as financial instruments, are a reasonable estimate of fair value because of the short period of time between the origination of such instruments and their expected realization and current market rate of interest. The carrying amounts of convertible loans are reported at estimated fair values as a result of the application of fair value models at each quarter end. The Company measured its DSU liability at fair value on recurring basis using level 1 inputs. Derivative warrant liabilities and convertible debentures are measured at fair value on recurring basis using level 3 inputs.

Environmental expenditures

The operations of the Company have been, and may in the future be, affected from time to time, in varying degrees, by changes in environmental regulations, including those for future reclamation and site restoration costs. Both the likelihood of new regulations and their overall effect upon the Company vary greatly and are not predictable. The Company's policy is to meet, or if possible, surpass standards set by relevant legislation, by application of technically proven and economically feasible measures.

Environmental expenditures that relate to ongoing environmental and reclamation programs are expensed as incurred or capitalized and amortized depending on their future economic benefits. Estimated future reclamation and site restoration costs, when the ultimate liability is reasonably determinable, are charged against earnings over the estimated remaining life of the related business operation, net of expected recoveries.

Income taxes

The Company accounts for income taxes in accordance with Accounting Standard Codification 740, Income Taxes ("FASB ASC 740"), on a tax jurisdictional basis. The Company files income tax returns in the United States.

Deferred tax assets and liabilities are recognized for the expected future tax consequences of temporary differences between the tax bases of assets and liabilities and the consolidated financial statements reported amounts using enacted tax rates and laws in effect in the year in which the differences are expected to reverse. A valuation allowance is provided against deferred tax assets when it is determined to be more likely than not that the deferred tax asset will not be realized.

The Company assesses the likelihood of the consolidated financial statements effect of a tax position that should be recognized when it is more likely than not that the position will be sustained upon examination by a taxing authority based on the technical merits of the tax position, circumstances, and information available as of the reporting date. The Company is subject to examination by taxing authorities in jurisdictions such as the United States. Management does not believe that there are any uncertain tax positions that would result in an asset or liability for taxes being recognized in the accompanying consolidated financial statements. The Company recognizes tax-related interest and penalties, if any, as a component of income tax expense.

FSAB ASC 740 prescribes recognition threshold and measurement attributes for the consolidated financial statements recognition and measurement of a tax position taken, or expected to be taken, in a tax return. FASB ASC 740 also provides guidance on de-recognition, classification, interest and penalties, accounting in periods, disclosure and transition. At December 31, 2022, December 31, 2021, the Company has not taken any tax positions that would require disclosure under FASB ASC 740.

Basic and diluted net income (loss) per share

The Company computes net income (loss) per share in accordance with FASB ASC 260, Earnings per Share ("FASB ASC 260"). Under the provisions of FASB ASC 260, basic net income (loss) per share is computed using the weighted average number of common shares outstanding during the period. Diluted net income (loss) per share is computed using the weighted average number of common shares and, if dilutive, potential common shares outstanding during the period. Potential common shares consist of the incremental common shares issuable upon the exercise of stock options, RSU's, warrants and the conversion of convertible loan payable. As of December 31, 2022, 9,005,636 stock options, 162,129,064 warrants, and 5,470,799 broker options were considered in the calculation but not included, as they were anti-dilutive (December 31, 2021 – 9,053,136 stock options, 111,412,712 warrants, and 3,590,907 broker options).

Stock-based compensation

In December 2004, FASB issued FASB ASC 718, Compensation – Stock Compensation ("FASB ASC 718"), which establishes standards for the accounting for transactions in which an entity exchanges its equity instruments for goods or services. It also addresses transactions in which an entity incurs liabilities in exchange for goods or services that are based on the fair value of the entity's equity instruments or that may be settled by the issuance of those equity instruments. FASB ASC 718 focuses primarily on accounting for transactions in which an entity obtains employee services in share-based payment transactions. FASB ASC 718 requires that the compensation cost relating to share-based payment transactions be recognized in the consolidated financial statements. That cost will be measured based on the fair value of the equity or liability instruments issued.

The Company accounts for stock-based compensation arrangements with non-employees in accordance with ASU 505-50, Equity-Based Payments to Non-Employees, which requires that such equity instruments are recorded at the value on the grant date based on fair value of the equity or goods and services whichever is more reliable.

Restricted share units ("RSUs")

The Company estimates the grant date fair value of RSUs using the Company's common shares at the grant date. The Company records the value of the RSUs in paid-in capital.

Deferred share units ("DSUs")

The Company estimates the grant date fair value of the DSUs using the trading price of the Company's common shares on the day of grant. The Company records the value of the DSUs owing to its directors as DSU liability and measures the DSU liability at fair value at each reporting date, with changes in fair value recognized as stock-based compensation in profit (loss).

Use of estimates and assumptions

Many of the amounts included in the consolidated financial statements require management to make judgments and/or estimates. These judgments and estimates are continuously evaluated and are based on management's experience and knowledge of the relevant facts and circumstances. Actual results may differ from the amounts included in the consolidated financial statements.

Areas of significant judgment and estimates affecting the amounts recognized in the consolidated financial statements include:

Going concern

The assessment of the Company's ability to continue as a going concern involves judgment regarding future funding available for its operations and working capital requirements as discussed in note 1.

Accrued liabilities

The Company has to make estimates to accrue for certain expenditures due to delay in receipt of third-party vendor invoices. These accruals are made based on trends, history and knowledge of activities. Actual results may be different. The Company makes monthly estimates of its water treatment costs, with a true-up to the annual invoice received from the Idaho Department of Environmental Quality ("IDEQ"). Using the actual costs in the annual invoice, the Company then reassesses its estimate for future periods. Given the nature, complexity and variability of the various actual cost items included in the invoice, the Company has used the most recent invoice as its estimate of the water treatment costs for future periods.

Convertible loans, promissory notes and warrants

Estimating the fair value of derivative warrant liability requires determining the most appropriate valuation model, which is dependent on the terms and conditions of the issuance. This estimate also requires determining the most appropriate inputs to the valuation model including the expected life of the warrants derivative liability, volatility and dividend yield and making assumptions about them. The assumptions and models used for estimating fair value of warrants derivative liability are disclosed in Notes 9 and 11.

The fair value estimates of the convertible loans use inputs to the valuation model that include risk-free rates, equity value per common share, USD-CAD exchange rates, spot and futures prices of minerals, expected equity volatility, expected volatility in minerals prices, discount for lack of marketability, credit spread, expected mineral production over the life of the mine, and project risk/estimation risk factors. See Note 11 for full disclosures related to the convertible loans and promissory notes.

The fair value estimates may differ from actual fair values and these differences may be significant and could have a material impact on the Company's balance sheets and the consolidated statements of operations. Assets are reviewed for an indication of impairment at each reporting date. This determination requires significant judgment. Factors that could trigger an impairment review include, but are not limited to, significant negative industry or economic trends, interruptions in exploration activities or a significant drop in precious metal prices.

Reclassifications

Certain reclassifications have been made to conform prior year's data to the current presentation. The reclassifications have no effect on the results of reported operations or stockholders' deficit or cash flows.

Concentrations of credit risk

The Company's financial instruments that are exposed to concentrations of credit risk primarily consist of its cash and restricted cash. The Company places its cash with financial institutions of high credit worthiness. At times, its cash equivalents with a particular financial institution may exceed any applicable government insurance limits. The Company's management also routinely assesses the financial strength and credit worthiness of any parties to which it extends funds and as such, it believes that any associated credit risk exposures are limited.

Risks and uncertainties

The Company operates in the mineral resource exploration and mine development industry that is subject to significant risks and uncertainties, including financial, operational, and other risks associated with operating a mineral resource exploration business, including the potential risk of business failure.

Foreign currency transactions

The Company from time to time will receive invoices from service providers that are presenting their invoices using the Canadian dollar. The Company will use its U.S. dollars to settle the Canadian dollar liabilities and any differences resulting from the exchange transaction are reported as gain or loss on foreign exchange.

Convertible loans and promissory notes payable

The Company reviews the terms of its convertible loans and promissory notes payable to determine whether there are embedded derivatives, including the embedded options, that are required to be bifurcated and accounted for as individual derivative financial instruments. In circumstances where the convertible loans or the promissory note contains embedded derivatives that are to be separated from the host contracts, the total proceeds received are first allocated to the fair value of the derivative financial instruments determined using the binomial model. The remaining proceeds, if any, are then allocated to the debenture cost contracts, usually resulting in those instruments being recorded at a discount from their principal amount. This discount is accreted over the expected life of the instruments to profit (loss) using the effective interest method. In circumstances where the convertible loans or the promissory note contains embedded derivatives that are not separated from the host contracts, the fair values of the host contract and the derivative are valued together, with the change in fair value accounted through earnings, profit and loss for each period reported.

(Expressed in United States Dollars)

The debenture host contracts are subsequently recorded at amortized cost at each reporting date, using the effective interest method. The embedded derivatives are subsequently recorded at fair value at each reporting date, with changes in fair value recognized in profit (loss).

The Company applies ASC 480 distinguishing liabilities from equity and ASC 815 derivatives and hedging in determining the appropriate accounting treatment for hybrid instruments. The embedded options within the convertible loans are not bifurcated and measured at fair value at each period end.

Recent Accounting Pronouncements

Accounting Standards Updates Adopted

In *August 2020*, the FASB issued ASU *No. 2020-06* Debt with Conversion and Other Options (Subtopic *470-20*) and Derivatives and Hedging—Contracts in Entity's Own Equity (Subtopic *815-40*): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity. The update is to address issues identified as a result of the complexity associated with applying generally accepted accounting principles for certain financial instruments with characteristics of liabilities and equity. The update is effective for fiscal years beginning after December 15, 2023 for smaller reporting companies, including interim periods within those fiscal years and with early adoption permitted. The Company is assessing the impact from the adoption of this amendment.

Management does not believe that any other recently issued, but not yet effective, accounting standards if currently adopted would have a material effect on the accompanying financial statements.

4. Accounts receivable and prepaid expenses

Accounts receivable and prepaid expenses consists of the following:

	December 31, 2022	December 31, 2021
Prepaid expenses	$ 386,218	$ 413,443
Environment protection agency overpayment (note 8)	170,729	-
Total	$ 556,947	$ 413,443

5. Equipment

Equipment consists of the following:

	December 31,	December 31,

	2022	2021
Equipment	$ 920,571	$ 603,972
	920,571	603,972
Less accumulated depreciation	(369,367)	(207,078)
Equipment, net	$ 551,204	$ 396,894

The total depreciation expense during the year ended December 31, 2022, was $162,290 (year ended December 31, 2021 - $133,526).

Process Plant Purchase from Teck Resources Limited

On May 13, 2022, the Company completed purchase of a comprehensive package of equipment and parts inventory from Teck Resources Limited ("Teck"). The package comprises substantially all processing equipment of value located at the Pend Oreille mine site, including complete crushing, grinding and flotation circuits suitable for a planned ~1,500 ton-per-day operation at the Bunker Hill site, and total inventory of nearly 10,000 components and parts for mill, assay lab, conveyer, field instruments, and electrical spares.

The purchase of the mill has been valued at:

- Cash consideration given, comprised of $500,000 non-refundable deposit remitted on January 7, 2022 and $231,000 sales tax remitted on May 13, 2022, a total of $731,000 cash remitted.
- Value of common shares issued on May 13, 2022 at the market price of that day, a value of $1,970,264.
- Fair value of the warrants issued together with the inputs, as determined by a binomial model, resulted in a fair value of $1,273,032. See note 10.
- As a result, the total value of the mill purchase was determined to be $3,974,296.

The process plant was purchased in an assembled state in the seller's location, and included major processing systems, significant components, and a large inventory of spare parts. The Company has disassembled and transported it to the Bunker Hill site, and will be reassembling it as an integral part of the Company's future operations. The Company determined that the transaction should be accounted for as an asset acquisition, with the process plant representing a single asset, with the exception of the inventory of spare parts, which has been separated out and appears on the balance sheets as a current asset in accordance with a preliminary purchase price allocation. As the plant is demobilized, transported and reassembled, installation and other costs associated with these activities will be captured and capitalized as components of the asset.

At December 31, 2022, the asset consists of the following:

	December 31, 2022
Deposit paid	$ 500,000
Sales tax paid	231,000
Value of shares issued	1,970,264
Value of warrants issued	1,273,032
Total plant & inventory purchased	3,974,296

Site preparation costs		2,296,266
Demobilization		2,201,414
Less spare parts inventory		(341,004)
Pend Oreille plant asset, net	$	8,130,972

Ball Mill upgrade

On August 30, 2022, the Company entered into an agreement to purchase a ball mill from D'Angelo International LLC for $675,000. The purchase of the mill is to be made in three cash payments. The first two payments were made as follows:

$100,000 on September 15, 2022 as a non-refundable long-term deposit
$100,000 on October 13, 2022, as a refundable long-term deposit

As of December 31, 2022, the Company had not made the final payment of $475,000.

6. Right-of-use asset

Right-of-use asset consists of the following:

	December 31, 2022	December 31, 2021
Office lease	$ 319,133	319,133
Less accumulated depreciation	(319,133)	(266,780)
Right-of-use asset, net	$ -	$ 52,353

The total depreciation expense during the year ended December 31, 2022 was $52,353 (year ended December 31, 2021 - $106,378).

7. Mining Interests

Bunker Hill Mine Complex

The Company purchased the Bunker Hill Mine (the "Mine") in January 2022, as described below.

Prior to purchasing the Mine, the Company had entered into a series of agreements with Placer Mining Corporation ("Placer Mining"), the prior owner, for the lease and option to purchase the Mine. The first of these agreements was announced on August 28, 2017, with subsequent amendments and/or extensions announced on November 1, 2019, July 7, 2020, and November 20, 2020.

Under the terms of the November 20, 2020 amended agreement (the "Amended Agreement"), a purchase price of $7,700,000 was agreed, with $5,700,000 payable in cash (with an aggregate of $300,000 to be credited toward the purchase price of the Mine as having been previously paid by the Company) and $2,000,000 in Common Shares of the Company. On November 20, 2020 the Company made an advance payment of $2,000,000, credited towards the purchase price of the Mine, which had the effect of decreasing the remaining amount payable to purchase the Mine to an aggregate of $3,400,000 payable in cash and $2,000,000 in Common Shares of the Company.

(Expressed in United States Dollars)

The Amended Agreement also required payments pursuant to an agreement with the Environmental Protection Agency (the "EPA") whereby for so long as the Company leases, owns and/or occupies the Mine, the Company would make payments to the EPA on behalf of Placer Mining in satisfaction of the EPA's claim for historical water treatment cost recovery in accordance with the Settlement Agreement reached with the EPA in 2018. Immediately prior to the purchase of the Mine, the Company's liability to EPA in this regard totaled $11,000,000. (See also Note 8 Environmental Protection Agency Agreement).

Prior to the completion of the sale, the Company accrued $260,463 in acquisition costs during the year ended December 31, 2021. Together with the $2,000,000 advance payment made in November 2020, this comprises the balance of $2,260,463 for prepaid mine deposit and acquisition costs on the balance sheet as of December 31, 2021.

The Company completed the purchase of the Mine on January 7, 2022. The terms of the purchase price were modified to $5,400,000 in cash, from $3,400,000 of cash and $2,000,000 of Common Shares. Concurrent with the purchase of the Mine, the Company assumed incremental liabilities of $8,000,000 to the EPA, consistent with the terms of the amended Settlement Agreement with the EPA that was executed in December 2021 (see also Note 8 Environmental protection Agency Agreement).

The $5,400,000 contract cash paid at purchase was the $7,700,000 less the $2,000,000 deposit and $300,000 credit given by the seller for prior years' maintenance payments. Management has determined the purchase to be an acquisition of a single asset as guided by ASU 805-10 Business Combinations.

The carrying cost of the Mine is comprised of the following:

		December 31, 2022
Contract purchase price	$	7,700,000
Less: Credit by seller for prior maintenance payments		(300,000)
Net present value of water treatment cost recovery liability assumed (note 8)		6,402,425
Closing costs capitalized		2,638
Mine acquisition costs - legal		442,147
Carrying cost of mine – January 7, 2022	$	14,247,210
Capitalized mining costs – 2022		1,447,435
Carrying cost of mine - total	$	15,694,645

Land Purchase

On March 3, 2022, the Company purchased a 225-acre surface land parcel for $202,000 which includes the surface rights to portions of 24 patented mining claims, for which the Company already owns the mineral rights.

8. Environmental Protection Agency

Historical Cost Recovery Payables

As a part of the lease of the Mine, the Company was required to make payments pursuant to an agreement with the EPA whereby for so long as the Company leases, owns and/or occupies the Mine, the Company was required to make payments to the EPA on behalf of Placer Mining in satisfaction of the EPA's claim for cost recovery related to historical treatment costs paid by the EPA from 1995 to 2017. These payments, if all are made, will total $20,000,000. The agreement called for payments starting with $1,000,000 30 days after a fully ratified agreement was signed (which payment was made) followed by $2,000,000 on November 1, 2018, and $3,000,000 on each of the next five anniversaries with a final $2,000,000 payment on November 1, 2024. The November 1, 2018, November 1, 2019, November 1, 2020, and November 1, 2021, payments were not made. As a result, a total of $11,000,000 was outstanding as of December 31, 2021, accounted for within current liabilities. As the purchase of the Bunker Hill Mine (which would trigger the immediate recognition of the remaining liabilities due through November 1, 2024) had not yet taken place, the remaining $8,000,000 cost recovery liabilities were not recognized on the Company's consolidated balance sheets as of December 31, 2021.

(Expressed in United States Dollars)

Through 2021, the Company engaged in discussions with the EPA to reschedule these payments in ways that enable the sustainable operation of the Mine as a viable long-term business.

Effective December 19, 2021, the Company entered into an amended Settlement Agreement between the Company, Idaho Department of Environmental Quality, US Department of Justice, and the EPA (the "Amended Settlement"). Upon the effectivity of the Amended Settlement, the Company would become fully compliant with its payment obligations to these parties. The Amended Settlement modified the payment schedule and payment terms for recovery of the aforementioned historical environmental response costs. Pursuant to the terms of the Amended Settlement, upon purchase of the Bunker Hill Mine and the satisfaction of financial assurance commitments (as described below), the $19,000,000 of cost recovery liabilities will be paid by the Company to the EPA on the following dates:

Date		Amount
Within 30 days of Settlement Agreement	$	2,000,000
November 1, 2024	$	3,000,000
November 1, 2025	$	3,000,000
November 1, 2026	$	3,000,000
November 1, 2027	$	3,000,000
November 1, 2028	$	3,000,000
November 1, 2029	$	2,000,000 plus accrued interest

In addition to the changes in payment terms and schedule, the Amended Settlement included a commitment by the Company to secure $17,000,000 of financial assurance in the form of performance bonds or letters of credit deemed acceptable to the EPA within 180 days from the effective date of the Amended Settlement. Once put in place, the financial assurance can be drawn on by the EPA in the event of non-performance by the Company of its payment obligations under the Amended Settlement (the "Financial Assurance"). The amount of the bonds will decrease over time as individual payments are made.

The Company completed the purchase of the Mine (see note 7) and made the initial $2,000,000 cost recovery payment on January 7, 2022. Concurrent with the purchase of the Mine, the Company assumed the balance of the EPA liability totaling $17,000,000, an increase of $8,000,000. This was capitalized as $6,402,425 to the carrying value of the Bunker Hill Mine at time of purchase, comprised of $3,000,000 of incremental current liabilities and $5,000,000 of non-current liabilities (discounted to $3,402,425). See note 7.

As of March 31, 2022, the financial assurance had not yet been secured, and as such the Company accounted for the $17,000,000 liabilities according to the previous payment schedule, resulting in $12,000,000 classified as a current liability and $5,000,000 as a long-term liability. The long-term portion was discounted at an interest rate of 16.5% to arrive at a net present value of $3,540,851 after discount ($3,402,425 as of the purchase of the mine plus $138,427 of accretion expense during the quarter ended March 31, 2022.

During the quarter ended June 30, 2022, the Company was successful in obtaining the final financial assurance. Specifically, a $9,999,000 payment bond and a $7,001,000 letter of credit were secured and provided to the EPA. This milestone provides for the Company to recognize the effects of the change in terms of the EPA liability as outlined in the Amendment Settlement. Once the financial assurance was put into place, the restructuring of the payment stream under the Amendment Settlement occurred with the entire $17,000,000 liability being recognized as long-term in nature. The aforementioned payment bond is secured by a $2,475,000 letter of credit. The $2,475,000 and $7,001,000 letters of credit are secured by $9,476,000 of cash deposits under an agreement with a commercial bank. These cash deposits comprise the $9,476,000 of restricted cash shown within current assets as of September 30, 2022.

During the quarter ended December 31, 2022 the $7,001,000 letter of credit was reduced to $2,000,001 as a result of a new $5,000,000 payment bond obtained through an insurance company. The collateral for the new payment bond is comprised of a $2,000,000 letter of credit and land pledged by third parties, with whom the company has entered into a financing cooperation agreement that contemplates a monthly fee of $20,000 (payable in cash or common shares of the Company, at the Company's election). As a result of the $3,000,000 net decrease in the Company's letter of credit requirements, the Company's restricted cash balance (utilized as collateral for letters of credit) decreased by $3,000,000 from $9,476,000 as of September 30, 2022 to $6,476,000 as of December 31, 2022.

Under ASC 470-50, Debt Modifications and Extinguishments, the Company performed a comparison of net present value of the pre-settlement Cost Recovery obligation to the post-settlement schedule of Cost Recovery obligation to determine this was an extinguishment of debt. The Company recorded a gain on extinguishment of debt totaling $8,614,103. The old debt, including any discount, was written off and the new payment stream of the amended $17,000,000 table, including the new discount of $9,927,590, using the effective interest rate of 19.95%, was recorded to result in a net liability of $7,072,410, which is due long-term. During the year ended December 31, 2022, the Company recorded combined discount amortization expense of $712,713 on the discounted pre- and post-extinguishment liability, and interest expense of $156,343 respectively, bringing the net liability to $7,941,466. As at December 31, 2022 interest of $24,587 ($306,501 at December 31, 2021) is included in interest payable on the consolidated balance sheets.

Water Treatment Charges – EPA

Separate to the cost recovery liabilities outlined above, the Company is responsible for the payment of ongoing water treatment charges. Water treatment charges incurred through December 31, 2021 were payable to the EPA, and charges thereafter are payable to the Idaho Department of Environmental Quality ("IDEQ") given a handover of responsibilities for the Central Treatment Plant from the EPA to the IDEQ as of that date. The Company had estimated water treatment payables to the EPA of $nil as of December 31, 2022 and $5,110,706 at December 31, 2021, which is reflected in current liabilities.

Water Treatment Charges – IDEQ

For the year ended December 31, 2022, the Company made net payments of $1,400,000 (12 monthly payments of $140,000 less $280,000 refund received in December 2022) to the IDEQ to estimate the cost of treating water at the Central Treatment Plant. As of December 31, 2022, a prepaid expense of $170,729 represents the difference between the actual cost of water treatment through December 31, 2022 and net payments made by the Company to the IDEQ. This balance has been recognized on the consolidated balance sheets as accounts receivable and prepaid expenses.

9. Promissory notes payable and Convertible Debentures

On September 22, 2021, the Company issued a non-convertible promissory note in the amount of $2,500,000 bearing interest of 15% per annum and payable at maturity. The promissory note was scheduled to mature on March 15, 2022;

however, the note holder agreed to accept $500,000 payment, which the Company paid, by April 15, 2022, and the remaining principal and interest was deferred to June 20, 2022. Prior to the revised maturity of June 20, 2022, the note holder agreed to accept a further $500,000 payment by June 30, 2022, which the Company paid. The remaining principal and interest has been deferred to June 15, 2023. The Company purchased a land parcel for approximately $202,000 on March 3, 2022, which may be used as security for the promissory note. At December 31, 2022, the Company owes $1,500,000 in promissory notes payable, which is included in current liabilities on the consolidated balance sheets. Interest expense for the years ended December 31, 2022 and 2021 was $281,301 and $102,740 respectively. At December 31, 2022 interest of $384,041 ($102,740 at December 31, 2021) is included in interest payable on the consolidated balance sheets.

Project Finance Package with Sprott Private Resource Streaming & Royalty Corp.

On December 20, 2021, the Company executed a non-binding term sheet outlining a $50,000,000 project finance package with Sprott Private Resource Streaming and Royalty Corp. ("SRSR").

The non-binding term sheet with SRSR outlined a $50,000,000 project financing package that the Company expects to fulfill the majority of its funding requirements to restart the Mine. The term sheet consisted of an $8,000,000 royalty convertible debenture (the "RCD"), a $5,000,000 convertible debenture (the "CD1"), and a multi-metals stream of up to $37,000,000 (the "Stream"). The CD1 was subsequently increased to $6,000,000, increasing the project financing package to $51,000,000.

On June 17, 2022, the Company consummated a new $15,000,000 convertible debenture (the "CD2"). As a result, total potential funding from SRSR was further increased to $66,000,000 including the RCD, CD1, CD2 and the Stream (together, the "Project Financing Package").

$8,000,000 Royalty Convertible Debenture (RCD)

The Company closed the $8,000,000 RCD on January 7, 2022. The RCD bears interest at an annual rate of 9.0%, payable in cash or Common Shares at the Company's option, until such time that SRSR elects to convert a royalty, with such conversion option expiring at the earlier of advancement of the Stream or July 7, 2023 (subsequently amended as described below). In the event of conversion, the RCD will cease to exist and the Company will grant a royalty for 1.85% of life-of-mine gross revenue from mining claims considered to be historically worked, contiguous to current accessible underground development, and covered by the Company's 2021 ground geophysical survey (the "SRSR Royalty"). A 1.35% rate will apply to claims outside of these areas. The RCD was initially secured by a share pledge of the Company's operating subsidiary, Silver Valley, until a full security package was put in place concurrent with the consummation of the CD1. In the event of non-conversion, the principal of the RCD will be repayable in cash.

Concurrent with the funding of the CD2 in June 2022, the Company and SRSR agreed to a number of amendments to the terms of the RCD, including an amendment of the maturity date from July 7, 2023 to March 31, 2025. The parties also agreed to enter into a Royalty Put Option such that in the event the RCD is converted into a royalty as described above, the holder of the royalty will be entitled to resell the royalty to the Company for $8,000,000 upon default under the CD1 or CD2 until such time that the CD1 and CD2 are paid in full. The Company determined that the amendments in the terms of the RCD should not be treated as an extinguishment of the RCD, and have therefore been accounted for as a modification as a result of the treatment the Company reported a gain of $607,261 in the loss on fair value of convertible debentures line of the consolidated statements of income (loss) and comprehensive income (loss) for the year ended December 31, 2022.

$6,000,000 Series 1 Convertible Debenture (CD1))

The Company closed the $6,000,000 CD1 on January 28, 2022, which was increased from the previously-announced $5,000,000. The CD1 bears interest at an annual rate of 7.5%, payable in cash or shares at the Company's option, and matures on July 7, 2023 (subsequently amended, as described below). The CD1 is secured by a pledge of the Company's properties and assets. Until the closing of the Stream, the CD1 was to be convertible into Common Shares at a price of C$0.30 per Common Share, subject to stock exchange approval (subsequently amended, as described below). Alternatively, SRSR may elect to retire the CD1 with the cash proceeds from the Stream. The Company may elect to repay the CD1 early; if SRSR elects not to exercise its conversion option at such time, a minimum of 12 months of interest would apply.

Concurrent with the funding of the CD2 in June 2022, the Company and SRSR agreed to a number of amendments to the terms of the CD1, including that the maturity date would be amended from July 7, 2023 to March 31, 2025, and that the CD1 would remain outstanding until the new maturity date regardless of whether the Stream is advanced, unless the Company elects to exercise its option of early repayment. The Company determined that the amendments in the terms of the CD1 should not be treated as an extinguishment of the CD1, and have therefore been accounted for as a modification as a result of the treatment the Company reported a gain of $179,046 in the loss on fair value of convertible debentures line of the statement of operations for the year ended December 31, 2022.

$15,000,000 Series 2 Convertible Debenture (CD2)

The Company closed the $15,000,000 CD2 on June 17, 2022. The CD2 bears interest at an annual rate of 10.5%, payable in cash or shares at the Company's option, and matures on March 31, 2025. The CD2 is secured by a pledge of the Company's properties and assets. The repayment terms include 3 quarterly payments of $2,000,000 each beginning June 30, 2024 and $9,000,000 on the maturity date.

In light of the Series 2 Convertible Debenture financing, the previously permitted additional senior secured indebtedness of up to $15 million for project finance has been removed.

The Company determined that in accordance with ASC 815 Derivatives and Hedging, each debenture will be valued and carried as a single instrument, with the periodic changes to fair value accounted through earnings, profit and loss.

Consistent with the approach above, the following table summarizes the key valuation inputs as at applicable valuation dates:

Reference (2)(4) (5)	Valuation date	Maturity date	Contractual Interest rate	Stock price (US$)	Expected equity volatility	Credit spread	Risk-free rate	Risk-adjusted rate
CD1 note (1)	01-28-22	07-07-23	7.50%	0.230	120%	8.70%	0.92%	16.18%
RCD note	01-07-22	07-07-23	9.00%	0.242	130%	9.21%	0.65%	16.39%
CD1 note (1)	03-31-22	07-07-23	7.50%	0.235	120%	8.85%	1.80%	17.12%
RCD note	03-31-22	07-07-23	9.00%	0.235	120%	8.85%	1.80%	17.12%
CD2 note(1)	06-17-22	03-31-25	10.50%	0.185	120%	9.45%	3.28%	20.95%
CD2 note(1)	06-30-22	03-31-25	10.50%	0.150	120%	10.71%	2.95%	21.78%
CD1 note	06-30-22	03-31-25	7.50%	0.150	120%	10.71%	2.95%	19.89%
RCD note	06-30-22	03-31-25	9.00%	0.150	120%	10.71%	2.95%	19.89%
CD1 note	09-30-22	03-31-25	7.50%	0.085	120%	13.31%	4.19%	23.35%
RCD note	09-30-22	03-31-25	9.00%	0.085	120%	13.31%	4.19%	23.35%
CD2 note	09-30-22	03-31-25	10.50%	0.085	120%	13.31%	4.19%	25.21%
CD1 note(3)	12-31-22	03-31-25	7.50%	0.125	120%	7.08%	4.32%	17.85%
RCD note	12-31-22	03-31-25	9.00%	0.125	120%	7.08%	4.32%	17.85%
CD2 note(3)	12-31-22	03-31-25	10.50%	0.125	120%	7.08%	4.32%	19.76%

(1) The CD1 carried a Discount for Lack of Marketability ("DLOM") of 5.0% as of the issuance date and as of March 31, 2022. The CD2 carried a DLOM of 10.0% as of the issuance date and June 30, 2022

(Expressed in United States Dollars)

(2) CD1 and RCD carry an instrument-specific spread of 7.23%, CD2 carries an instrument-specific spread of 9.32%
(3) The conversion price of the CD1 is $0.219 and CD2 is $0.212 as of December 31, 2022
(4) A project risk rate of 13.0% was used for all scenarios of the RCD fair value computations
(5) The valuation of the RCD is driven by the aggregation of (i) the present value of future potential cash flow to the royalty holder, in the event that the RCD is converted to a royalty, utilizing an estimate of future metal sales and Monte Carlo simulations of future metal prices, and (ii) the computation of the present value assuming no conversion to the 1.85% gross revenue royalty. The valuation of (i) is compared to the valuation of (ii) for each simulation, with the higher value used in the aggregation to arrive at the fair value of the RCD. This results in an implied probability of the RCD being converted to the royalty, in the event that the Stream is advanced. Based on this methodology, as of December 31. 2022, the implied probability of the RCD being converted to a 1.85% royalty, in the event that the Stream is advanced, was 98%. Credit spread, Risk-free rate, and Risk-adjusted rate shown for the RCD are applicable to the scenario where the Stream is not advanced. There are immaterial differences in these inputs for the scenario where the Stream is advanced. As of December 31, 2022 these were 6.71%, 4.36%, and 17.55% respectively for the Scenario where the Stream is advanced

The resulting fair values of the CD1, RCD, and CD2 at the issuance dates, and as of December 31, 2022, were as follows:

Instrument Description	Issuance date CD1 RCD, CD2	December 31, 2022
CD1	$ 6,320,807	$ 5,537,360
RCD	7,679,193	10,285,777
CD2	15,000,000	14,063,525
Total	$ 29,000,000	$ 29,886,662

The total loss on fair value of debentures recognized during the year ended December 31, 2022 and December 31, 2021, was $1,140,537 and $nil, respectively. The portion of changes in fair value that is attributable to changes in the Company's credit risk is accounted for within other comprehensive income. During the year ended December 31, 2022 and December 31, 2021, the Company recognized $253,875 and $nil respectively, within other comprehensive income. Interest expense for the years ended December 31, 2022 and 2021 was $2,092,065 and $nil respectively. At December 31, 2022 interest of $691,890 ($nil at December 31, 2021) is included in interest payable on the consolidated balance sheets.

The Company performs quarterly testing of the covenants in the RCD, CD1 and CD2, and was in compliance with all such covenants as of December 31, 2022.

The Loan Facility

On December 6, 2022, the Company closed a new $5,000,000 loan facility with Sprott (the "Bridge Loan"). The Bridge Loan is secured by the same security package that is in place with respect to the RCD, CD1, and CD2. The Bridge Loan bears interest at a rate of 10.5% per annum and matures at the earlier of (i) the advance of the Stream, or (ii) June 30, 2024. In addition, the minimum quantity of metal delivered under the Stream, if advanced, would increase by 5% relative to amounts previously announced. Interest expense for the years ended December 31, 2022 and 2021 was $70,404 and $nil respectively. At December 31, 2022 interest of $53,985 ($nil at December 31, 2021) is included in interest payable on the consolidated balance sheets.

(Expressed in United States Dollars)

The Stream

A minimum of $27,000,000 and a maximum of $37,000,000 (the "Stream Amount") will be made available under the Stream, at the Company's option, once the conditions of availability of the Stream have been satisfied, including confirmation of full project funding by an independent engineer appointed by SRSR. If the Company draws the maximum funding of $37,000,000, the Stream would apply to 10% of payable metals sold until a minimum quantity of metal is delivered consisting of, individually, 55 million pounds of zinc, 35 million pounds of lead, and 1 million ounces of silver (subsequently amended, as described below). Thereafter, the Stream would apply to 2% of payable metals sold. If the Company elects to draw less than $37,000,000 under the Stream, the percentage and quantities of payable metals streamed will adjust pro-rata. The delivery price of streamed metals will be 20% of the applicable spot price. The Company may buy back 50% of the Stream Amount at a 1.40x multiple of the Stream Amount between the second and third anniversary of the date of funding, and at a 1.65x multiple of the Stream Amount between the third and fourth anniversary of the date of funding. As of December 31, 2022, the Stream had not been advanced.

Concurrent with the funding of the CD2 in June 2022, the Company and SRSR agreed that the minimum quantity of metal delivered under the Stream, if advanced, will increase by 10% relative to the amounts noted above.

Other Interest

During the year ended December 31, 2022 and December the Company recognized $72,304 and $nil respectively of other interest expense.

10. Lease liability

The Company had an operating lease for office space that expired in 2022. Below is a summary of the Company's lease liability as of December 31, 2022:

		Office lease
Balance, December 31, 2020	$	176,607
Addition		-
Interest expense		12,696
Lease payments		(129,191)
Foreign exchange loss		2,165
Balance, December 31, 2021		62,277
Addition		-
Interest expense		1,834
Lease payments		(64,828)
Foreign exchange loss		717
Balance, December 31, 2022		-

11. Capital stock, warrants and stock options

Authorized

The total authorized capital is as follows:

- 1,500,000,000 common shares, with a par value of $0.000001 per common share; and
- 10,000,000 preferred shares with a par value of $0.000001 per preferred share

Issued and outstanding

In February 2021, the Company closed a non-brokered private placement of units of the Company (the "February 2021 Offering"), issuing 19,576,360 units of the Company ("February 2021 Units") at C$0.40 per February 2021 Unit for gross proceeds of $6,168,069 (C$7,830,544). Each February 2021 Unit consisted of one common share of the Company and one common share purchase warrant of the Company (each, "February 2021 Warrant"), which entitles the holder to acquire a common share of the Company at C$0.60 per common share for a period of five years. In connection with the February 2021 Offering, the Company incurred share issuance costs of $154,630 and issued 351,000 compensation options (the "February 2021 Compensation Options"). Each February 2021 Compensation Option is exercisable into one February 2021 Unit at an exercise price of C$0.40 for a period of three years.

The Company also issued 417,720 February 2021 Units to settle $132,000 of accrued liabilities at a deemed price of $0.45 based on the fair value of the units issued. As a result, the Company recorded a loss on debt settlement of $56,146.

In April 2022, the Company closed a private placement of 37,849,325 Special Warrants and a non-brokered private placement of 1,471,664 units of the Company for aggregate gross proceeds of approximately $9,384,622 (C$11,796,297). Related parties, including management, directors, and consultants, participated in the Special Warrant private placement for a total of 4,809,160 shares (included in the total above).

The Special Warrants were issued at a price of C$0.30 per special warrant. Each Special Warrant shall be automatically exercisable (without payment of any further consideration and subject to customary anti-dilution adjustments) into one unit of the Company (a "Brokered Unit") on the date that is the earlier of: (i) the date that is three (3) business days following the date on which the Company has obtained both (A) a receipt from the Canadian security commission in each of the each of the provinces of Canada which the purchasers and Agents (as defined herein) are residents where the Special Warrants are sold (the "Qualifying Jurisdictions") for a (final) short-form prospectus qualifying the distribution of the common stock of the Company ("Common Shares") and common stock purchase warrants of the Company (the "Warrants") issuable upon exercise of the Special Warrants (the "Qualification Prospectus"); and (B) notification that the registration statement, under U.S. securities laws, of the Company filed with the United States Securities and Exchange Commission (the "SEC") has been declared effective by the SEC (the "Registration Statement"); and (ii) the date that is six months following April 1, 2022 (the "Closing Date"). Each unit consists of one common share and one warrant. Each warrant entitles the holder to acquire one common share for C$0.37 until April 1, 2025. The warrants shall also be exercisable on a cashless basis in the event the Registration Statement has not been made effective by the SEC prior to the date of exercise.

On May 31, 2022, the Company announced that it had received a receipt from the Ontario Securities Commission for its final short-form Canadian prospectus qualifying the distribution of the common stock of the Company and common stock purchase warrants of the Company issuable upon exercise of the special warrants of the Company that were issued on April 1, 2022. The Company also announced that it received notice from the United States Securities and Exchange Commission that its Form S-1 has been declared effective as of May 27, 2022. As a result of obtaining the receipt for the Canadian prospectus and the declaration of effectiveness for the Form S-1, each unexercised Special Warrant was automatically exercised into one Common Share and one Warrant without further action on the part of the holders.

The non-brokered 1,471,664 units were issued at a price of C$0.30 per unit. Each unit consists of one common share and one warrant. Each warrant entitles the holder to acquire one warrant share for C$0.37 until April 1, 2025.

In connection with the special warrants offering, the agents earned a cash commission in the amount of C$563,968 and compensation options exercisable to acquire an aggregate of 1,879,892 units of the Company at C$0.30 a unit until April 1, 2024. Each compensation unit consists of one common share and one warrant. Each warrant entitles the holder to acquire one warrant share for C$0.37 until April 1, 2024.

In April 2022, the Company issued 1,315,856 common shares in connection with its election to satisfy interest payments under the outstanding convertible debentures for the three months ended March 31, 2022.

In April 2022, the Company issued 768,750 shares in connection with the settlement of RSU's.

In May 2022, the Company issued 10,416,667 units to Teck Resources Limited in consideration towards the purchase of the Pend Oreille Processing Plant at C$0.245 per unit. Each unit consists of one common share and one warrant. Each warrant entitles the holder to acquire one warrant share for C$0.37 until May 13, 2025.

In June 2022, the Company issued 1,218,000 units to contractors for bonuses during the three months ended March 31, 2022. Each unit consists of one common share and one warrant. Each warrant entitles the holder to acquire one warrant share for C$0.37 until April 1, 2025.

In June 2022, the Company issued 165,000 shares in connection with the settlement of RSU's.

In July 2022, the Company issued 1,975,482 common shares in connection with its election to satisfy interest payments under the outstanding convertible debentures for the three months ended June 30, 2022.

In September 2022, the Company issued 33,000 common shares in connection with the settlement of RSU's.

In October 2022, the Company issued 8,252,940 common shares in connection with its election to satisfy interest payments under the outstanding convertible debentures for the three months ended September 30, 2022.

In November 2022, the Company issued 1,599,150 common shares in connection with settlement of RSU's.

For each financing, the Company has accounted for the warrants in accordance with ASC Topic 815 Derivatives and Hedging. The warrants are considered derivative instruments as they were issued in a currency other than the Company's functional currency of the U.S. dollar. The estimated fair value of warrants accounted for as liabilities was determined on the date of issue and marks to market at each financial reporting period. The change in fair value of the warrant is recorded in the consolidated statement of operations and comprehensive loss as a gain or loss in the change in derivative liability line item and is estimated using the Binomial model.

The fair value of the warrant liabilities related to the various tranches of warrants issued during the period were estimated using the Binomial model to determine the fair value using the following assumptions on the day of issuance and as at December 31, 2022 and December 31, 2021:

April 2022 special warrants issuance		December 31, 2022		April 1, 2022
Expected life		822 days		1,096 days
Volatility		120%		120%
Risk free interest rate		4.06%		2.35%
Dividend yield		0%		0%
Share price (C$)	$	0.17	$	0.29
Fair value	$	2,406,104	$	5,947,232
Change in derivative liability	$	(3,541,128)	$	-

April 2022 non-brokered issuance		December 31, 2022		April 1, 2022
Expected life		822 days		1,096 days
Volatility		120%		120%
Risk free interest rate		4.06%		2.35%
Dividend yield		0%		0%
Share price (C$)	$	0.17	$	0.29
Fair value	$	93,553	$	186,190
Change in derivative liability	$	(92,637)	$	-

May 2022 Teck issuance		December 31, 2022		May 13, 2022
Expected life		864 days		1,096 days
Volatility		120%		120%
Risk free interest rate		4.06%		2.68%
Dividend yield		0%		0%
Share price (C$)	$	0.17	$	0.25
Fair value	$	684,497	$	1,273,032
Change in derivative liability	$	(588,535)	$	-

June 2022 issuance		December 31, 2022		June 30, 2022
Expected life		822 days		1,006 days
Volatility		120%		120%
Risk free interest rate		3.72%		3.14%
Dividend yield		0%		0%
Share price (C$)	$	0.17	$	0.20
Fair value	$	77,429	$	113,425
Change in derivative liability	$	(35,996)	$	-

February 2021 issuance		December 31, 2022		December 31, 2021
Expected life		1,136 days		1,501 days
Volatility		120%		100%
Risk free interest rate		3.72%		1.25%
Dividend yield		0%		0%
Share price	$	0.17	$	0.37
Fair value	$	1,335,990	$	3,483,745
Change in derivative liability	$	(2,147,756)	$	-

The warrant liabilities as a result of the August 2018, November 2018, June 2019, August 2019, and August 2020 private placements were revalued as at December 31, 2022 and December 31, 2021 using the Binomial model and the following assumptions:

(Expressed in United States Dollars)

August 2020 issuance	December 31, 2022		December 31, 2021	
Expected life		243 days		608 days
Volatility		120%		100%
Risk free interest rate		4.06%		0.95%
Dividend yield		0%		0%
Share price	$	0.17	$	0.37
Fair value	$	903,697	$	6,790,163
Change in derivative liability	$	(5,886,466)	$	-

June 2019 issuance (i)	December 31, 2022		December 31, 2021	
Expected life		1,096 days		1,461 days
Volatility		120%		100%
Risk free interest rate		3.82%		1.02%
Dividend yield		0%		0%
Share price	$	0.17	$	0.37
Fair value	$	725,737	$	2,067,493
Change in derivative liability	$	(1,341,756)	$	-

(i) During the six months ended December 31, 2020, the Company amended the exercise price to C$0.59 per common share and extended the expiry date to December 31, 2025 for 11,660,000 warrants.

August 2019 issuance (ii)	December 31, 2022		December 31, 2021	
Expected life		1,096 days		1,461 days
Volatility		120%		100%
Risk free interest rate		3.82%		1.02%
Dividend yield		0%		0%
Share price	$	0.17	$	0.37
Fair value	$	1,115,369	$	3,177,485
Change in derivative liability	$	(2,062,116)	$	-

(ii) During the six months ended December 31, 2020, the Company amended the exercise price to C$0.59 per common share and extended the expiry date to December 31, 2025, for 17,920,000 warrants. The terms of the remaining 2,752,900 warrants remain unchanged.

Warrants

	Number of warrants	Weighted average exercise price (C$)		Weighted average grant date value ($)	
Balance, December 31, 2020	95,777,806	$	0.54	$	0.18

(Expressed in United States Dollars)

Issued	19,994,080	0.60	0.19
Expired	(4,359,174)	0.59	0.19
Balance, December 31, 2021	111,412,712	$ 0.54	$ 0.18
Issued	50,955,636	0.37	0.15
Expired	(239,284)	0.70	0.21
Balance, December 31, 2022	162,129,064	$ 0.49	$ 0.17

During the year ended December 31, 2022, 239,284 February 2020 broker warrants expired.

At December 31, 2022, the following warrants were outstanding:

Expiry date	Exercise price (C$)	Number of warrants	Number of warrants exercisable
August 31, 2023	0.50	58,284,148	58,284,148
December 31, 2025	0.59	32,895,200	32,895,200
February 9, 2026	0.60	17,112,500	17,112,500
February 16, 2026	0.60	2,881,580	2,881,580
April 1, 2025	0.37	40,538,969	40,538,969
May 13, 2025	0.37	10,416,667	10,416,667
		162,129,064	162,129,064

Compensation options

At December 31, 2022, the following compensation options were outstanding:

	Number of broker options	Weighted average exercise price (C$)
Issued - August 2020 Compensation Options	3,239,907	$ 0.35
Balance, December 31, 2020	3,239,907	$ 0.35
Issued – February 2021 Compensation Options	351,000	0.40
Balance, December 31, 2021	3,590,907	0.35
Issued – April 2022 Compensation Options	1,879,892	0.30
Balance, December 31, 2022	5,470,799	$ 0.34

Grant Date	Risk free interest rate	Dividend yield	Volatility	Stock price	Weighted average life
August 2020	0.31%	0%	100%	C$0.35	3 years
February 2021	0.26%	0%	100%	C$0.40	3 years
April 1, 2022	2.34%	0%	120%	C$0.30	2 years

(Expressed in United States Dollars)

Expiry date		Exercise price (C$)	Number of broker options		Fair value ($)
August 31, 2023 [(i)]	$	0.35	3,239,907	$	521,993
February 16, 2024 [(ii)]	$	0.40	351,000	$	68,078
April 1, 2024 [(iii)]	$	0.30	1,879,892	$	264,435
			5,470,799	$	854,506

(i)Exercisable into one August 2020 Unit

(ii)Exercisable into one February 2021 Unit

(iii)Exercisable into one April 2022 Unit

Stock options

The following table summarizes the stock option activity during the years ended December 31, 2022 and 2021:

	Number of stock options		Weighted average exercise price (C$)
Balance, December 31, 2020	8,015,159	$	0.62
Granted (i)	1,037,977		0.34
Balance, December 31, 2021	9,053,136	$	0.58
Granted (ii)	700,000		0.15
Expired May 1, 2022	(47,500)		10.00
Forfeited November 25, 2022	(150,000)		0.15
Expired December 31, 2022	(235,500)		0.50
Balance, December 31, 2022	9,320,636	$	0.51

(i) On February 19, 2021, 1,037,977 stock options were issued to an officer of the Company, of which 273,271 stock options vested immediately and the balance of 764,706 stock options vested on December 31, 2021. These options have a 5-year life and are exercisable at C$0.335 per common share. The grant date fair value of the options was estimated at $204,213. The vesting of these options resulted in stock-based compensation of $nil for the year ended December 31, 2022 ($204,213 for the year ended December 31, 2021) which is included in operation and administration expenses on the consolidated statements of income (loss) and comprehensive income (loss).

(ii) On August 24, 2022, 300,000 stock options were issued to an employee of the Company, of which 150,000 vested immediately and the remaining balance of outstanding options to vest equally over the next two anniversaries of the grant date. These options have a 5-year life and are exercisable at C$0.15 per common share. The grant fair value of the options was estimated at $28,930. The vesting of these options resulted in stock-based compensation of $15,594 for the year ended December 31, 2022, which is included in the operation and administration expense of the consolidated statements of income (loss) and comprehensive income (loss).

(Expressed in United States Dollars)

(iii) On November 23, 2022, 400,000 stock options were issued to an employee of the Company, of which 200,000 vested immediately and the remaining balance of outstanding options to vest equally over the next two anniversaries of the grant date. These options have a 5-year life and are exercisable at C$0.15 per common share. The grant fair value of the options was estimated at $37,387. The vesting of these options resulted in stock-based compensation of $20,191 for the year ended December 31, 2022, which is included in the operation and administration expense of the consolidated statements of income (loss) and comprehensive income (loss).

The fair value of these stock options was determined on the date of grant using the Black-Scholes valuation model, and using the following underlying assumptions:

	Risk free interest rate	Dividend yield	Volatility	Stock price	Weighted average life
(i)	0.64%	0%	100%	C$0.34	5 years
(ii)	3.27%	0%	120%	C$0.15	5 years
(iii)	3.22%	0%	120%	C$0.15	5 years

The following table reflects the actual stock options issued and outstanding as of December 31, 2022:

Exercise price (C$)	**remaining contractual life (years)**	**Number of options outstanding**	**Number of options vested (exercisable)**	**Grant date fair value ($)**
0.60	0.75	200,000	200,000	52,909
0.60	1.82	1,575,000	1,575,000	435,069
0.55	2.30	5,957,659	2,978,830	1,536,764
0.335	3.14	1,037,977	1,037,977	204,213
0.15	0.90	150,000	150,000	14,465
0.15	4.90	400,000	200,000	37,387
		9,320,636	6,141,807	$ 2,280,807

12. Income per Share

Potentially dilutive securities include convertible loan payable, warrants, broker options, stock options, and unvested restricted share units ("RSU"). Diluted income per share reflects the assumed exercise or conversion of all dilutive securities using the treasury stock method.

	Year ended December 31, 2022	**Year ended December 31, 2021**

Net income (loss) for the period	898,591	(6,402,277)
Basic income (loss) per share Weighted average number of common shares - basic	205,950,811	161,868,334
Net income (loss) per share – basic	0.00	(0.04)
Net income (loss) for the period	898,591	(6,402,277)
Dilutive effect of convertible debentures	(370,121)	-
Dilutive effect of warrants on net income	-	-
Diluted net income (loss) for the period	528,470	(6,402,277)
Diluted income (loss) per share	205,950,811	161,868,334
Weighted average number of common shares - basic		
Diluted effect:		
Stock options and RSUs	63,850,470	-
Weighted average number of common shares - fully diluted	269,801,281	161,868,334
Net income (loss) per share - fully diluted	0.00	(0.04)

13. Restricted share units

Effective March 25, 2020, the Board of Directors approved a Restricted Share Unit ("RSU") Plan to grant RSUs to its officers, directors, key employees and consultants.

The following table summarizes the RSU activity during the year ended December 31, 2022:

	Number of shares	**Weighted average grant date fair value per share (C$)**
Unvested as at December 31, 2020	988,990	$ 0.39
Granted	1,348,434	0.38
Vested	(1,516,299)	0.41
Forfeited	(245,125)	0.52
Unvested as at December 31, 2021	576,000	$ 0.62
Granted	6,620,641	0.17
Vested	(2,373,900)	0.18
Unvested as at December 31, 2022	4,822,741	$ 0.22

(i) On January 1, 2021, the Company granted 735,383 RSUs to a consultant of the Company. 245,128 RSUs vested immediately with the remaining RSUs vesting in one twelfth increments per month. During the year ended 2021, a total of 490,258 RSUs vested, and in July 2021, the consultant forfeited the remaining 245,125 unvested RSUs, resulting in a reversal of share-based compensation of $64,870. The vesting of these RSUs resulted in stock-based compensation of $nil for the year ended December 31, 2022 and $199,542 for the year ended December 31, 2021, which is included in operation and administration expenses on the consolidated statements of loss and comprehensive loss.

(ii) On July 1, 2021, the Company granted 17,823 RSUs to a consultant of the Company, vested immediately. The vesting of these RSUs resulted in stock-based compensation of $nil for the year ended December 31, 2022 and $4,026 for the year ended December 31, 2021, which is included in operation and administration expenses on the consolidated statements of loss and comprehensive loss.

(iii) On August 5, 2021, the Company granted 595,228 RSUs to consultants of the Company, vested immediately. The vesting of these RSUs resulted in stock-based compensation of $nil for the year ended December 31, 2022 and $100,022 for the year ended December 31, 2021, which is included in operation and administration expenses on the consolidated statements of loss and comprehensive loss.

(iv) On January 10, 2022, the Company granted 500,000 RSUs to a consultant of the Company, vested immediately. The vesting of these RSUs resulted in stock-based compensation of $122,249 for the year ended December 31, 2022, which is included in operation and administration expenses on the consolidated statements of income (loss) and comprehensive income (loss).

(v) On April 29, 2022, the Company granted 76,750 RSUs to certain consultants of the Company, vested immediately. The vesting of these RSUs resulted in stock-based compensation of $16,800 for the year ended December, 2022, which is included in operation and administration expenses on the consolidated statements of income (loss) and comprehensive income (loss).

(vi) On June 30, 2022, the Company granted 15,000 RSUs to a consultant of the Company, vested immediately. The vesting of these RSUs resulted in stock-based compensation of $2,328 for the year ended December 31, 2022, which is included in operation and administration expenses on the consolidated statements of income (loss) and comprehensive income (loss).

(vii) On September 29, 2022 the Company granted 33,000 RSUs to two consultants of the Company, vested immediately. The vesting of these RSUs resulted in stock-based compensation of $2,889 for the year ended December 31, 2022, which is included in operation and administration expenses on the consolidated statements of income (loss) and comprehensive income (loss).

(viii) On October 31, 2022 the Company granted 1,599,150 RSUs to two consultants of the Company, vested immediately. The vesting of these RSUs resulted in stock-based compensation of $111,304 for the year ended December 31, 2022, which is included in operation and administration expenses on the consolidated statements of income (loss) and comprehensive income (loss).

(ix) On November 17, 2022 the Company granted 4,396,741 RSUs to certain key management of the Company. The RSUs vest in one third increments upon each anniversary of the grant date. The vesting of these RSUs resulted in stock-based compensation of $79,504 for the year ended December 31, 2022, which is included in operation and administration expenses on the consolidated statements of loss and comprehensive loss.

14. Deferred share units

Effective April 21, 2020, the Board of Directors approved a Deferred Share Unit ("DSU") Plan to grant DSUs to its directors. The DSU Plan permits the eligible directors to defer receipt of all or a portion of their retainer or compensation until termination of their services and to receive such fees in the form of cash at that time.

Upon vesting of the DSUs or termination of service as a director, the director will be able to redeem DSUs based upon the then market price of the Company's common share on the date of redemption in exchange for cash.

(Expressed in United States Dollars)

The following table summarizes the DSU activity during the years ended December 31, 2022 and 2021:

	Number of shares	Weighted average grant date fair value per share (C$)
Unvested as at December 31, 2020	7,500,000	$ 1.03
Vested	(1,875,000)	1.03
Unvested as at December 31, 2021	5,625,000	$ 1.03
Granted (i)	210,000	0.20
Vested (ii)(iii)	(3,125,000)	1.03
Unvested as at December 31, 2022	2,710,000	$ 1.00

(i) On April 21, 2020, the Company granted 7,500,000 DSUs. The DSUs vest in one fourth increments upon each anniversary of the grant date and expire in 5 years. On July 1, 2022 the Company granted 210,000 DSU's, these DSU's vest after 12 months of the issuance date. During the year ended December 31, 2022, and 2021 the Company recognized recovery of $282,967 and expense of $421,284, respectively, in stock-based compensation related to the DSUs, which is included in operation and administration expenses on the consolidated statements of income (loss) and comprehensive income (loss), as DSU's were settled in cash during the year ended December 31, 2022. Upon redemption of the 2,500,000 DSUs (see (iii)) the fair value of the remaining DSU liability at December, 2022 was $573,742.

(ii) On March 31, 2022, the Board approved the early vesting of 625,000 DSUs for one of the Company's Directors.

(iii) During the year ended December 31, 2022, the director redeemed 2,500,000 DSUs for C$750,000, and elected to use net proceeds to subscribe for 375,000 units in the Company's April 2022 special warrant issuance at C$0.30 per unit, with the balance of the redeemed amount payable in cash after applicable withholding tax deductions. The DSU's were therefore all accelerated to vest.

15. Commitments and contingencies

As stipulated in the agreement with the EPA and as described in Note 7, the Company is required to make two types of payments to the EPA and IDEQ, one for historical water treatment cost-recovery to the EPA, and the other for ongoing water treatment. Water treatment costs incurred through December 2021 are payable to the EPA, and water treatment costs incurred thereafter are payable to the IDEQ. The IDEQ (as done formerly by the EPA) invoices the Company on an annual basis for the actual water treatment costs, which may exceed the recognized estimated costs significantly. When the Company receives the water treatment invoices, it records any liability for actual costs over and above any estimates made and adjusts future estimates as required based on these actual invoices received. The Company is required to pay for the actual costs regardless of the periodic required estimated accruals and payments made each year.

On July 28, 2021, a lawsuit was filed in the US District Court for the District of Idaho brought by Crescent Mining, LLC ("Crescent"). The named defendants include Placer Mining, Robert Hopper Jr., and the Company. The lawsuit alleges that Placer Mining and Robert Hopper Jr. intentionally flooded the Crescent Mine during the period from 1991 and 1994, and that the Company is jointly and severally liable with the other defendants for unspecified past and future costs associated with the presence of AMD in the Crescent Mine. The plaintiff has requested unspecified damages. On September 20, 2021, the Company filed a motion to dismiss Crescent's claims against it, contending that such claims are facially deficient. On March 2, 2022, Chief US District Court Judge, David C. Nye granted in part and denied in part the Company's motion to dismiss. The court granted the Company's motion to dismiss Crescent's Cost Recovery claim under CERCLA Section 107(a), Declaratory Judgment, Tortious Interference, Trespass, Nuisance and Negligence claims. These claims were dismissed without prejudice. The court denied the motion to dismiss filed by Placer Mining Corp. for Crescent's trespass, nuisance and negligence claims. Crescent later filed an amended complaint on April 1, 2022. Placer Mining Corp. and Bunker Hill Mining Corp are named as co-defendants. Bunker Hill responded to the amended filing, refuting and denying all allegations made in the complaint except those that are assertions of fact as a matter of public record. The Company believes Crescent's lawsuit is without merit and intends to vigorously defend itself, as well as Placer Mining Corp. pursuant to the Company's indemnification of Placer Mining Corp in the Sale and Purchase agreement executed between the companies for the Mine on December 15, 2021.

(Expressed in United States Dollars)

16. Income taxes

As at December 31, 2022, and December 31, 2021, the Company had no accrued interest and penalties related to uncertain tax positions. The income tax provision differs from the amount of income tax determined by applying the U.S. federal tax rate of 21.0% (December 31, 2021 – 21.0%) to pretax loss from operations for the periods ended December 31, 2022 and December 31, 2021:

	Year Ended December 31, 2022	**Year Ended December 31, 2021**
Income (loss) before income taxes	$ 898,591	$ (6,402,277)
Expected income tax recovery	188,704	(1,344,478)
Change in estimates in respect of prior periods	(41,351)	837,195
Change in tax rate	133,687	274,477
Change in fair value of derivative liability	(3,296,242)	(2,583,095)
State and local taxes, net of federal benefit	(709,272)	(960,296)
Other	308	5,033
Change in valuation allowance	3,724,166	3,771,164
Total	$ -	$ -

Deferred tax assets and the valuation account are as follows:

	December 31, 2022	**December 31, 2021**
Deferred tax asset:		
Net operating loss carryforwards	$ 10,291,114	$ 6,724,313
Mineral interest purchase option	-	10,707,362
Mining interests	8,391,938	-
EPA liabilities	2,068,062	-

(Expressed in United States Dollars)

Other deferred tax assets	851,563	454,499
Valuation allowance	(21,602,677)	(17,886,174)
Total	$ -	$ -

	December 31, 2022	**December 31, 2021**
Deferred tax asset:		
Net operating loss carryforwards	$ 101,662	$ 59,955
Deferred tax liabilities:		
Equipment	-	(18,809)
Unrealized foreign exchange gain	(101,662)	(41,146)
Net deferred tax asset	$ -	$ -

The potential income tax benefit of these losses has been offset by a full valuation allowance.

As of December 31, 2022 and December 31, 2021, the Company has an unused net operating loss carryforward balance of $40,227,950, and $26,356,908, respectively, that is available to offset future taxable income. The net operating loss carryforwards generated before 2018 expire between 2031 and 2037. The losses generated in 2018 and later tax years do not expire.

The Company did not have any tax positions for which it is reasonably possible that the total amount of unrecognized tax benefits will significantly increase or decrease within the next 12 months.

The tax years that remain subject to examination by major taxing jurisdictions are those for the years ended December 31, 2022 and December 31, 2021 and years 2020, 2019, 2018, 2017, 2016, and 2015.

17. Related party transactions

The Company's key management personnel have the authority and responsibility for planning, directing and controlling the activities of the Company and consists of the Company's executive management team and management directors.

	Year Ended December 31, 2022	Year Ended December 31, 2021
Consulting fees, wages and bonus	$ 1,429,326	$ 901,210

At December 31, 2022 and December 31, 2021, $154,797 and $279,554, respectively is owed to key management personnel with all amounts included in accounts payable and accrued liabilities.

(i) During the year ended December 31, 2022, Wayne Parsons (Director and former CFO) billed $147,287 (year ended December 31, 2021 - $120,127) for consulting services to the Company, in addition to 2,500,000 DSU's which settled on June 30, 2022, at a value of $582,027 concurrent with his departure from the Board of Directors.

(ii) During the year ended December 31, 2022, Richard Williams (Director and Executive Chairman) billed $372,084 (year ended December 31, 2021 - $179,605) for consulting services and bonus payment to the Company. At December 31, 2022, $135,600 is owed to Richard Williams (December 31, 2021 - $108,719) for consulting services, with all amounts included in accounts payable and accrued liabilities.

During the year ended December 31, 2022, 1,110,756 restricted share units (RSU's) were issued to Richard Williams which will vest in one third increments on March 31, 2023, March 31, 2024, and March 31, 2025. The vesting of these RSU's resulted in stock-based compensation of $20,085 for the year ended December 31, 2022.

(iii) During the year ended December 31, 2022, the Company incurred $438,600 in payroll expense and bonus payment for Sam Ash (year ended December 31, 2021 - $250,000) for services to the Company. At December 31, 2022, $nil (December 31, 2021 - $62,500) is payable and included in accrued liabilities.

During the year ended December 31, 2022, 1,249,600 restricted share units (RSU's) were issued to Sam Ash which will vest in one third increments on March 31, 2023, March 31, 2024, and March 31, 2025. The vesting of these RSU's resulted in stock-based compensation of $22,596 for the year ended December 31, 2022.

(iv) During the year ended December 31, 2022, Pam Saxton (Director) billed $36,133 (year ended December 31, 2021 - $37,669) for consulting services to the Company.

(v) During the year ended December 31, 2022, Cassandra Joseph (Director) billed $36,133 (year ended December 31, 2021 - $37,494) for consulting services to the Company.

(vi) During the year ended December 31, 2022, Mark Cruise (Director) billed $15,774 (year ended December 31, 2021 - $0) for consulting services to the Company. On July 1, 2022, the Company issued 210,000 DSU's to a Mark Cruise.

(vii) During the year ended December 31, 2022, the Company incurred $383,315 in payroll expense and bonus payment for David Wiens (CFO) (year ended December 31, 2021, $276,315) for services to the Company. At December 31, 2022, $19,197 (year ended December 31, 2021 - $108,335) is payable, including reimbursable expenses, and included in accrued liabilities.

During the year ended December 31, 2022, 1,018,193 restricted share units (RSU's) were issued to David Wiens which will vest in one third increments on March 31, 2023, March 31, 2024, and March 31, 2025. The vesting of these RSU's resulted in stock-based compensation of $18,411 for the year ended December 31, 2022.

During the year ended December 31, 2021, 1,037,977 stock options were issued to David Wiens, of which 273,271 stock options vested immediately and the balance of 764,706 stock options vested on December 31, 2021. These options have a 5-year life and are exercisable at C$0.335 per common share. The grant date fair value of the options was estimated at $204,213. The vesting of these options resulted in stock-based compensation of $204,213 for the year ended December 31, 2021.

18. Subsequent events

Share Issuance

On January 10, 2023, the Company issued 6,377,272 common shares in connection with its election to satisfy interest payments under the outstanding convertible debentures for the three months ending December 31, 2022.

On March 31, 2023, the Company issued 8,464,288 common shares in connection with its election to satisfy interest payments under the outstanding convertible debentures for the three months ending March 31, 2023.

Corporate Update

On February 28, 2023, the Company reported that it had temporarily paused discretionary projects and procurement activities until the completion of its financing initiatives. Primarily due to the inability to procure certain long-lead items that were planned to be ordered by February 2023, and longer estimated delivery times thereof, the Company now expects the Bunker Hill Mine restart to be achieved in 2024.

Teck Warrant Amendment

On March 15, 2023, the Company amended the exercise price of 10,416,667 common stock purchase warrants of the Company (the "Warrants") and the expiry date of the warrants to March 31, 2023. The Warrants comprise units of the Company issued to Teck Resources Limited ("Teck") on a private placement basis on May 13, 2022, in consideration for the Company's acquisition of the Pend Oreille process plant. Each Warrant entitles the holder thereof to purchase one share of common stock of the Company (each, a "Warrant Share") at an exercise price of C$0.37 per Warrant Share at any time on or prior to May 12, 2025. The Company amended the exercise price of the Warrants from C$0.37 to C$0.11 per Warrant Share (the "Amended Exercise Price") and amend the expiry date from May 12, 2025, to March 31, 2023. Following the amendment of the terms of the warrants, Teck exercised all 10,416,667 warrants at an exercise price of C$0.11, for aggregate gross proceeds of approximately C$1,145,834 to the Company.

Termination of Prospectus Offering and Private Placement

On February 15, 2023, the Company reported that it intended to terminate its previously announced prospectus offering of Common Shares following its determination that effectiveness of a registration statement on Form S-1 would not be achievable in a time frame consistent with its capital requirements. Concurrently, the Company announced that it had entered into an agreement with a syndicate of agents in connection with a proposed private placement of up to C$9 million of special warrants of the Company (the "Special Warrants").

On March 28, 2023, the Company announced the closing of its private placement of the Special Warrants by issuing 51,633,727 Special Warrants at a price of C$0.12 per Special Warrant, for aggregate gross proceeds of C$6,196,047.26. Each Unit consists of one share of common stock of the Company (each, a "Unit Share") and one common stock purchase warrant of the Company (each, a "Warrant"). Each whole Warrant entitles the holder thereof to acquire one share of common stock of the Company (a "Warrant Share", and together with the Unit Shares, the "Underlying Shares") at an exercise price of C$0.15 per Warrant Share until March 27, 2026. In consideration for their services in connection with the Offering, a cash commission in the amount of C$211,461.38 is payable to the Agents. The Agents were also issued 2,070,258 compensation options (the "Compensation Options"). Each Compensation Option is exercisable to acquire one unit of the Company (a "Compensation Unit") at the Issue Price for a period of 36 months from March 27, 2023, subject to adjustment in certain events. Each Compensation Unit consists of one share of common stock of the Company and one common stock purchase warrant of the Company (an "Agents' Compensation Warrant"). Each Agents' Compensation Warrant entitles the holder thereof to acquire one share of common stock of the Company (an "Agents' Compensation Warrant Share") at a price of C$0.15 per Agents' Compensation Warrant Share until March 27, 2026.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

Effective September 2, 2014, the Company appointed the firm of MNP, LLP, Chartered Professional Accountants, as the Company's principal independent accountant to audit the Company's financial statements. The Company has had no disagreements with its accountants that would require disclosure pursuant to Item 304 of Regulation S-K.

ITEM 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

The Securities and Exchange Commission ("SEC") defines the term "disclosure controls and procedures" to mean a company's controls and other procedures of an issuer that are designed to ensure that information required to be disclosed in the reports that it files or submits under the Securities Exchange Act of 1934 (the "Exchange Act") is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by an issuer in the reports that it files or submits under the Exchange Act is accumulated and communicated to the issuer's management, including its principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure. The Company maintains such a system of controls and procedures in an effort to ensure that all information which it is required to disclose in the reports it files under the Exchange Act is recorded, processed, summarized and reported within the time periods specified under the SEC's rules and forms and that information required to be disclosed is accumulated and communicated to principal executive and principal financial officers to allow timely decisions regarding disclosure.

As of the end of the period covered by this report, the Company made an evaluation of the effectiveness of the design and operation of the disclosure controls and procedures over financial reporting for the timely alert to material information required to be included in the Company's periodic SEC reports and of ensuring that such information is recorded, processed, summarized and reported within the time periods specified. This evaluation resulted in the conclusion that the design and operation of the disclosure controls and procedures were effective as of December 31, 2022.

Internal Control Over Financial Reporting

The management of the Company is responsible for the preparation of the financial statements and related financial information appearing in this report. The financial statements and notes have been prepared in conformity with accounting principles generally accepted in the United States of America. The management of the Company also is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. A company's internal control over financial reporting is defined as a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. The Company's internal control over financial reporting includes those policies and procedures that: i) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the Company; ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the issuer are being made only in accordance with authorizations of management and directors of the Company; and iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the financial statements.

Management, including the CEO and CFO, does not expect that the Company's disclosure controls, procedures and internal control over financial reporting will prevent all error and all fraud. Because of its inherent limitations, a system of internal control over financial reporting can provide only reasonable, not absolute, assurance that the objectives of the control system are met and may not prevent or detect misstatements. Further, over time, control may become inadequate because of changes in conditions or the degree of compliance with the policies or procedures may deteriorate. The design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the Company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented if there exists in an individual a desire to do so. There can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions.

With the participation of the CEO and CFO, the Company's management evaluated the effectiveness of the Company's internal control over financial reporting as of December 31, 2022 to ensure that information required to be disclosed by the Company in the reports filed or submitted by the Company under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, including to ensure that information required to be disclosed by the Company in the reports filed or submitted by the Company under the Exchange Act is accumulated and communicated to the Company's management, including the Company's principal executive and principal financial officer, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure. Based on that evaluation, the Company's CEO and CFO have concluded that the internal control over financial reporting was effective as of December 31, 2022.

Changes in Disclosure Controls and Procedures and Internal Control Over Financial Reporting

There has been no change in the Company's disclosure controls and procedures and internal control over financial reporting, other than the remediation of the material weakness described below that materially affected or was reasonably likely to materially affect the Company's disclosure controls and procedures and internal control over financial reporting.

Remediation of Previously Reported Material Weakness

As previously disclosed in the Form 10-K for the year ended December 31, 2021, management had concluded there was a material weakness in the Company's disclosure controls and procedures and identified significant deficiencies in the Company's internal control over financial reporting.

Remediation actions were fully implemented and executed during the year ended December 31, 2022, which include:

- The Company replaced certain accounting resources with qualified finance and accounting staff who are experienced in established and proven internal controls and accounting procedures with other companies in the same industry.
- The Company engaged a third-party firm to assist in developing and implementing disclosure controls and procedures and internal control policies and procedures over financial reporting.
- Appropriate segregation and assignment of duties between individuals and third-party firms were implemented to perform the regular accounting and finance functions of the Company to assure that transactions occurred timely and in a controlled manner.
- Processes and controls were implemented over accounts payable transactions and account reconciliations, including the timely submission, review and payment of management expense reports.

These remediation actions were fully implemented and are reflected in the Company's transactions in 2022; and, as a result, the Company's management, with the participation of the CEO and CFO, have concluded that, as of December 31. 2022, the material weakness was remediated.

This report does not include an attestation report of the Company's registered public accounting firm regarding disclosure controls and procedures and internal control over financial reporting. Management's report is not subject to attestation by the Company's registered public accounting firm.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS, AND CORPORATE GOVERNANCE

Directors and Executive Officers

The following table sets forth the directors, executive officers, their ages, and all offices and positions held within the Company as of December 31, 2022. Directors are elected for a period of one year and thereafter serve until their successor is duly elected by the stockholders and qualified. Officers and other employees serve at the will of the Board.

Name	Position Held with the Company	Age	Date First Elected or Appointed
Sam Ash	President, CEO and Director	44	April 14, 2020
Richard Williams	Executive Chairman and Director	56	March 27, 2020
David Wiens	CFO and Corporate Secretary	43	January 12, 2021
Mark Cruise	Director	52	June 30, 2022
Cassandra Joseph	Director	51	November 2, 2020
Dickson Hall	Director	70	January 5, 2018
Pamela Saxton	Director	70	October 30, 2020

Biographical Information

Sam Ash was a Partner from 2015 at Barrick Gold Corp. ("Barrick") and held various roles over the nine years employed there. This includes three years as General Manager of the Lumwana Copper Mine in Zambia, Technical Support Manager to Barrick's Copper Business Unit, General Support Manager on the Cortez Mine in Nevada and Chief Engineer leading the roll-out of new Underground Mining standards in the USA and Tanzania. Prior to his time at Barrick, Mr. Ash served as Manager of New Operations for Veris Gold Corp. (formerly, Yukon-Nevada Gold Corp.) primarily on the Jerritt Canyon Mine in Nevada, and also as an Underground Mine Supervisor with Drummond Company, Inc. He has recently completed his Masters' Degree in Leadership and Strategy at the London Business School and has a BS in Mining Engineering from the University of Missouri Rolla.

Richard Williams is an executive with an established track-record of transformational leadership within the mining industry and other demanding environments. He is currently an advisor to companies facing complex operational, political or ESG challenges. Formerly the Chief Operating Officer of Barrick and the company's Executive Envoy to Tanzania, he has also served as Chief Executive Officer of the Afghan Gold and Minerals Company, Non-Executive Director of Trevali Mining Corporation and as a Non-Executive Director of Gem Diamonds Limited. Prior to his commercial mining experience, Mr. Williams served as the Commanding Officer of the British Army's Special Forces Regiment, the SAS. He holds an MBA from Cranfield University, a BSc in Economics from University College London and an MA in Security Studies from Kings College London.

David Wiens is the Company's Chief Financial Officer and Corporate Secretary. Mr. Wiens is an experienced mining executive with over 18 years' experience in corporate finance, financial planning & analysis, treasury and investor relations. Mr. Wiens spent the last eight years with Americas-focused precious metals companies, including over six years at SSR Mining Inc. where he was part of a team that transformed the company from a single asset silver producer with limited mine life to a diversified long-life precious metals company, while meeting production and cost guidance seven years in a row. As Director, Corporate Finance, he led a number of functions including corporate finance, FP&A, treasury, investor relations, concentrate marketing and gold dore sales. SSR Mining Inc. completed a $5 billion merger with Alacer Gold Corp. in September 2020. Prior to his corporate roles, he was an investment banker at a number of financial institutions, including Deutsche Bank AG in London, United Kingdom. Mr. Wiens earned his Bachelor of Commerce with a Finance specialization at the University of British Columbia in Canada, is a CFA® Charterholder, and is completing the CPA designation.

Mark Cruise is a professional geologist with over 27 years of international exploration, development and mining experience. A former polymetallic commodity specialist with Anglo American plc, Dr Cruise founded and was Chief Executive Officer of Trevali Mining Corporation. Under his leadership, from 2008-2019, the company grew from an initial discovery into a global zinc-lead-silver producer with operations in the Americas and Africa. He has previously served as Vice President Business Development and Exploration, COO and CEO for several TSX, TSX-Venture and NYSE-Americas listed exploration and development Companies. Mark has been an independent Director ofmultiple TSX-V; TSX and NYSE-Americas listed Companies with market capitalizations ranging from tens of millions to in-excess of US$1 billion.

Cassandra Joseph is an American lawyer with extensive experience managing the commercial relationship between mining companies and environmental regulators. She is currently VP General Counsel and Corporate Secretary, having previously been Senior Vice President, General Counsel and Corporate Secretary for Nevada Copper Corp. and Associate General Counsel for Tahoe Resources Inc. until it was acquired by Pan American Silver Corp. in 2019. Before this, she worked for the Attorney Generals of California and Nevada, as Deputy and Senior Deputy Attorney General, and as a partner in Watson Rounds PLC (now Brownstein Hyatt Farber Schreck LLP). Educated at Santa Clara University, and University of California at Berkeley, she was called to the State Bar of California in 1999; the US Court of Appeals, Ninth Circuit in 2001; State Bar of Nevada in 2005; and the US Supreme Court, US Court of Appeals and Federal Circuit in 2007.

Dickson Hall currently serves as a Director. He is a partner in Valuestone Advisory Limited, manager of Valuestone Global Resources Fund 1, a mining fund associated with Jiangxi Copper Corporation and China Construction Bank International. Mr. Hall has more than 40 years' experience in the resource field, much of it in Asia. From 2005 to 2016 he directed corporate development efforts in Asia for Hunter Dickinson Inc. (HDI) raising capital, establishing strategic partnerships and broadening the Asian shareholder base for HDI public companies. He was Senior Vice President of Continental Minerals Corporation which developed the Xietongmen copper-gold project in Tibet, China before selling to China's Jinchuan Group in 2011 for $446 million. Mr. Hall is also a director and Investment Committee member of Can-China Global Resources Fund, an energy and mining fund backed by the Export-Import Bank of China. He is or has been a director of various resource and non-resource companies. Mr. Hall is a graduate of the University of British Columbia (BA, MA) and has diplomas from Beijing University and Beijing Language Institute.

Pam Saxton is an experienced mining company executive and Director. She is currently on the Board of Timberline Resources Corporation and serves as Audit Committee Chair and was previously a Board Member and Audit Committee Chair at Pershing Gold Corporation. She also was on the Board of Aquila Resources Inc. and served on a North American Advisory Board for Damstra Technology – Damstra Holdings Limited. As an Executive, she has served as CFO for Thompson Creek Metals Company and NewWest Gold Corporation, both in Colorado. Having started her professional life working as an auditor for Arthur Andersen in Denver, her career has included senior finance appointments in the American Natural Resources Industry including serving as VP Finance for Franco-Nevada Corporation's U.S. Operations. Ms. Saxton is qualified to serve on the Board by virtue of her expertise in finance, accounting and auditing matters.

Family Relationships

There are no family relationships between any of the current directors or officers of the Company.

Involvement in Certain Legal Proceedings

Neither the Company nor its property is the subject of any other pending legal proceedings, and no other such proceeding is known to be contemplated by any governmental authority. The Company is not aware of any other legal proceedings in which any director, officer or affiliate of the Company, any owner of record or beneficially of more than 5% of any class of the Company's voting securities, or any associate of any such director, officer, affiliate or security holder of the Company, is a party adverse to the Company or any of its subsidiaries or has a material interest adverse to the Company or any of its subsidiaries.

Directorships

None of the Company’s executive officers or directors is a director of any company with a class of equity securities registered pursuant to Section 12 of the Exchange Act or subject to the requirements of the Exchange Act or any company registered as an investment company under the Investment Company Act of 1940.

Code of Ethics

The Company’s Board has adopted a code of ethics that will apply to its principal executive officer, principal financial officer and principal accounting officer or controller and to persons performing similar functions. The code of ethics is designed to deter wrongdoing and to promote honest and ethical conduct, full, fair, accurate, timely and understandable disclosure, compliance with applicable laws, rules and regulations, prompt internal reporting of violations of the code and accountability for adherence to the code. The Company will provide a copy of its code of ethics, without charge, to any person upon receipt of written request for such, delivered to our corporate headquarters. All such requests should be sent care of Bunker Hill Mining Corp., Attn: Corporate Secretary, 82 Richmond Street East, Toronto, Ontario, Canada, M5C 1P1.

ITEM 11. EXECUTIVE COMPENSATION

Summary Compensation Table

The following table sets forth, for the years indicated, all compensation paid, distributed or accrued for services, including salary and bonus amounts, rendered in all capacities by the Company’s principal executive officer, chief financial officer and all other executive officers; the information contained below represents compensation paid, distributed or accrued to the Company’s officers for their work related to the Company.

Name and Principal Position	Year	Salary ($)	Bonus ($)	Stock Awards [4]($)	Option Awards [1]($)	Non-Equity Incentive Plan Compensation (#)	Non-qualified Deferred Compensation Earnings ($)	All other Compensation ($)	Total ($)
David Wiens[2]	December 31, 2022	219,848	163,467	118,217	-	-	-	-	501,532
Chief Financial Officer	December 31, 2021	210,315	66,000[3]	-	204,213	-	-	-	480,208
John Ryan [5]	December 31, 2022	-	-	-	-	-	-	-	-
Former Chief Executive Officer	December 31, 2021	-	-	-	-	-	-	-	-
Richard Williams	December 31, 2022	240,000	132,084	128,964	-	-	-	-	501,048

Executive Chairman	December 31, 2021	180,000	-	-	-	-	-	-	180,000
Sam Ash(5)	December 31, 2022	270,000	168,600	145,085	-	-	-	-	603,685
Chief Executive Officer	December 31, 2021	250,000	-	-	-	-	-	-	250,000

(1) Option awards reflect the aggregate grant date fair value computed using the Black-Scholes model; for a discussion, please refer to Note 11 in the Notes to the Financial Statements herein.

(2) David Wiens appointed as the Company's CFO on January 1, 2021. On February 19, 2021, 1,037,977 stock options were issued to David Wiens, of which 273,271 stock options vested immediately and the balance of 764,706 stock options vested on December 31, 2021. These options have a 5-year life and are exercisable at C$0.335 per common share. The grant date fair value of the options was estimated at $204,213.

(3) In February 2021, the Company issued 208,860 February 2021 Units at a deemed price of $0.45 to settle $66,000 (C$83,544) of bonus owed to David Wiens. Each February 2021 Unit consisted of one common share and one common share purchase warrant, which entitles the holder to acquire a common share of the Company at C$0.60 per common share for a period of five years until February 16, 2026.

(4) In November 2022, 3,378,548 RSU's were issued to officers of the Company. These RSU's are calculated using a share price of C$.0155 on the applicable grant date and will vest in one third increments on March 31, 2023, March 31, 2024, and March 31, 2025.

(5) Sam Ash became the Company's CEO on April 14, 2020.

Grant of Plan Based Awards

On February 19, 2021, 1,037,977 stock options were issued to an officer of the Company, of which 273,271 stock options vest immediately and the balance of 764,706 stock options shall vest on December 31, 2021. These options have a 5-year life and are exercisable at C$0.335 per Common Share.

On November 17, 2022, 3,378,548 RSU's were issued to officers of the Company. These RSU's will vest in one third increments on March 31, 2023, March 31, 2024, and March 31, 2025.

Outstanding Stock Options Awards At Fiscal Year End

The following table provides a summary of equity awards outstanding at December 31, 2022, for each of the named executive officers.

	Option Awards					Stock Awards			
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised	Option Exercise Price (C$)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested	Market Value of Shares or Units of Stock That	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares,

			Unearned Options (#)			**(#)**	**Have Not Vested ($)**	**Rights That Have Not Vested (#)**	**Units or Other Rights That Have Not Vested ($)**
John Ryan	390,000	—	—	0.60	October 24, 2024	—	—	100,000	12,552
Sam Ash	—	—	—	—	—	—	—	1,449,600	181,949
Richard Williams[1]	989,415	2,968,244	—	0.55	April 20, 2025	—	—	1,110,756	139,419
David Wiens	1,037,977	—	—	0.335	February 19, 2026	—	—	1,018,193	127,800

(1) As of December 31, 2022, Richard Williams held 2,500,000 vested DSU's and 2,500,000 unvested DSU's.

Long-Term Incentive and Compensation Plans

In May 2020, and as part of its overall compensation planning, the Board introduced a long-term incentive plan (the "Long Term Incentive Plan" or "LTIP") that provides for time-based RSUs, DSUs, options ("Options") and performance-based share unit awards ("PSUs", and collectively with RSUs, DSUs and Options, "Awards") that may be granted to employees, officers and eligible consultants and directors of the Company and its affiliates. Recipients of Awards are defined as "Participants".

The aim of the Company's compensation program is to attract and retain highly qualified executives and to link compensation to performance and shareholder value. This must ensure that the compensation is sufficiently competitive to achieve this objective. The Board considers a number of factors in order to determine compensation, including the Company's contractual obligations, the individual's performance and other qualitative aspects of the individual's performance and achievements, the amount of time and effort the individual will devote to the Company and the Company's financial resources.

The Company's compensation program is comprised of:

(a) **A base salary or management fee arrangement and benefits**. The base salaries or management fee arrangements and benefits paid to the key executives are not based on any specific formula and are set so as to be competitive with other companies of similar size and state of development in the mineral industry. This base salary also includes sign-on incentives, which may be issued in the form of cash, RSUs, DSUs or Options.

(b) **A short-term incentive program in the form of bonuses**. Bonuses are paid to key executives based on individual, team and Company performance and the executive's position in the Company. Any bonus awards are at the sole discretion of the Board.

(c) **Long-term Incentive Plan**. The LTIP consists of DSUs, RSUs, PSUs, and Options which provide the Board with additional long-term incentive mechanisms to align the interests of the directors, officers, employees or consultants of the Company with shareholder interests. The LTIP also provides for, among other things, an accelerated vesting of awards in the event of a change in control, thereby aligning the Company's practices with current corporate governance best practices respecting a change in control.

The Board believe that equity-based compensation plans are the most effective way to align the interests of management with those of shareholders. Long-term incentives must also be competitive and align with the Company's compensation philosophy.

The Company does not have a pension plan that provides for payments or benefits to its executive officers.

Change of Control Agreements

The Company has provided change of control benefits to certain senior officers to encourage them to continue their employment in the event of a purchase, sale, reorganization, or other significant change in the business.

If the employment agreement of the senior officer is terminated by the (a) Company without just cause, or (b) senior officer for good reason pursuant to the terms of the employment agreement, at any time within 12 months of a change of control, the Company is required to make a lump sum severance payment equal to 24 months of base salary. In addition, at such time all Awards shall be deemed to have vested, and all restrictions and conditions applicable to such Awards shall be deemed to have lapsed and the Awards shall be issued and delivered.

Employment Agreements

The Company has various employment agreements with certain executives, which provide for compensation and certain other benefits and for severance payments under certain circumstances. Certain employment agreements also contain clauses that become effective upon a change of control of the Company, as described above. The Company may be obligated to pay certain amounts to such employees upon the occurrence of any of the defined events in the various employment agreements.

Equity Compensation Plan Information

On April 19, 2011, subject to shareholder approval, which was obtained at the Company's annual and special meeting of shareholders held on December 21, 2012, the Board approved the adoption of the Liberty Silver Corp. Incentive Share Plan (the "Plan") under which Common Shares of the Company's common stock have been reserved for purposes of possible future issuance of incentive stock options, non-qualified stock options, and stock grants to employees, directors and certain key individuals. Under the Plan, the maximum number of Common Shares reserved for issuance shall not exceed 10% of the Common Shares of the Company outstanding from time to time. The purpose of the Plan shall be to advance the interests of the Company by encouraging equity participation in the Company through the acquisition of Common Shares of the Company. In order to maintain flexibility in the award of stock benefits, the Plan constitutes a single plan, but is composed of two parts. The first part is the Share Option Plan which provides grants of both incentive stock options under Section 422A of the Internal Revenue Code of 1986, as amended, and nonqualified stock options. The second part is the Share Bonus Plan which provides grants of shares of Company common stock. The following is intended to be a summary of some of the material terms of the Plan, and is subject to, and qualified in its entirety, by the full text of the Plan.

<u>The Plan</u>

The Plan is a rolling plan, under which the maximum number of Common Shares reserved for issuance under the Share Option Plan, together with the Share Bonus Plan, shall not exceed 10% of the Common Shares outstanding (on a non-diluted basis) at any given time. The purpose of the Plan is to advance the interests of the Company by: (i) providing certain employees, senior officers, directors, or consultants of the Company (collectively, the "Optionees") with additional performance incentives; (ii) encouraging share ownership by the Optionees; (iii) increasing the proprietary interest of the Optionees in the success of the Company; (iv) encouraging the Optionees to remain with the Company; and (v) attracting new employees, officers, directors and consultants to the Company.

<u>Share Option Plan</u>

The following information is intended to be a brief description and summary of the material features of the Share Option Plan:

(a) The aggregate maximum number of Common Shares available for issuance from treasury under the Share Option Plan, together with the Share Bonus Plan, at any given time is 10% of the outstanding Common Shares as at the date of grant of an option under the Plan, subject to adjustment or increase of such number pursuant to the terms of the Plan. Any Common Shares subject to an option which has been granted under the Share Option Plan and which has been surrendered, terminated, or expired without being exercised, in whole or in part, will again be available under the Plan.

(b) The exercise price of an option shall be determined by the Board at the time each option is granted, provided that such price shall not be less than the closing price of the Common Shares on the principal stock exchange(s) upon which the Common Shares are listed and posted for trading on the trading day immediately preceding the day of the grant of the option.

(c) Options granted to persons conducting Investor Relations Activities (as defined in the Plan) for the Company must vest in stages over twelve months with no more than ¼ of the options vesting in any three-month period.

(d) In the event an Optionee ceases to be eligible for the grant of options under the Share Option Plan, options previously granted to such person will cease to be exercisable within a period of 12 months following the date such person ceases to be eligible under the Plan.

(e) In the event that a take-over bid or issuer bid is made for all or any of the issued and outstanding Shares, then the Board may, by resolution, permit all options outstanding to become immediately exercisable in order to permit Common Shares issuable under such options to be tendered to such bid.

Share Bonus Plan

The following information is intended to be a brief description and summary of the material features of the Share Bonus Plan:

(a) Participants in the Share Bonus Plan shall be directors, officers, employees, or consultants of the Company who, by the nature of their positions are, in the opinion of the Board and upon the recommendation of the President of the Company, in a position to contribute to the success of the Company.
(b) The determination regarding the amount of bonus Common Shares issued pursuant to the Share Bonus Plan will take into consideration the Optionee's present and potential contribution to the success of the Company and shall be determined from time to time by the Board. However, in no event shall the number of bonus Common Shares pursuant to the Share Bonus Plan, together with the Share Option Plan, exceed 10% of the issued and outstanding Common Shares in the aggregate.

General Features of the Plan

In addition to the above summaries of the Share Option Plan and the Share Bonus Plan, the following is intended to be a brief description and summary of some of the general features of the Plan:

(a) The aggregate number of Common Shares reserved pursuant to the Plan for issuance to insiders of the Company within any twelve-month period, under all security-based compensation arrangements of the Company, shall not exceed 10% of the total number of Common Shares then outstanding.
(b) The aggregate number of Common Shares reserved for issuance pursuant to the Plan to any one person in any twelve-month period shall not exceed 5% of the total number of Common Shares outstanding from time to time, unless disinterested shareholder approval is obtained pursuant to the policies of the Company's

principal stock exchange(s) upon which the Common Shares are listed and posted for trading or any stock exchange or regulatory authority having jurisdiction over the securities of the Company. No more than 2% of the outstanding Common Shares may be granted to any one Consultant (as defined in the Plan) in any twelve-month period, or to persons conducting Investor Relations Activities (as defined in the Plan) in any twelve-month period.

RSU Plan

On November 15, 2022, the Board of the Company approved the adoption of the Company's Restricted Stock Unit Incentive Plan (the "RSU Plan") under which RSUs of the Company, whereby each RSU represents the right to receive one Common Share, have been reserved for purposes of possible future issuances of RSUs. The RSU Plan is intended to enhance the Company's ability to attract and retain highly qualified officers, directors, key employees, consultants and other persons, and to motivate such officers, directors, key employees, consultants and other persons to serve the Company and to expend maximum effort to improve the business results and earnings of the Company by providing to such persons an opportunity to acquire or increase a direct proprietary interest in the operations and future success of the Company. To this end, the RSU Plan provides for the grant of RSUs and any of these awards of RSUs ("RSU Awards") may, but need not, be made as performance incentives to reward attainment of annual or long-term performance goals of the Company.

The following information is intended to be a brief description and summary of the material features of the RSU Plan:

(a) The maximum number of Common Shares available for issuance under the RSU Plan shall be 14,125,808, subject to adjustment or increase of such number pursuant to the terms of the RSU Plan.
(b) The number of Common Shares to be issued under the RSU Plan shall not exceed 10% of the total number of the issued and outstanding Common Shares.
(c) In the event that an RSU Award is exercised for Common Shares, the Common Shares reserved for issuance in connection with such RSU Award will be returned to the pool of available Common Shares authorized for issuance under the RSU Plan and will be available for reservation pursuant to a new RSU Award grant.
(d) RSU Awards may be made under the RSU Plan to any employee, director or consultant of the Company, as the Board shall determine and designate from time to time.
(e) RSU Awards granted under the RSU Plan may, in the discretion of the Board, be granted either alone or in addition to, in tandem with, or in substitution or exchange for, any other RSU Award or any award granted under another plan of the Company.
(f) At the time a grant of RSUs is made, the Board may, in its sole discretion, establish a vesting period applicable to such RSUs, and each RSU Award may be subject to a different vesting period.

DSU Plan

On April 21, 2020, the Board approved the adoption of the Company's Deferred Share Unit Plan (the "DSU Plan"), pursuant to which the Board may grant DSUs to eligible persons under the DSU Plan. Each DSU entitles the grantee to receive on vesting an amount equal to: (A) the number of vested DSUs elected to be redeemed multiplied by (B) the fair market value of the Common Shares less (C) any applicable withholdings pursuant to the DSU Plan. The purposes of the DSU Plan are to: (i) align the interests of directors of the Company with the long term interests of shareholders of the Company; and (ii) allow the Company to attract and retain high quality directors.

The following information is intended to be a brief description and summary of the material features of the DSU Plan:

(a) A committee of directors of the Company appointed by the Board to administer the DSU Plan may grant DSUs to any director of the Company in its sole discretion.
(b) Awards may be made under the DSU Plan to any director of the Company, as the committee appointed by the Board shall determine and designate from time to time.

(c) Should the Common Shares no longer be publicly traded at the relevant time such that the fair market value of the Common Shares cannot be determined in accordance with the formula set out in the definition of that term pursuant to the DSU Plan, the fair market value of a Common Share shall be determined by the committee appointed by the Board in its sole discretion.

(d) At the time a grant of DSUs is made, the committee appointed by the Board may, in its sole discretion, establish a vesting period applicable to such DSUs.

Director Compensation

The general policy of the Board is that compensation for independent directors should be a fair mix between cash and equity-based compensation. Additionally, the Company reimburses directors for reasonable expenses incurred during the course of their performance. There are no long-term incentive or medical reimbursement plans. The Company does not pay directors, who are part of management, for Board service in addition to their regular employee compensation. The Board determines the amount of director compensation. The board may appoint a compensation committee to take on this role.

The following table provides a summary of compensation paid to directors during the year ended December 31, 2022.

Director	Fees Earned or Paid in Cash ($)	Stock Awards ($)	Option Awards ($)	Non-Equity Incentive Plan Compensation ($)	Nonqualified Deferred Compensation Earnings	All Other Compensation ($)[1]	Total ($)
Dickson Hall	40,000	—	—	—	—	—	40,000
Mark Cruise	15,774	—	—	—	—	32,594	48,368
Richard Williams	372,084	—	—	—	—	—	372,084
Pam Saxton	36,133	—	—	—	—	40,000	86,129
Cassandra Joseph	36,133	—	—	—	—	40,000	86,129

(1) RSUs granted to Mark Cruise are calculated using a share price of C$0.20 on the applicable grant date.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Equity Compensation Plan

The following table gives information about the Company’s Equity Compensation Plan as of December 31, 2022:

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants	Weighted average exercise price of outstanding options, warrants	Number of securities remaining available for future issuances under equity compensation plans, excluding securities reflected in column (a)
	(a)	**(b)**	**(c)**
Equity compensation plans approved by security holders	**9,320,636**	**$ 0.38**	**13,629,530**
Equity compensation plans not approved by security holders	**-**	**-**	**-**

Total	**9,320,636**	**$**	**0.38**	**13,629,530**

Plan category	Number of securities to be issued upon exercise of outstanding RSUs and DSUs		Weighted average grant date price of outstanding RSUs and DSUs	Number of securities remaining available for future issuances under equity compensation plans, excluding securities reflected in column (a)
	(a)		**(b)**	**(c)**
RSU Plan	4,822,741	$	0.17	9,303,067
DSU Plan	0(1)	$	N/A	N/A
Total	4,822,741	$	0.17	9,303,067

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Certain Relationships and Related Transactions

There were no material transactions, or series of similar transactions, during the Company's last fiscal year, or any currently proposed transactions, or series of similar transactions, to which the Company was or is to be a party, in which the amount involved exceeded the lesser of $120,000 or one percent of the average of the small business issuer's total assets at year-end for the last three completed fiscal years and in which any director, executive officer or any security holder who is known to the Company to own of record or beneficially more than five percent of any class of the Company's common stock, or any member of the immediate family of any of the foregoing persons, had an interest.

Director Independence

The Company's common stock is currently traded on the CSE, under the symbol BNKR, and as such, is not subject to the rules of any national securities exchange which requires that a majority of a listed company's directors and specified committees of its board of directors meet independence standards prescribed by such rules. For the purpose of preparing the disclosures in this document with respect to director independence, the Company has used the definition of "independent director" within the meaning of National Instrument 52-110 – *Audit Committees* adopted by the Canadian Securities Administration and as set forth in the Marketplace Rules of the NASDAQ, which defines an "independent director" generally as being a person, other than an executive officer or employee of the company or any other individual having a relationship which, in the opinion of the company's board of directors, would interfere with the exercise of independent judgment in carrying out the responsibilities of a director.

Pam Saxton, Cassandra Joseph, Mark Cruise and Dickson Hall are currently the only "independent" directors of the Company.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Audit Fees

Effective September 2, 2014, the Company appointed the firm of MNP, LLP, Chartered Professional Accountants, as the Company's independent audit firm.

MNP, LLP, Chartered Professional Accountants, 50 Burnhamthorpe Road West, Mississauga, ON L5B 3C2, served as the Company's independent registered public accounting firm for the years ended December 31, 2022 and 2021, and is expected to serve in that capacity for the ensuing year 2023. Principal accounting fees for professional services rendered for the Company by MNP, LLP for the years ended December 31, 2022 and 2021 are summarized in the following table:

	Year Ended December 31, 2022	Year Ended December 31, 2021
Audit	$ 92,292	$ 107,129
Audit related	101,616	36,449
Tax	-	-
All other	95,387	12,841
Total	$ 289,295	$ 156,419

Audit Related Fees

The aggregate fees billed by MNP, LLP for assurance and related services that were related to its review of the Company's quarterly financial statements.

Tax Fees

The aggregate fees billed by MNP, LLP for tax compliance, advice and planning.

All Other Fees

The aggregate fees billed by MNP, LLP for all other professional services, including services associated with financing activities.

Audit Committee's Pre-approval Policies and Procedures

At the Company's regularly scheduled and special meetings, the Board, or the Board-appointed audit committee, considers and pre-approves any audit and non-audit services to be performed by the Company's independent registered public accounting firm. The audit committee has the authority to grant pre-approvals of non-audit services.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a)(1)(2) Financial Statements and Financial Statement Schedule.

The financial statements and financial statement schedules identified in Item 8 are filed as part of this report.

(a)(3) Exhibits.

The exhibits required by this item are set forth on the Exhibit Index below.

3.1 Amended and Restated Articles of Incorporation of Liberty Silver Corp. (incorporated by reference to Exhibits 3.8 and 3.9 to the Form S-1 filed on October 27, 2020)

3.2	Certificate of Change dated May 1, 2019 (incorporated by reference to Exhibit 3.10 to the Form S-1 filed on October 27, 2020)
3.3	Certificate of Amendment dated September 11, 2020 (incorporated by reference to Exhibit 3.11 to the Form S-1 filed on October 27, 2020)
3.4	Certificate of Amendment dated November 17, 2022 (incorporated by reference to Exhibit 3.4 to Amendment No. 1 to the Form S-1 filed on December 23, 2022)
3.5	Certificate of Correction dated December 6, 2022 (incorporated by reference to Exhibit 3.5 to Amendment No. 1 to the Form S-1 filed on December 23, 2022)
3.6	Amended and Restated Bylaws of Liberty Silver Corp., dated December 21, 2012. (incorporated by reference to Exhibit 3.6 to the Form 8-K filed on December 28, 2012)
4.1	Warrant Indenture dated as of August 14, 2020 (incorporated by reference to Exhibit 4.1 to the Form S-1 filed on October 27, 2020)
4.2	Form of Warrant Certificate dated February 2021 (incorporated by reference to Exhibit 4.2 to Amendment No. 3 to the Form S-1 filed on January 25, 2023)
4.3	Underlying Warrant Indenture between the Company and Capital Transfer Agency dated April 1, 2022 (incorporated by reference to Exhibit 10.13 to the Form S-1 filed on May 2, 2022)
10.1	Settlement Agreement and Order on Consent for Response Action by Bunker Hill Mining Corp., effective May 15, 2018 (incorporated by reference to Exhibit 10.1 to the Form 8-K filed on May 21, 2018)
10.2	First Amendment to the Settlement Agreement with EPA (incorporated by reference to Exhibit 10.1 to the Form 8-K filed on January 3, 2022)
10.3	Purchase Agreement with respect to the Bunker Hill Mine (incorporated by reference to Exhibit 10.2 to the Form 8-K filed on January 3, 2022)
10.4	Form of Secured Convertible Note (incorporated by reference to Exhibit 10.1 to the Form 8-K filed on February 4, 2022)
10.5	Secured Royalty Convertible Debenture (incorporated by reference to Exhibit 10.2 to the Form 8-K filed on February 4, 2022)
10.6	Asset sale purchase agreement for the Pend Oreille process plant between Silver Valley Metals Corp. (a subsidiary of the Company) and Teck Washington Incorporated (incorporated by reference to Exhibit 10.1 to the Form 8-K filed on March 14, 2022)
10.7	Series 2 Convertible Debenture (incorporated by reference to Exhibit 10.5 to Amendment No. 1 to the Form S-1 filed on December 23, 2022)
10.8	Sprott Loan Facility (incorporated by reference to Exhibit 10.6 to Amendment No. 1 to the Form S-1 filed on December 23, 2022)
10.9	Second Omnibus Amendment (incorporated by reference to Exhibit 10.7 to Amendment No. 1 to the Form S-1 filed on December 23, 2022)
10.10	Agency Agreement, dated as of March 27, 2023, by and among Bunker Hill Mining Corp., Echelon Wealth Partners Inc., Roth Capital Partners, LLC and Laurentian Bank Securities Inc. (incorporated by reference to Exhibit 1.1 to the Form 8-K filed on March 31, 2023)
10.11	Form of Subscription Agreement for Special Warrant Financing between Bunker Hill Mining Corp. and each Purchaser (incorporated by reference to Exhibit 10.1 to the Form 8-K filed on March 31, 2023)
10.12	Special Warrant Indenture, dated as of March 27, 2023, between Bunker Hill Mining Corp. and Capital Transfer Agency ULC, as warrant agent (incorporated by reference to Exhibit 10.2 to the Form 8-K filed on March 31, 2023)
10.13	Warrant Indenture, dated as of March 27, 2023, between Bunker Hill Mining Corp. and Capital Transfer Agency ULC, as warrant agent (incorporated by reference to Exhibit 10.3 to the Form 8-K filed on March 31, 2023)
21.1	List of Subsidiaries (incorporated by reference to Exhibit 21.1 to the Form 10-KT filed on April 1, 2021)
23.1*	Consent of Resource Development Associates Inc.
23.2*	Consent of Robert H. Todd
23.3*	Consent of Peter Kondos
31.1*	Certifications pursuant to Rule 13a-14(a) or 15d-14(a) under the Securities Exchange Act of 1934, as amended, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2*	Certifications pursuant to Rule 13a-14(a) or 15d-14(a) under the Securities Exchange Act of 1934, as amended, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

32.1**	Certifications pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2**	Certifications pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
95.1*	Mine Safety Disclosure pursuant to Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act
96.1*	S-K 1300 Technical Report Summary, Bunker Hill Mine Pre-Feasibility Study, Coeur d'Alene Mining District, Shoshone County, Idaho, USA
101.INS	Inline XBRL Instance Document
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

* Filed herewith
** Furnished herewith

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

By: */s/ Sam Ash*
Sam Ash, Chief Executive Officer, Principal Executive Officer

By: */s/ David Wiens*
David Wiens, Chief Financial Officer and Corporate Secretary, Principal Financial Officer, Principal Accounting Officer

Date: April 17, 2023

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Date: April 17, 2023	By: */s/ Sam Ash* Name: Sam Ash Title: Chief Executive Officer, Principal Executive Officer
Date: April 17, 2023	By: */s/ David Wiens* Name: David Wiens Title: Chief Financial Officer and Corporate Secretary, Principal Financial Officer, Principal Accounting Officer
Date: April 17, 2023	By: */s/ Richard Williams* Name: Richard Williams

Title: Executive Chairman and Director

Date: April 17, 2023	By: */s/ Dickson Hall* Name: Dickson Hall Title: Director
Date: April 17, 2023	By: */s/ Mark Cruise* Name: Mark Cruise Title: Director
Date: April 17, 2023	By: */s/ Cassandra Joseph* Name: Cassandra Joseph Title: Director
Date: April 17, 2023	By: */s/ Pamela Saxton* Name: Pamela Saxton Title: Director

Exhibit 23.1

CONSENT OF RESOURCE DEVELOPMENT ASSOCIATES INC.

In connection with Bunker Hill Mining Corp.'s Annual Report on Form 10-K for the fiscal year ended December 31, 2022 (the "Form 10-K"), the undersigned consents to:

- the filing and use of the technical report summary titled "S-K 1300 Technical Report Summary, Bunker Hill Mine Pre-Feasibility Study, Coeur D'Alene Mining District, Shoshone County, Idaho, USA" (the "Technical Report Summary"), dated as of April 14, 2023 and effective as of August 29, 2022, as an exhibit to and referenced in the Form 10-K or any amendment or supplement thereto;

- the use of and references to our name, including our status as an expert or "qualified person" (as defined in Subpart 1300 of Regulation S-K promulgated by the Securities and Exchange Commission), in connection with the Form 10-K or any amendment or supplement thereto; and

- the information derived, summarized, quoted or referenced from the Technical Report Summary, or portions thereof, that was prepared by us, that we supervised the preparation of and/or that was reviewed and approved by us, that is included or incorporated by reference in the Form 10-K or any amendment or supplement thereto.

We are qualified persons responsible for authoring, and this consent pertains to, the following sections of the Technical Report Summary:

- Sections 1–9

- Section 11

- Sections 16–17

- Sections 20–25

Date: April 17, 2023	By: */s/ Signed "Resource Development Associates Inc."* Resource Development Associates Inc.

Exhibit 23.2

CONSENT OF ROBERT H. TODD

I, Robert H. Todd, in connection with Bunker Hill Mining Corp.'s Annual Report on Form 10-K for the fiscal year ended December 31, 2022 (the "Form 10-K"), consent to:

- the filing and use of the technical report summary titled "S-K 1300 Technical Report Summary, Bunker Hill Mine Pre-Feasibility Study, Coeur D'Alene Mining District, Shoshone County, Idaho, USA" (the "Technical Report Summary"), dated as of April 14, 2023 and effective as of August 29, 2022, as an exhibit to and referenced in the Form 10-K or any amendment or supplement thereto;

- the use of and references to my name, including my status as an expert or "qualified person" (as defined in Subpart 1300 of Regulation S-K promulgated by the Securities and Exchange Commission), in connection with the Form 10-K or any amendment or supplement thereto; and

- the information derived, summarized, quoted or referenced from the Technical Report Summary, or portions thereof, that was prepared by me, that I supervised the preparation of and/or that was reviewed and approved by me, that is included or incorporated by reference in the Form 10-K or any amendment or supplement thereto.

I am a qualified person responsible for authoring, and this consent pertains to, the following sections of the Technical Report Summary:

- Sections 12–13

- Section 15

- Sections 18–19

Date: April 17, 2023

By: */s/ Robert H. Todd*
Robert H. Todd, P.E.

Exhibit 23.3

CONSENT OF PETER KONDOS

I, Peter Kondos, in connection with Bunker Hill Mining Corp.'s Annual Report on Form 10-K for the fiscal year ended December 31, 2022 (the "Form 10-K"), consent to:

- the filing and use of the technical report summary titled "S-K 1300 Technical Report Summary, Bunker Hill Mine Pre-Feasibility Study, Coeur D'Alene Mining District, Shoshone County, Idaho, USA" (the "Technical Report Summary"), dated as of April 14, 2023 and effective as of August 29, 2022, as an exhibit to and referenced in the Form 10-K or any amendment or supplement thereto;

- the use of and references to my name, including my status as an expert or "qualified person" (as defined in Subpart 1300 of Regulation S-K promulgated by the Securities and Exchange Commission), in connection with the Form 10-K or any amendment or supplement thereto; and

- the information derived, summarized, quoted or referenced from the Technical Report Summary, or portions thereof, that was prepared by me, that I supervised the preparation of and/or that was reviewed and approved by me, that is included or incorporated by reference in the Form 10-K or any amendment or supplement thereto.

I am a qualified person responsible for authoring, and this consent pertains to, the following sections of the Technical Report Summary:

- Section 10

- Section 14

Date: April 17, 2023

By: */s/ Peter Kondos*
Peter Kondos, Ph.D.

Exhibit 31.1

CERTIFICATION

I, Sam Ash, certify that:

1. I have reviewed this annual report on Form 10-K of Bunker Hill Mining Corp.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report.

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects, the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report.

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (fourth quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors:

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: April 17, 2023

By: */s/ Sam Ash*
Sam Ash, Chief Executive Officer, President and
Principal Executive Officer

A signed original of this written statement has been provided to the registrant and will be retained by the registrant to be furnished to the Securities and Exchange Commission or its staff upon request.

Exhibit 31.2

CERTIFICATION

I, David Wiens, certify that:

1. I have reviewed this annual report on Form 10-K of Bunker Hill Mining Corp.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report.

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects, the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report.

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (fourth quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors:

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: April 17, 2023

By: */s/ David Wiens*
David Wiens, Chief Financial Officer, Principal Financial Officer

A signed original of this written statement has been provided to the registrant and will be retained by the registrant to be furnished to the Securities and Exchange Commission or its staff upon request.

Exhibit 32.1

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of Bunker Hill Mining Corp., (the "Company") on Form 10-K for the period ending December 31, 2021, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Sam Ash, Chief Executive Officer, President and Principal Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Bunker Hill Mining Corp.

/s/ Sam Ash DATE:April 17, 2023
Sam Ash, Chief Executive Officer and President

A signed original of this written statement required by Section 906 has been provided to Bunker Hill Mining Corp. and will be retained by Bunker Hill Mining Corp. to be furnished to the Securities and Exchange Commission or its staff upon request.

Exhibit 32.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Bunker Hill Mining Corp., (the "Company") on Form 10-K for the period ending December 31, 2021, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, David Wiens, Chief Financial Officer and Principal Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Bunker Hill Mining Corp.

/s/ David Wiens DATE:April 17, 2023
David Wiens, Chief Financial Officer

A signed original of this written statement required by Section 906 has been provided to Bunker Hill Mining Corp. and will be retained by Bunker Hill Mining Corp. to be furnished to the Securities and Exchange Commission or its staff upon request.

Exhibit 95.1

MINE SAFETY DISCLOSURE

Pursuant to Section 1503(a) of the recently enacted Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"), issuers that are operators, or that have a subsidiary that is an operator, of a coal or other mine in the United States are required to disclose in their periodic reports filed with the SEC information regarding specified health and safety violations, orders and citations, issued under the Federal Mine Safety and Health Act of 1977 (the "Mine Act") by the Mine Safety and Health Administration (the "MSHA"), as well as related assessments and legal actions, and mining-related fatalities.

The following table provides information for the year ended December 31, 2022.

Mine	Mine Act §104 Violations (1)	Mine Act §104(b) Orders (2)	Mine Act §104(d) Citations and Orders (3)	Mine Act §110(b)(2) Violations (4)	Mine Act §107(a) Orders (5)	Proposed Assessments from MSHA (In dollars $)	Mining Related Fatalities	Mine Act §104(e) Notice (yes/no) (6)	Pending Legal Action before Federal Mine Safety and Health Review Commission (yes/no)
Bunker Hill Mine	10	0	0	0	0	1,330	0	No	No

(1) The total number of violations received from MSHA under §104 of the Mine Act, which includes citations for health or safety standards that could significantly and substantially contribute to a serious injury if left unabated.

(2) The total number of orders issued by MSHA under §104(b) of the Mine Act, which represents a failure to abate a citation under §104(a) within the period of time prescribed by MSHA.

(3) The total number of citations and orders issued by MSHA under §104(d) of the Mine Act for unwarrantable failure to comply with mandatory health or safety standards.

(4) The total number of flagrant violations issued by MSHA under §110(b)(2) of the Mine Act.

(5) The total number of orders issued by MSHA under §107(a) of the Mine Act for situations in which MSHA determined an imminent danger existed.

(6) A written notice from the MSHA regarding a pattern of violations, or a potential to have such pattern under §104(e) of the Mine Act.

Exhibit 96.1

S-K 1300 TECHNICAL REPORT SUMMARY

BUNKER HILL MINE PRE-FEASIBILITY STUDY

COEUR D’ALENE MINING DISTRICT

SHOSHONE COUNTY, IDAHO, USA

SIGNATURE DATE APRIL 14, 2023

EFFECTIVE DATE: AUGUST 29, 2022

PREPARED FOR BUNKER HILL MINING CORP.

PREPARED BY

QUALIFIED PERSONS:

Resource Development Associates, Inc.
10262 Willowbridge Way

Minetech, USA, LLC
129 Denali Ln

Highlands Ranch, CO 80126
303-717-3672

Butte, MT 59701
775-397-4862

YaKum Consulting Inc.
910A Logan Ave., Toronto, Ontario M4K 3E4 Canada
+1 (416) 616-9669

DATE AND SIGNATURE PAGE

This report is effective as of August 29, 2022 for S-K 1300 purposes:

Signed and Dated April 14, 2023

(signed/sealed) *Resource Development Associates Inc.*

(signed/sealed) Minetech, USA, LLC

(signed/sealed)

YaKum Consulting Inc.

TABLE OF CONTENTS

Tables

Figures

TABLE OF ABBREVIATIONS

Term	Description
Ag	Silver
AGP	Acid Generating Potential
AIPG	American Institute of Professional Geologists
AISC	All-in Sustaining Costs
AMD	Acid Mine Drainage
Au	Gold
BHMC	Bunker Hill Mining Corp.
BLP	Bunker Hill Limited Partnership
CAPEX	Capital Expenditure
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act or United States Superfund
cfm	Cubic Feet per Minute
CIA	Central Impoundment Area
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
CPG	Certified Professional Geologist
CTP	Central Treatment Plant
Cu	Copper
CWA	Clean Water Act
DOJ	US Department of Justice
EBIDTA	Earnings before Income Tax, Depreciation and Amortization
EHC	Environmental Health Code
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ESHIA	Environmental, Social and Health Impact Assessment
GRI	Global Reporting Initiative
ICOLD	International Commission on Large Dams
ICP	Inductively Coupled Plasma
IDEQ	Idaho Department of Environmental Quality
IDL	Idaho Department of Lands
IDWR	Idaho Department of Water Resources
IPDES	Idaho Pollutant Discharge Elimination System
k	Thousand (x000)
kt	Kilo tons
LHOS	Long-hole Open Stoping
LOM	Life of Mine

TABLE OF ABBREVIATIONS

Term	Description
MIBC	Methyl Isobutyl Carbinol
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
NSR	Net Smelter Return
OPEX	Operating Expenditure
Pb	Lead
PEA	Preliminary Economic Assessment
PFS	Pre-Feasibility Study
PMC	Placer Mining Corporation
Property	Bunker Hill Mine
QA/QC	Quality Assurance/Quality Control
QP(s)	Qualified Person(s)
RC or RVC	Reverse Circulation
RDA	Resource Development Associates
Rdi	Resource Development Inc
ROD	Record of Decision
RQD	Rock Quality Designation
SME	Society for Mining, Metallurgy and Exploration
SVMC	Silver Valley Mining Corporation
t	Short Ton
Tonne	Metric Tonne
tpd	Short Tons per Day
UAO	Unilateral Administrative Order
USGS	United States Geological Survey
Zn	Zinc

1 SUMMARY

This report entitled "S-K 1300 Technical Report Summary, Bunker Hill Mine Pre-Feasibility Study, Coeur D' Alene Mining District, Shoshone County, Idaho, USA" , (the "TRS"), describes the mining and processing operations at the Bunker Hill Mine ("Bunker" or "Bunker Hill" or "the Project" or "the Property") located near the town of Kellogg Idaho for Bunker Hill Mining Corp. ("BHMC" or the "Company"). This report considers a processing approach at Bunker where Pb, Ag and Zn mineralization is mined underground. Mineralized material will be conventionally milled and then concentrated by flotation of lead and silver (Pb/Ag) followed by flotation of zinc (Zn). Metal rich concentrates will then be sold to smelters in North America or overseas. Mill tailings will be deposited underground in the historic mining voids located throughout the Project.

Table 1-1 lists the Mineral Resource Estimate, exclusive of reserves, for Bunker. Mineral Resources are classified according to §229.1302(d)(1)(iii)(A) (Item 1302(d)(1)(iii)(A) of Regulation S-K). Mineral Resources are geologically constrained and defined at economic cutoff grades that demonstrate reasonable prospects of eventual economic extraction. Mineral resources are not mineral reserves and do not meet the threshold for reserve modifying factors, such as economic viability, that would allow for conversion to mineral reserves. There is no certainty that any part of the mineral resources estimated will be converted to mineral reserves.

1.1 RESOURCE ESTIMATES

Industry accepted grade estimation techniques were used to develop global mineralization block models for the Newgard, Quill and UTZ zones. Table 1-1 summarizes the Bunker Hill Mineral Resource Estimate, exclusive of Mineral Reserves, classified in accordance with §229.1302(d)(1)(iii)(A) (Item 1302(d)(1)(iii)(A) of Regulation S-K) for the Project. Reasonable prospects of eventual economic extraction assume underground mining, mill processing and flotation of Pb and Zn concentrates. Mineral resource estimates are reported at an NSR cutoff of $70 per ton.

Net smelter return (NSR) is defined as the return from sales of concentrates, expressed in US$/t, i.e.: NSR = (Contained metal) * (Metallurgical recoveries) * (Metal Payability %) * (Metal prices) – (Treatment, refining, transport and other selling costs). NSR values are estimated using updated using metallurgical recoveries of 85.1%, 84.2% and 88.2% for Zn, Ag and Pb respectively, and concentrate grades of 58% Zn in zinc concentrate, and 67% Pb and 12.13 oz/ton Ag in lead concentrate.

Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resources will be converted to Mineral Reserves. Mineral Resources are reported exclusive of Mineral Reserves. The Mineral Reserves described in this report represent Mineral Resources that were evaluated with modifying factors related to underground mining. Numbers in Table 1 1 have been rounded to reflect the accuracy of the estimate and may not sum due to rounding.

Table 1-1 Bunker Hill Mine Mineral Resource Estimate, (Exclusive of Mineral Reserves), August 29, 2022– Resource Development Associates Inc.

Classification	Ton (x1,000)	NSR ($/Ton)	Ag Oz/Ton	Ag Oz (x1,000)	Pb %	Pb Lbs. (x1,000)	Zn %	Zn Lbs. (x1,000)
Measured (M)	2,374	$ 119.60	1.01	2,404	2.46	116,574	5.37	254,811
Indicated (I)	4,662	$ 119.81	1.00	4,657	2.37	221,295	5.48	510,964
Total M & I	**7,036**	**$ 119.74**	**1.00**	**7,061**	**2.40**	**337,869**	**5.44**	**765,774**
Inferred	6,943	$ 126.28	1.52	10,532	2.87	398,901	4.96	688,482

Numbers in the table have been rounded to reflect the accuracy of the estimate and may not sum up due to rounding. Mineral resources are reported excusive of mineral reserves. The reserves disclosed in the report represent measured mineral resources and indicated resources that were evaluated with modifying factors related to underground mining.

1.2 MINERAL RESERVE ESTIMATE

Mineral Reserves were classified in accordance with §229.1302(e)(2) (Item 1302(e)(2) of Regulation S-K). Mineral Reserves are estimated at an NSR value cutoff of $80/short ton at the reference point of salable mill concentrates with an effective date of August 29, 2022.

Table 1 2 Bunker Hill Mineral Reserves Estimate, August 29, 2022 - Minetech, USA, LLC

Area	Description	Tons (x1,000)	Zn (%)	Pb (%)	Ag (opt)	Contained Ag (koz)	Contained Zn (klbs)	Contained Pb (klbs)	NSR (US$/st)
Newgard and Quill	Probable	3,111	5.87%	2.56%	1.12	3,492	365,118	159,326	133.53
	Plan Dilution	95	-	-	-	-	-	-	-
	Unplanned Dilution	156	-	-	-	-	-	-	-
UTZ	Probable	89	3.93%	3.74%	1.35	95	7,002	6,658	122.66
	Plan Dilution	1	-	-	-	-	-	-	-
	Unplanned Dilution	4			-	-	-	-	-
Total	Probable	3,200	5.81%	2.59%	1.12	3,587	372,120	165,984	133.23
	Plan Dilution	96	-	-	-	-	-	-	-
	Unplanned Dilution	160	-	-	-	-	-	-	-
	Total Plan	***3,360***	***5.30%***	***2.40%***	***1.02***	***3,587***	***186,060***	***82,992***	***126.88***

(1) Plan Dilution is zero grade waste included in the designed stope shapes and probable tonnages.
(2) Unplanned dilution is 5% external dilution added at zero grade.
(3) Mineral Reserves stated are inclusive of all above mentioned dilutions and are factored for ore loss due to mining activities.
(4) Net smelter return (NSR) is defined as the return from sales of concentrates, expressed in US$/t, i.e.: NSR = (Contained metal) * (Metallurgical recoveries) * (Metal Payability %) * (Metal prices) – (Treatment, refining, transport and other selling costs). For the Mineral Reserve Estimate, NSR values were calculated using updated open-

cycle metallurgical results including recoveries of 85.1%, 84.2% and 88.2% for Zn, Ag and Pb respectively, and concentrate grades of 58% Zn in zinc concentrate, and 67% Pb and 12.13 oz/ton Ag in lead concentrate.
(5) Mineral Reserves are estimated using a zinc price of $1.20 per pound, silver price of $20.00 per ounce, and lead price of $1.00 per pound.
(6) Historic mining voids, stopes and development drifting have been depleted from the Mineral Reserve Estimate.
(7) Totals may not add up due to rounding.

1.3 PROJECT ECONOMICS

A summary of the Pre-Feasibility level projected financial performance for the Project is listed in Table 1-2. Sensitivities are summarized in Table 1-3.

Table 1-3 Estimated Bunker Hill Production for Life of Mine

	Life of Mine (LOM) Totals/Average
Metal Prices	
Zinc ($/lb)	1.5
Lead ($/lb)	0.95
Silver ($/oz)	22
Mine plan	
Total ore production (kt)	**3,360**
*Average annual ore production	
Average zinc grade (%)	**5.50%**
Average lead grade (%)	**2.50%**
Average silver grade (oz/t)	**1.1**
Metal Production	
Zinc concentrate (t)	**272,995**
Lead concentrate (t)	**109,251**
Zn grade - Zn conc (%)	**58.00%**
Pb grade - Pb conc (%)	**67.00%**
Ag grade - Pb conc (oz/t)	**27.6**
Zn prod. - Zn conc (klbs)	**316,674**
Pb prod. - Pb conc (klbs)	**146,397**
Ag prod. - Pb conc (koz)	**3,020**
Zinc eq produced (klbs)	**475,460**
Cost metrics	
Mining ($/t)	**37**
Processing ($/t)	**21**
G&A ($/t)	**9**
Opex - total ($/t)	**67**
Sustaining capex ($/t)	**21**
Cash costs: by-prod. ($/lb Zn payable)	**0.5**
AISC: by-prod. ($/lb Zn payable)	**0.77**
FCF & Valuation ($000's)	
Zinc revenue	**338,368**
Lead revenue	**129,595**
Silver revenue	**61,337**
Gross revenue	**529,300**
TC - Zinc conc	**-69,105**
TC - Lead conc	**-18,919**
RC - Lead conc	**-3,535**
Land freight	**-11,002**
Net smelter return	**426,739**
Mining costs	**-121,772**
Processing costs	**-69,346**
G&A costs	**-28,496**
EBITDA	**207,126**
Sustaining capex	**-70,450**
Initial capex	**-54,853**
Pre-tax free cash flow	**94,103**
Taxes	**-7,884**
Free cash flow	**86,219**
NPV (5%)	**62,826**
NPV (8%)	**51,813**
IRR (%)	**36.00%**
Payback (years)	**2.1**

Table 1-2 includes zinc produced from zinc concentrate, lead and silver produced from lead concentrate.

Life of mine ("LOM") includes initial capital expenditures.

Note: Cash Cost includes mining, processing, G&A, smelter charges and freight. Mine plan was designed on a net smelter return (NSR) value of 80 ($/t). NSR was calculated by the formula: (Contained metal) * (Metallurgical recoveries) * (Metal Payability %) * (Metal prices) – (Treatment, refining, transport and other selling costs). Mineralized portions of the mine plan external to the Quill, Newgard and UTZ zones were calculated using a zinc equivalent cut off of 5% calculated using the formula: Zn price ($/lb) + (Pb grade (%) * (Zn price ($/lb) / (Pb price ($/lb) + (Ag grade (oz/t) * (Zn price ($/lb) / (ag price ($/toz) * (toz/1lb)).

The economic analysis is based on an 1,800 stpd mine plan utilizing cut-and-fill and long hole open stoping with backfill. Metal recoveries are based on current metallurgical test work and historical mill operational data. Silver will be recovered in the lead concentrate and any silver reporting to the zinc concentrate is considered non-payable. This is consistent with typical smelter treatment charges and agreements. Projected metal prices of $1.20/lb zinc, $1.00/lb lead and $20.00/t-oz silver were used to calculate revenues for the full life of mine. Escalation was not applied to operating or capital costs other than a slight operating cost increase later in the mine life to reflect operating from the deeper-mine levels.

An initial capital investment of $55 million (including variable contingency) is required to restart the mine. Bunker Hill is projected to generate approximately $25 million of annual average free cash flow over an initial 5-year mine life based on the current Probable reserves. It will produce over 316 million pounds of zinc, 146 million pounds of lead, and 3 million ounces of silver at an all-in sustaining cost ("AISC") of $0.77 per payable pound of zinc (net of by-products).

The project is expected to generate pre-tax free cash flow of $94 million over its 5-year mine life and $86 million on an after-tax basis. The Company's goal is to significantly increase the free cash flow by multiple optimization work streams including mill and process throughput and recovery, resource expansion and exploration.

Table 1-4 Economic Sensitivity to Zinc Price, Opex and Capex

Metal Prices							
			Zinc Price ($/lb)				
			0.2	0.1		0.1	0.2
NPV (8%) ($M)	Lead Price ($/lb)	0.2	7	13	32	51	68
		0.1	4	23	42	60	78
			14	33	**52**	69	87
		0.1	24	43	61	78	96
		0.2	34	53	70	87	105
			Zinc Price ($/lb)				
			0.2	0.1		0.1	0.2
IRR (%)	Lead Price ($/lb)	0.2	4%	16%	26%	35%	44%
		0.1	10%	21%	31%	40%	49%
			16%	26%	**36%**	45%	53%
		0.1	22%	32%	41%	49%	57%
		0.2	27%	37%	45%	54%	62%

Operating & Capital Costs						
		Operating Costs (+/- %)				
		20%	10%		10%	20%
Total Capital Costs (+/-)%	20%	102	87	72	56	40
	10%	92	77	62	46	30
		82	67	**52**	36	19
	10%	72	57	42	25	9
	20%	62	47	31	15	1
		Operating Costs (+/- %)				
		20%	10%		10%	20%
Total Capital Costs (+/-)%	20%	71%	62%	53%	44%	34%
	10%	60%	52%	44%	35%	26%
		51%	44%	**36%**	28%	19%
	10%	44%	37%	29%	21%	13%
	20%	37%	30%	23%	15%	7%

On January 25, 2022, BHMC signed a memorandum of understanding (MOU) with Teck Resources Limited (Teck) for the purchase of the Pend Oreille (PO) process plant. The final Asset Sale and Purchase Agreement was signed on March 30, 2022 for the purchase of the PO mill and process plant for a Purchase Price of 10,416,667 units of unregistered securities of Bunker at a unit price of $0.30 CAD.

1.4 PROPERTY DESCRIPTIONS AND OWNERSHIP

Bunker Hill Mine is located in the cities of Kellogg and Wardner of Shoshone County, Idaho. The mine is 100% owned by Silver Valley Metals Corporation ("SVMC"), a wholly owned subsidiary of BHMC. Bunker was purchased from Placer Mining Corporation ("PMC") on January 7, 2022. The Property consists of four surface parcels, 34 platted parcels with surface rights and 108 mineral parcels without surface rights all together encompassing a total of over 5,802 acres. Surface rights to the mineral parcels lies entirely with private owners, primarily timber harvesting companies. The property is traversed by numerous roads, both maintained and non-maintained, used for timber harvesting. Both portals of the mine (Kellogg Tunnel and the Russell Tunnel in Wardner) are accessible by maintained roadways.

1.5 GEOLOGY AND MINERALIZATION

The Northern Idaho Panhandle Region in which the Bunker Hill Property is located is underlain by the Middle Proterozoic-aged Belt-Purcell Supergroup of fine-grained, dominantly siliciclastic sedimentary rocks which extends from western Montana (locally named the Belt Supergroup) to southern British Columbia (Locally named the Purcell Supergroup) and is collectively over 23,000 feet in total stratigraphic thickness.

Mineralization at the Bunker Hill Mine is hosted almost exclusively in the Upper Revett formation of the Ravalli Group, a part of the Belt Supergroup of Middle Proterozoic-aged, fine-grained sediments. Geologic mapping and interpretation progressed by leaps and bounds following the recognition of a predictable stratigraphic section at the Bunker Hill Mine and enabled the measurement of specific offsets across major faults, discussed in the following section. From an exploration and mining perspective, there were two critical conclusions from this research: all significant mineralized shoots are hosted in quartzite units where they are cut by vein structures, and the location of the quartzite units can be projected up and down section, and across fault offsets, to target extensions and offsets of known mineralized shoots and veins.

Mineralization at Bunker Hill falls in four categories, described below from oldest to youngest events:

Bluebird Veins (BB): W—NW striking, SW-dipping, variable ratio of sphalerite-pyrite-siderite mineralization. Thick, tabular cores with gradational margins bleeding out along bedding and fractures.

Stringer/Disseminated Zones: Disseminated, fracture controlled and bedding controlled blebs and stringer mineralization associated with Bluebird Structures, commonly as halos to vein-like bodies or as isolated areas where brecciated quartzite beds are intersected by the W-NW structure and fold fabrics.

Galena-Quartz Veins (GQ): E to NE striking, S to SE dipping, quartz-argentiferous galena +/- siderite-sphalerite-chalcopyrite-tetrahedrite veins, sinuous-planar with sharp margins, cross-cut Bluebird Veins.

Hybrid Zones: Formed at intersections where GQ veins cut BB veins, with open space deposition of sulfides and quartz in the vein refraction in quartzite beds, and replacement of siderite in the BB vein structure by argentiferous galena from the GQ Vein.

1.6 ENVIRONMENTAL STUDIES AND PERMITTING

Because the mine is on patented mining claims (privately-owned land), only a limited number of permits are required for mining and milling operations. These relate to: (1) air quality and emissions from crushing, milling and processing, (2) any refurbishment of surface buildings that may require construction permits and (3) deposition of waste and/or tailings on surface, if such a deposition were to occur. All surface crushing and milling operations are planned to occur at the Kellogg side of mining operations. The surface parcels containing the crushing and processing facilities are zoned M-1 for light-industrial use under section 11-4-3 of the Kellogg City Code. All surface facilities are planned as enclosed buildings.

The Bunker Hill Mine is located within the Bunker Hill Superfund site (EPA National Priorities Listing IDD048340921). Cleanup activities have been completed in Operable Unit 2 of the Bunker Hill Superfund Site where the mine is located though water treatment continues at the Central Treatment Plant (CTP) located near Bunker Hill Mine. The CTP is owned by US EPA and is operated by its contractors.

BHMC entered into a Settlement Agreement and Order on Consent with the US Environmental Protection Agency ("US EPA") and the US Department of Justice ("DOJ") on May 14, 2018. Section 9, Paragraph 33 of that agreement stipulates that BHMC must obtain a National Pollutant Discharge Elimination System ("NPDES") permit for effluent discharged by Bunker Hill Mine by May 14, 2023. This obligation exists and the deadline will occur at a point in time where restart activities are planned to occur.

BHMC will initiate a voluntary Environmental, Social and Health Impact Assessment ("ESHIA") for the activities described in this report and for its business model as a whole. This study is projected for completion in 2024 and will conform to ISO, IFC and GRI standards.

1.7 MINERAL PROCESSING

Lead, silver, and zinc production from Bunker began in 1887, lasted 95 years, and included a zinc refinery beginning in 1927. The mine was the largest producer in the Coeur d'Alene Mining District, with a total historical production of 35 M tons (31.75 M tonnes) of mineralization grading 8.76% lead, 3.67% zinc, and 5.49 oz/ton (188.2 g/t) silver. The Bunker Hill Concentrator ran as a differential flotation circuit producing both a lead and zinc concentrate product. Average grades of the concentrate products ran +/-64% Pb, 40 OPT Ag and 5% Zn for the lead concentrate and +/-55% Zn, 3 OPT Ag, and 1% Pb for the zinc concentrate.

In Q3 of 2021 BHMC initiated a metallurgical testing program with Resource Development Inc (RDi). Additional metallurgical studies were undertaken by SGS Canada Inc at Lakefield beginning in Q2 2022 to confirm and expand on the results from the RDi program. Bunker retained the services of YaKum Consulting Inc to oversee the metallurgical and process studies in 2022. Approximately 500kg of material was sent for testing from two panel samples taken from the UTZ portion of the MRE combined into one master composite. The main objectives of the program were to establish a process flowsheet for differential flotation of lead and zinc, as well as simulate plant operations with locked cycle flotation testing to characterize final concentrates for marketing purposes. Details of the program and final accepted values are as follows:

- Head grade assay: 49.7 g/mt Ag, 4.10% Pb, 6.42% Zn
- Work indices: BWi 13.47 kWh/st and Ai 0.6137 indicating medium hardness and very abrasive.

Table 1-5 Metallurgical Testing and Approved Metallurgical Data

	Units	RDi Final Report LCT April 2022	YaKum Confirmed Model May 2022
Concentrate Mass Pull	%	15.8	15.8
Recovery to Zn Con (Zn)	%	85.1	85.1
Recovery to Pb Con (Pb)	%	88.2	88.2
Recovery to Pb Con (Ag)	%	84.2	84.2
Zn Concentrate (Zn)	%	57.36	58
Pb Concentrate (Pb)	%	46.25	67
Pb Concentrate (Ag)	g/mt	416	416

1.8 MINING METHODS AND MINE ENGINEERING

Long-hole stoping with fill (LHOS), cut-and-fill (CF) and possibly room-and-pillar mining with fill are the only methods viable for sustained operations at the Bunker Hill Mine today. The current mine plan utilized both LHOS for the Quill-Newgard portion of the MRE and CF for the UTZ portion. LHOS are driven transverse to overall trend of mineralization with overall stope dimensions of 20 ft wide by 50 ft high, accessed by both a top and bottom lateral drift. Internal mine development is planned for 100% rubber-tire vehicle access. A central mine ramp will provide access to various sublevels for mining activities. Mineralized material will be brought out of the mine at the 5-level and subsequently transported overland to the crushing and process facility at the 9-level Kellogg yard.

Waste development muck will be transported to internal, underground void spaces, or brought to surface for crushing and use as industrial base on the mine property. Upon the completion of mining, open stopes will be filled with an engineered hydraulic (paste) backfill. The paste backfill plant will have the tailings thickening and filtration equipment located in the Kellogg yard, adjacent to the mill/process building. The paste mixing and pumping station will be located at the mine yard at Wardner. Filtered tailings cake material from the filtration plant will be backhauled up to the paste mixing and pumping station at Wardner from Kellogg on the return trip by the surface ore haul trucks.

Mine design and Mineral Reserve estimates have been completed to a level appropriate for pre-feasibility studies. The Mineral Reserve estimate stated herein is in accordance with §229.1302(e)(2) (Item 1302(e)(2) of Regulation S-K). As such, the Mineral Reserves are based on the conversion of Measured and Indicated Mineral Resources.

Mine designs were created in Maptek Vulcan™ software to define access and mining of the stope shapes defined by the Stope Optimizer module within Vulcan™. The defined stope shapes and development excavations were scheduled to produce the basis for this economic analysis.

1.9 RECOVERY METHODS

Historical and on-going current test work shows that the investigated sequential flotation process can produce marketable-grade Pb/Ag and Zn concentrates. Mineral processing and recovery operations will be performed on surface at the Kellogg mine yard. New construction on surface will house the primary grinding and flotation circuits, secondary crushing and final concentrate storage. ROM material will initially be delivered to the surface stockpile via overland haulage from the Wardner mine access. A flow sheet was developed from locked cycle flotation testing. ROM material is delivered to the Kellogg yard stockpile from overland haulage out of the mine at the Wardner portal. Two stages of primary crushing will reduce ROM material to 0.5” through two cone crushers. Material will then be screened and sent to the fine ore bin. The fine ore bin will feed two ball mills for primary grinding down to ~75 micron. Flotation begins with a lead rougher, the overflow of which is separated through a cyclone and coarse fraction sent to a re-grind circuit before joining the undersized overflow though three stages of cleaning. Underflow from the lead rougher is sent to a zinc rougher circuit and on to three stages of cleaner cells. The differential flotation circuit will produce both a lead and silver concentrate, as well as a zinc concentrate. Tailings material will be sent to a thickener and from there on to a filtration plant for use in the paste backfill system.

Concentrates will be stored in a building at the Kellogg yard for transportation to the smelter.

1.10 CURRENT EXPLORATION AND DEVELOPMENT

BHMC has a rare exploration opportunity available at the Mine and has embarked on a new path to fully maximize the potential. A treasure trove of geologic and production data representing 70+ years of mine operations has been organized and preserved in good condition in the mine office since the shutdown in the early 1980s.

From this the company was able to build a 3D digital model of the mine workings and 3D surfaces and solids of important geologic features. To add to this, historic drill core lithology logs and assay data (>2900 holes) were entered into a database and imported with the other data into Maptek Vulcan 3D software.

Continued exploration drilling from both surface and underground over a 2-year period worked to further develop extensions of previously mined structures as well as identify mineralized zones previously unknown to mine operators.

During the summer of 2021, BHMC conducted a 3DIP surface geophysical survey over the southwestern portion of the land package with the goal of identifying future areas of interest outside of the historically worked mining footprint. Response characteristics of mineralized material were inferenced from previous geophysical investigations performed at Bunker Hill and used to guide target assessment on the 2021 program. Additional review from 3rd party groups is required for detailed analysis of the program results.

1.11 CONCLUSIONS

Mineral Reserves are sufficient to warrant the proposed 1,800 stpd underground mine utilizing LHOS and CF mining methods and conventional mining equipment. Mineral processing will take place utilizing a primary and secondary stage of crushing, primary and secondary stage of grinding and differential flotation circuits to produce both lead/silver and zinc concentrate products. Generalized infrastructure arrangements were used to develop the capital and operational costs associated with their respective activities. Mining and development costs were developed from first-principals engineering, along with vendor and contractor quotations where possible.

Pre-Feasibility level analyses demonstrate that the project has strong economic viability at the estimated metal prices and costs. Risk analyses demonstrate economic favorability at both decreased metal prices and increased costs as outlined in the sensitivities analysis of this report.

1.12 RECOMMENDATIONS

Continued analysis and interpretation of the geophysical survey results should aid to guide future exploration activities outside of historical mine working areas. Additional exploration drilling with the advancement of underground mine development is also advised due to the proximity of future development to under-explored areas of historical workings. Continued digitization and interpretation of historical mapping and research will aid to guide future underground and surface exploration activities.

Completion of issued for construction (IFC) level drawings for the mineral processing facilities is recommended.

Completion of IFC level engineering drawings related to the paste backfill plant are recommended. Final tails product material generated from additional metallurgical testing will work to optimize binder compositions and have the potential to reduce backfill OPEX costs.

Additional geotechnical studies are recommended with the advancement of underground development. Continued geotechnical diamond drilling associated with future resource delineation and exploration drilling activities will provide a better sample set for rock strength testing and geotechnical logging. Future underground development will also allow for the investigation of previously mined areas and association of historical span allowances based on previous ground support methods.

Additional resource delineation and conversion drilling and mine block modeling should continue to increase the conversion of Inferred to Indicated Resources.

Table 1-7 Proposed Budget for Project Advancement

Activity	Amount

Geophysical Interpretation and Additional Geophysics	$	0.05M
Environmental Studies	$	0.03M
Geotechnical Studies	$	0.15M
Mill and Process Plant Engineering	$	1.70M
Hydraulic Backfill and Tailing Placement Engineering	$	0.50M
Total Recommended Budget	**$**	**2.43M**

2 INTRODUCTION

2.1 OVERVIEW

BHMC, at the request of Mr. Sam Ash, President and CEO of BHMC, a public company trading on the Canadian Securities Exchange (CSE: BNKR) with its corporate office at 82 Richmond Street East, Toronto, Ontario M5C 1P1, retained Resource Development Associates Inc. ("RDA") to complete an independent S-K 1300 Technical Report Summary on the Bunker Hill Property located in the Coeur D'Alene Mining District, Shoshone County, Idaho. This report presents a summary of the results of the pre-feasibility study for the development of underground mining, milling and concentration of silver, lead and zinc at the Bunker Hill Mine, Coeur D' Alene mining district, Shoshone County, Idaho, USA. This report has been prepared in accordance with §229.1300 – 229.1305 (subpart 229.1300 of Regulation S-K).

This report was prepared and compiled by Resource Development Associates Inc. "RDA", YaKum Consulting Inc and Minetech, USA, LLC to perform engineering and design services for the Bunker Hill mine (the "Bunker Hill Mine", "Bunker Hill", or "Mine"). BHMC has reported Measured, Indicated and Inferred Mineral Resource estimates for the Project since September 29, 2020. RDA, Yakum Consulting and Minetech have supervised the preparation of this report and take responsibility for the contents of this TRS as detailed in the below Table.

Table 2-1 Primary PFS Contributors

QP/Author Consulting Firm	Site Visit	Chapter/Section Responsibility
Scott E. Wilson, CPG, SME-RM (RDA)	September 22 2021	1-9, 11, 16-17, 20-25
Robert H. Todd, P.E. (Minetech)	September, 2022	12-13, 15, 18-19
Peter Kondos, Ph.D. (YaKum)	N/A	10, 14

BHMC has acquired the rights to title and purchased the Property from the previous owners, PMC. The Bunker Hill Mine is a well-developed underground mining operation that ceased production in 1991. At cessation of mining, the Project contained mineralization that had been developed but not exploited. BHMC is implementing a plan to bring this brownfields project back into production as a competitive mining operation in the Coeur d'Alene Mining District.

The Project is located adjacent to the town of Kellogg Idaho. Mineralization at the Project is related to a large deposit of anomalous lead, zinc and silver mineralization. Silver, lead and zinc were discovered at the Project in 1885. Production records kept annually from 1887 through 1991 show that the mine produced 35.78 million tons of mineralized material with head grades averaging 4.52 opt Ag, 8.76% Pb and 3.67% Zn, containing 161.72 million ounces of Ag, 3.13 million tons of Pb and 1.31 million tons of Zn.

The QPs have worked closely with the Company to follow best practice guidelines with respect to the implementation and execution of the collection of scientific data for the Property.

2.2 QUALIFICATIONS

RDA is independent of BHMC. RDA employees and associates are considered Qualified Persons (QPs) by virtue of their education, experience and memberships in good standing with professional associations. RDA has conducted several site visits of the Property with the most recent visit on September 22, 2021. The most recent site visit was to review the progress on RDA recommended drilling and channel sampling programs. These drilling and sampling campaigns were required by RDA in order to estimate Mineral Resources for the Project.

Minetech, USA, LLC is independent of BHMC. Minetech, USA, LLC employees and associates are considered Qualified Persons (QPs) by virtue of their education, experience and memberships in good standing with professional associations. Minetech, USA, LLC has conducted several site visits of the Property with the most recent visit September 2022. An August 8-12, 2022 site visit was spent on finalizing operating and capital estimates for the decline excavations, operating levels and review other aspects of the mine plan with the project team.

YaKum Consulting Inc. is independent of BHMC. YaKum Consulting Inc. employees and associates are considered Qualified Persons (QPs) by virtue of their education, experience and memberships in good standing with professional associations. YaKum Consulting Inc. has not conducted a site visit to the Property as responsibility for his respective sections required supervision of laboratory work and analysis only. Mr. Kondos has made visits to the Metallurgical Laboratory throughout the testing program detailed in this report.

2.3 CURRENCY AND UNITS OF MEASURE

All dollar amounts in this document are United States Dollars (USD, $) unless otherwise noted.

All ounce units are reported in troy ounces (oz, toz, troy) unless otherwise noted.

All metals prices in this document are in United States Dollars (USD, $) unless otherwise noted.

All ore tonnage, production figures and tonnages reported in financial modeling are in short tons (t) unless noted.

2.4 SOURCES OF INFORMATION

This report is based, in part, on internal company documentation, and maps, published government reports, company letters, memoranda, public disclosure and public information as listed in the References at the conclusion of this report. This report is supplemented by published and available reports provided by the United States Geological Survey ("USGS"), the Idaho Geological Survey, United States Bureau of Land Management and the United States Public Land Survey. Bunker Hill has purchased a majority of the mill and process equipment and several pieces of underground equipment. Budgetary capital equipment quotes were solicited for other outstanding pieces of major equipment. Mine supplies and material costs are from current delivered costs for mining activities or recent vendor quotations. Labor costs are those currently charged by the operator for work in support of mine maintenance, driving of the Newgard ramp and drilling contractor support. YaKum Consulting Inc was responsible for the processing and metallurgical testing. Patterson & Cooke North America provided the tailings and backfill engineering and capital estimates; Barr Engineering provided the milling and process design, capital and operating costs in conjunction with Bunker Hills management team. Tax analysis was performed by Mining Tax Plan, LLC in Colorado. Golder and Associates USA, Inc. toured the property and provided preliminary geotechnical opinions. The reports and documents listed in sections 24 and 25 of this report were used in support of preparation of this report. Selections from reports authored by other consultants may also have been used, quoted or summarized and are delineated where applicable.

2.5 DECLARATION

As of the effective date of this report, the Consulting firms are not aware of any known litigation potentially affecting the Bunker Hill Mine. The consulting forms did not verify the legality or terms of any underlying agreement(s) that may exist concerning the permits, royalties or other agreement(s) between third parties.

The results of this report are not dependent upon nay prior agreements concerning the conclusions to be reached, nor are there any undisclosed understandings concerning any future business dealings between BHMC and the consulting firms. The consulting firms are being paid a fee for their work in accordance with the normal professional consulting practice.

The opinions contained herein are based on information collected throughout the course of the investigations by the consulting firms, which in turn reflect various technical and economic conditions at the time of writing. Given the nature of the mining business, these conditions can change significantly over relatively short periods of time. Consequently, actual results can be significantly more or less favorable.

Table 2-2 Abbreviations found throughout the report

Term	Description
Ag	Silver
AGP	Acid Generating Potential
AIPG	American Institute of Professional Geologists
AISC	All-in Sustaining Costs
AMD	Acid Mine Drainage
Au	Gold
BHMC	Bunker Hill Mining Corp.
BLP	Bunker Hill Limited Partnership
CAPEX	Capital Expenditure
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act or United States Superfund
cfm	Cubic Feet per Minute
CIA	Central Impoundment Area
CIM	Canadian Institute of Mining, Metallurgy and Petroleum

Term	Description
CPG	Certified Professional Geologist
CTP	Central Treatment Plant
Cu	Copper
CWA	Clean Water Act
DOJ	US Department of Justice
EBIDTA	Earnings before Income Tax, Depreciation and Amortization
EHC	Environmental Health Code
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ESHIA	Environmental, Social and Health Impact Assessment
GRI	Global Reporting Initiative
ICOLD	International Commission on Large Dams
ICP	Inductively Coupled Plasma
IDEQ	Idaho Department of Environmental Quality
IDL	Idaho Department of Lands
IDWR	Idaho Department of Water Resources
IPDES	Idaho Pollutant Discharge Elimination System
k	Thousand (x000)

kt	Kilo tons
LHOS	Long-hole Open Stoping
LOM	Life of Mine
MIBC	Methyl Isobutyl Carbinol
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
NSR	Net Smelter Return
OPEX	Operating Expenditure
Pb	Lead
PEA	Preliminary Economic Assessment
PFS	Pre-Feasibility Study
PMC	Placer Mining Corporation
Property	Bunker Hill Mine
QA/QC	Quality Assurance/Quality Control
QP(s)	Qualified Person(s)
RC or RVC	Reverse Circulation
RDA	Resource Development Associates
Rdi	Resource Development Inc
ROD	Record of Decision
RQD	Rock Quality Designation
SME	Society for Mining, Metallurgy and Exploration
SVMC	Silver Valley Mining Corporation
t	Short Ton
Tonne	Metric Tonne
tpd	Short Tons per Day
UAO	Unilateral Administrative Order
USGS	United States Geological Survey
Zn	Zinc

3 PROPERTY DESCRIPTION AND LOCATION

The Bunker Hill Mine is located in Shoshone County, Idaho with portions of the mine located within the cities of Kellogg and Wardner, Idaho in northwestern USA. The Kellogg Tunnel, which is the main access to the mine, is located at 47.53611°N latitude, 116.1381W longitude. The approximate elevation for the above cited coordinates is 2366 ft. The patented mining claims depicted in Figure 3-1, below, cover an area of 5,802 acres.

On December 15, 2021 BHMC signed a Purchase and Sale Agreement (PSA) with Placer Mining Corporation and both William and Shirley Pangburn to acquire full ownership of the subsequently listed mineral titles in addition to other Surface Rights and Real Property associated with land and structures of the Bunker Hill Mine. BHMC became the owner of Bunker Hill Mine on January 7, 2022.

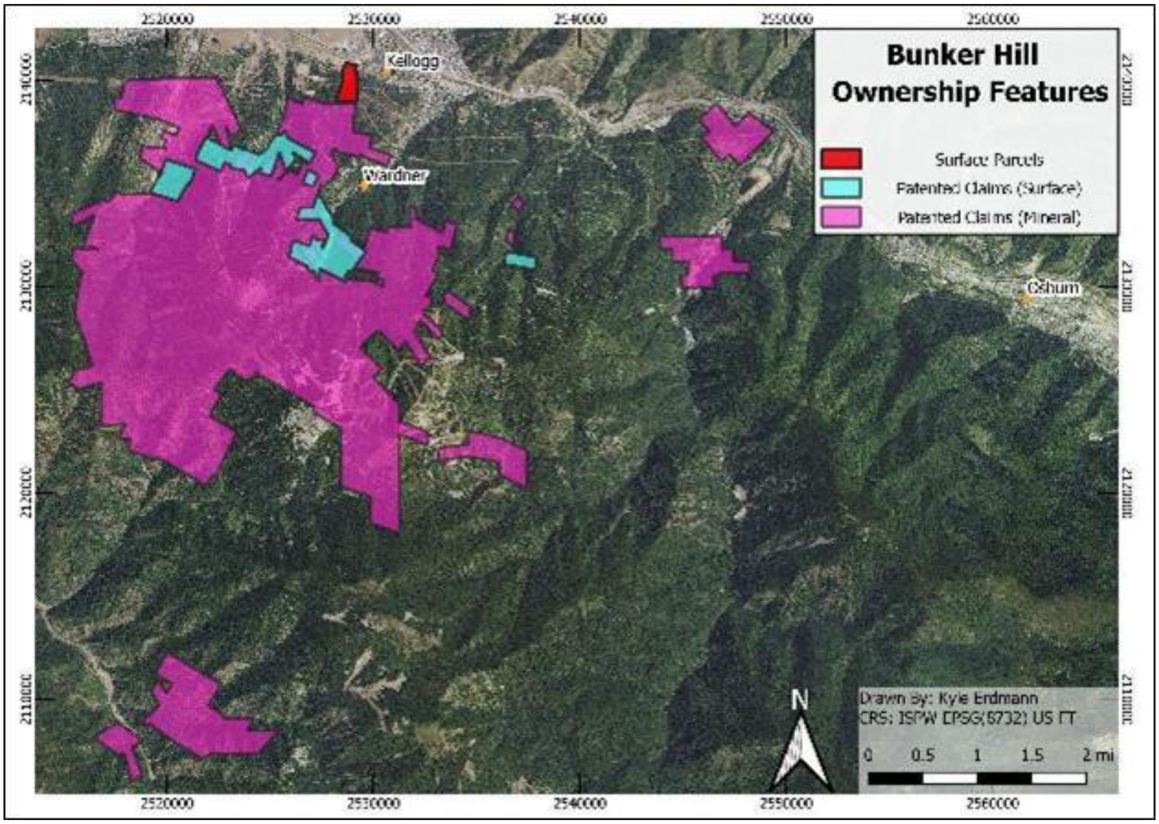


Figure 3-1 Property Map of Bunker Hill Mine Land Ownership

From its early days in the 1890s and through two World Wars, the Bunker Hill Company ("BMC") operated as an independent and well-known mining and smelting company. BMC was listed on the New York Stock Exchange. On June 1, 1968, Bunker Hill became a wholly owned subsidiary of Gulf Resources & Chemical Corp.

Growing public concern with the environment in the 1970s compelled Bunker Hill to spend large sums on plant improvements in order to comply with newly enacted federal air and water pollution laws. The Company also made major efforts to reclaim surrounding hillsides which had been impacted by the effects of decades of airborne smelter effluents and timbering for mining purposes.

Ultimately the combination of high costs of environmental compliance and declines in metal prices in the early 1980s led to the decision by Gulf Resources in August 1981 to cease operations at Bunker Hill and to sell the mine. In 1982, the company was sold to the Bunker Limited Partnership ("BLP"). The principal owners of BLP were Harry Magnuson, Duane Hagadone, Jack Kendrick and Simplot Development Corporation. Simplot Development Corporation sold its share of the partnership in 1987.

The mine was reopened from 1988 to 1990 by BLP during which time exploration, resource definition, mine development and small-scale production occurred. A decline in metals prices in the early 1990s led BLP to close the mine in January of 1991. Shortly thereafter BLP filed for bankruptcy.

On May 1, 1992, the Bunker Hill Mine was sold to PMC. The sale related to Bunker Hill Mine only. Pintlar, Inc., a subsidiary of Gulf Resources & Chemical Corporation, remained responsible for the environmental cleanup of the portion of the Bunker Hill Superfund Site related to the smelter site. Title to all patented mining claims included in the transaction was transferred from Bunker Hill Mining Corp. (U.S.) Inc. by Warranty Deed in 1992. The sale of the property was properly approved of by the U.S. Trustee and U.S. Bankruptcy Court.

BHMC's land package purchased from PMC, includes a mix of patented mining claims and ownership of surface parcels. The transaction also includes certain parcels of fee property which includes mineral and surface rights but are not patented mining claims. Mining claims and fee properties are located in Townships 47, 48 North, Range 2 East, Townships 47, 48 North, Range 3 East, Boise Meridian, Shoshone County, Idaho. The patented mining claims described by Figure 3-1, above, cover an area of 5,802.132 acres. BHMC now owns all claims that lie within the tax parcels and fee parcels shown in Figure 3-1.

3.1.1 BUNKER HILL MINE MINERAL TENURE

On January 7, 2022, BHMC, through its wholly owned subsidiary Silver Valley Metals Corp. ("SVMC"), purchased the Bunker Hill Mine from PMC and other private landowners. The property consists of a combination of patented mining claims with surface rights and mineral rights ("Surface Parcels"), patented mining claims without surface ownership rights ("Mineral Parcels" as more particularly described below), and additional land not patented as mining claims under the General Mining Act of 1872 ("Platted Parcels"). The Platted Parcels and Surface Parcels are more particularly described below.

At the time of SVMC's purchase of the Bunker Hill Mine, SVMC obtained an Owner's Policy of Title Insurance ("Owner's Policy") and a Mineral Guarantee ("Mineral Guarantee") from First American Title Company in Kellogg, Idaho (the "Title Company") through Old Republic National Title Insurance Company.

The Owner's Policy insures title to the Surface Parcels and Platted Parcels is vested with SVMC, subject to the exclusions, exceptions, and conditions to coverage listed therein, with an amount of insurance of up to $7,700,000. Subject to these limitations, the Owner's Policy insures against loss or damage sustained by SVMC by reason of "Covered Risks," which include (among other things) any defect in, lien or encumbrance on the title to the Surface Parcels or Platted Parcels which is disclosed in a Public Record (as defined therein) as of the date of the policy and not otherwise excluded/excepted from coverage.

The Mineral Guarantee insures title to the surface of the Mineral Parcels, which is vested in owners other than SVMC, subject to the exceptions to coverage listed therein, in an amount of up to $4,000. The Mineral Guarantee provides information on the severance of the mineral estate from the surface rights and insures, subject to the liability exclusions, limitations, conditions, and stipulations set forth therein, against actual loss, not exceeding the liability amount, which SVMC shall sustain by reason of any incorrectness in the title to the surface of the Mineral Parcels. Research and records obtained through the Mineral Guarantee were used to determine the title owner of the Mineral Parcels.

SVMC obtained a title opinion from the law firm of Lyons O'Dowd, PLLC (the "Firm"). The Firm reviewed and relied upon the commitment for title insurance (the "Title Commitment") provided by the Title Company pertaining to the Surface Parcels and Platted Parcels and concluded that, as of the date of the opinion, PMC and the other private sellers had good and merchantable title to the Surface Parcels and Platted Parcels, subject to the qualifications, exceptions, reservations, assumptions, limitations and disclaimers identified in the Firm's opinion, the Title Commitment, and the Mineral Guarantee.

With respect to the Mineral Parcels, the Firm reviewed and relied upon the information included in the Mineral Guarantee and, as of the date of the opinion, provided a limited opinion that PMC had good and merchantable title to the Mineral Parcels, subject to the qualifications, exceptions, reservations, assumptions, limitations and disclaimers contained in the Firm's opinion, the Title Commitment, and the Mineral Guarantee.

Patented mining claims in the USA are described with respect to the Section, Township, and Range system employed throughout the country. The Surface Parcels, Mineral Parcels and Platted Parcels that comprise the Bunker Hill Mine land position are located in Townships 47, 48 North, Range 2 East, Townships 47, 48 North, Range 3 East, Boise Meridian, Shoshone County, Idaho. All the Surface Parcels, Mineral Parcels and Platted Parcels are patented (either through the General Mining Act or another fee-based patent act) and owned by SVMC as outlined herein; therefore, other than annual property taxes assessed by Shoshone County, there are no ongoing maintenance fees that would be paid for maintenance of unpatented mining claims through the Bureau of Land Management. There are no expiration dates associated with SVMC controlled mineral and land tenure, or associated property ownership rights.

DESCRIPTION OF SURFACE PARCELS AND PLATTED PARCELS

PARCEL 1:

Being a tract of land situated in the Northeast ¼ of the Southeast ¼ of Section 1, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho more particularly described as follows:

Beginning at the East ¼ corner of said Section 1, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho marked by a concrete monument and also the point of beginning, thence
South 87°28'34" West 165.92 feet; thence
South 30°34'59" West, 220.96 feet; thence
Along a curve right, radius = 40 feet, the long chord bears South 66°18'09" West, 75.71 feet; thence
North 78°22'26" West, 36.16 feet; thence
South 10°52'21" West, 204.04 feet; thence
North 75°18'39" West, 252.91 feet; thence
South 17°22'44" West, 1124.08 feet; thence
North 87°41'35" East, 1007.62 feet; thence
North 00°12'22" West, 1389.14 feet to the point of beginning.

PARCEL 2:

Being a tract of land lying in the Northeast ¼ and the Southeast ¼ of Section 1, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho and more particularly described as follows:

Beginning at a point from whence the East ¼ corner of Section 1, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho bears South 10°03'11" East, 409.83 feet distant; thence
South 21°46'03" West, 150.17 feet; thence
North 65°43'21" West, 407.49 feet; thence
South 01°10'02" West, 94.54 feet; thence
South 27°17'34" West, 90.00 feet; thence
South 39°32'35" East, 342.19 feet; thence
South 17°00'49" West, 108.69 feet; thence
South 09°45'56" East, 92.08 feet; thence
Along a curve right, radius = 40 feet, the long chord bears North 68°36'01" East, 43.86 feet;
Thence
North 30°34'41" East, 331.46 feet; thence
Along a curve right, radius = 100 feet, the long chord bears North 48°38'04" East, 62.13 feet; thence
Along a curve left, radius = 161 feet, the long chord bears North 16°29'47" East, 198.94 feet; thence
North 31°27'01" West, 84.16 feet to the point of beginning and sometimes referred to as Lot 2, Mine Short Plat No. 1 as shown on the official recorded plat thereof recorded as Instrument No. 350327, records of Shoshone County, State of Idaho.

PARCEL 3:

Being a tract of land situated in the Northeast ¼ of the Southeast ¼ of Section 1, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho more particularly described as follows:

Beginning at a point whence the East ¼ corner of Section 1, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho bears North 59°22’09” East, 395.37 feet distant; thence
Along a curve left, radius = 40 feet, the long chord bears South 15°24’18” West, 27.50 feet; thence
North 78°22’26” West, 36.16 feet; thence
South 10°52’21” West, 204.04 feet; thence
North 75°18’39” West, 252.91 feet; thence
North 02°48’24” West, 383.22 feet; thence
North 31°43’07” East, 271.88 feet; thence
South 39°32’35” East, 342.19 feet; thence
South 17°00’49” West, 108.69 feet; thence
South 09°45’56” East, 92.08 feet to the point of beginning and sometimes referred to as Lot 3 Mine Plant Short Plat No. 1.

PARCEL 4:

Saxon, M.S. 2067 Patented Mining Claim situated in Yreka Mining District in Section 11 & 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 553, records of Shoshone County, State of Idaho.

PARCEL 5:

Link, M.S. 2123 Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 601, records of Shoshone County, State of Idaho.

PARCEL 6:

Spur, M.S. 2124 Patented Mining Claim situated in Yreka Mining District in Sections 11 and 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 48, Deeds, at page 479, records of Shoshone County, State of Idaho.

PARCEL 7:

Spear, M.S. 2496 Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 43, Deeds, at page 49, records of Shoshone County, State of Idaho.

PARCEL 8:

Marion, M.S. 2583 Patented Mining Claim situated in Yreka Mining District in Section 11, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 47, Deeds, at page 196, records of Shoshone County, State of Idaho.

PARCEL 9:

Ben Herr, Kruger and Philippine, M.S. 2599 Patented Mining Claims situated in Yreka Mining District in Sections 12 and 13, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 47, Deeds, at page 27, records of Shoshone County, State of Idaho.

PARCEL 10:

Hough, M.S. 2611 Patented Mining Claim situated in Yreka Mining District in Sections 12 and 13, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 56, Deeds, at page 99, records of Shoshone County, State of Idaho.

PARCEL 11:

California, M.S. 2627 Patented Mining Claim situated in Yreka Mining District in Section 11, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 45, Deeds, at page 503, records of Shoshone County, State of Idaho.

PARCEL 12:

Check, M.S. 2840 Patented Mining Claim situated in Yreka Mining District in Sections 1 and 12, Township 48, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 54, Deeds, at page 465, records of Shoshone County, State of Idaho.

PARCEL 13:

That portion of Florence, M.S. 2862 Patented Mining Claim situated in Yreka Mining District in Section 11, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho and more particularly described in those certain deeds recorded November 30, 1966 as Instrument Nos. 208505 and 208506, records of Shoshone County, State of Idaho. Patent recorded in Book 55, Deeds, at page 585, records of Shoshone County, State of Idaho.

PARCEL 14:

Billy, M.S. 3111 Patented Mining Claim situated in Yreka Mining District in Section 11, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 96, Deeds, at page 398, records of Shoshone County, State of Idaho.

PARCEL 15:

Lucky, M.S. 3470 Patented Mining Claim situated in Yreka Mining District in Section 13, Township 48 North, Range 2 East, B.M., and in Section 18, Township 48 North, Range 3 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 91, Deeds, at page 283, records of Shoshone County, State of Idaho.

PARCEL 16:

Moat, M.S. 3503 Patented Mining Claim situated in Yreka Mining District in Sections 17, Township 48 North, Range 3 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 96, Deeds, at page 356, records of Shoshone County, State of Idaho.

PARCEL 17:

Bunker Hill, M.S. 579 Patented Mining Claim situated in Yreka Mining District in Sections 12 & 13, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 6, Deeds, at page 101, records of Shoshone County, State of Idaho.

PARCEL 18:

Sullivan, M.S. 580 Patented Mining Claim situated in Yreka Mining District in Section 13, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 6, Deeds, at page 190, records of Shoshone County, State of Idaho.

PARCEL 19:

Important Fraction, M.S. 581 Patented Mining Claim situated in Yreka Mining District in Section 13, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 6, Deeds, at page 285, records of Shoshone County, State of Idaho.

PARCEL 20:

Phil Sheridan, M.S. 604 Patented Mining Claim situated in Yreka Mining District in Section 13, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 6, Deeds, at page 281, records of Shoshone County, State of Idaho.

PARCEL 21:

Reed Fraction, M.S. 607 Patented Mining Claim situated in Yreka Mining District in Section 13, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 6, Deeds, at page 246, records of Shoshone County, State of Idaho.

PARCEL 22:

Bunker Hill Millsite, M.S. 608 Patented Millsite Claim situated in Yreka Mining District in Section 13, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 4, Deeds, at page 181, records of Shoshone County, State of Idaho.

PARCEL 23:

Small Hopes, M.S. 609, Amended Patented Mining Claim situated in Yreka Mining District in Section 13, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 6, Deeds, at page 325, records of Shoshone County, State of Idaho.

PARCEL 24:

Bottom Dollar Fraction, M.S. 629 Patented Mining Claim situated in Yreka Mining District in Section 13, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 6, Deeds, at page 252, records of Shoshone County, State of Idaho.

PARCEL 25:

Chestnut Fraction, M.S. 632 Patented Mining Claim situated in Yreka Mining District in Section 13, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 6, Deeds, at page 339, records of Shoshone County, State of Idaho.

PARCEL 26:

Emma & Last Chance Millsite, M.S. 703 Patented Millsite claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 4, Deeds, at page 179, records of Shoshone County, State of Idaho.

PARCEL 27:

Ontario, M.S. 755 Patented Mining Claim situated in Yreka Mining District in Sections 11 & 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 382, records of Shoshone County, State of Idaho.

PARCEL 28:

Carbonate, M.S. 764 Patented Mining Claim situated in Yreka Mining District in Section 11, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 325, records of Shoshone County, State of Idaho.

PARCEL 29:

Silver Casket, M.S. 790 Patented Mining Claim situated in Yreka Mining District in Section 11, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 15, Deeds, at page 25, records of Shoshone County, State of Idaho.

PARCEL 30:

Turkey Buzzard, M.S. 836 Patented Mining Claim situated in Yreka Mining District in Section 13, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in book 6, Deeds, at page 243, records of Shoshone County, State of Idaho.

PARCEL 31:

Snowslide Fraction, M.S. 837 Patented Mining Claim situated in Yreka Mining District in Section 13, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 6, Deeds, at page 249, records of Shoshone County, State of Idaho.

PARCEL 32:

Silver, M.S. 1085 Patented Mining Claim situated in Yreka Mining District in Sections 12 and 13, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 38, Deeds, at page 479, records of Shoshone County, State of Idaho.

PARCEL 33:

Johannesburg, M.S. 1192 Patented Mining Claim situated in Yreka Mining District in Sections 12 & 13, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 232, records of Shoshone County, State of Idaho.

PARCEL 34:

Puritan, M.S. 1328 Amended Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 196, records of Shoshone County, State of Idaho.

PARCEL 35:

No. 5, M.S. 1357 Patented Mining Claim situated in Yreka Mining District in Section 11, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 18, Deeds, at page 234, records of Shoshone County, State of Idaho.

PARCEL 36:

Omaha, M.S. 1409 Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents at page 190, records of Shoshone County, State of Idaho.

PARCEL 37:

Legal Tender, M.S. 1639 Amended Patented Mining Claim situated in Yreka Mining District in Section 11, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 304, records of Shoshone County, State of Idaho.

PARCEL 38:

Triangle Fraction, M.S. 2065 Patented Mining Claim situated in Yreka Mining District in Section 13, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 604, records of Shoshone County, State of Idaho.

PARCEL 39:

A parcel of land situated in the Northwest Quarter of Section 6, Township 48 North, Range 3 East, B.M., Shoshone County, Idaho, and more particularly described as follows:

Using the Bunker Hill Triangulation System Meridian and coordinates and beginning at Corner No. 1, a point identical with the West Quarter Corner of said Section 6 (N9667.57, E687.41), and running thence
North 0°42’20” East, 372.46 feet along the West boundary line of said Section 6 to Corner No. 2; thence
South 20°36’ East, 59.71 feet to Corner No. 3, a point identical with Corner No. 4 of the Washington Water Power Company (WWP Co.) tract as described in Document No. 302109, recorded November 2, 1982, records of Shoshone County, Idaho from The Bunker Hill Company to Bunker Limited Partnership, Parcel 28 of Exhibit “A”, pages 12 and 13; thence
South 69°24’ West, 12.87 feet to Corner No. 4, identical with Corner No. 3 of said WWP Co. tract; thence
South 14°20’ East, 118.05 feet to Corner No. 5, identical with Corner No. 2 of said WWP Co. tract; thence
South 2°23’30” West, 187.00 feet to Corner No. 6, identical with Corner No. 1 of said WWP Co. tract; thence
South 80°00’ East, 53.98 feet along the Southerly boundary line of said WWP Co. tract to its point of intersection with the South boundary line of the Northwest Quarter of said Section 6; thence
South 88°55’25” West, 88.05 feet along said boundary line of said Section 6 Northwest Quarter to Corner No. 1 and place of beginning.

DESCRIPTION OF MINERAL PARCELS

PARCEL 1:

Reeves, M.S. 1412 Patented Mining Claim situated in Yreka Mining District in Section 2, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 8, Deeds, at page 66.

PARCEL 2:

Packard, M.S. 1413 Patented Mining Claim situated in Yreka Mining District in Section 2, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 193.

PARCEL 3:

Quaker, M.S. 1414 Patented Mining Claim situated in Yreka Mining District in Section 2, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 388.

PARCEL 4:

Danish, M.S. 1503 Amended Patented Mining Claim situated in Yreka Mining District in Section 2, Township 48 north, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded as Instrument No. 209774, records of Shoshone County, State of Idaho.

PARCEL 5:

Alfred (shown of record as Alfred) and Maggie, M.S. 1628 Patented Mining Claims situated in Yreka Mining District in Section 2, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 247.

PARCEL 6:

Princess, M.S. 1633 Patented Mining Claim situated in Yreka Mining District in Section 11, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 301.

PARCEL 7:

Royal Knight and Silver King, M.S. 1639 Amended Patented Mining Claims situated in Yreka Mining District in Sections 2 and 11, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 304.

PARCEL 8:

Phillippine, M.S. 1663 Patented Mining Claim situated in Yreka Mining District in Section 2, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 322.

PARCEL 9:

Harrison, M.S. 1664 Patented Mining Claim situated in Yreka Mining District in Section 11, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 307.

PARCEL 10:

Ninety-Six (96), M.S. 1715 Patented Mining Claim situated in Yreka Mining District in Section 11, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 349.

PARCEL 11:

Lydia Fraction, Mabel, Manila, O.K., O.K. Western, Sunny and Whippoorwill, M.S. 1723 Patented Mining Claim situated in Yreka Mining District in Sections 2 and 3, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 28, Deeds, at page 446.

PARCEL 12:

William Lambert Fraction, M.S. 1945 Patented Mining Claim situated in Yreka Mining District in Section 2, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 1, Deeds, at page 580.

PARCEL 13:

Band, M.S. 2507 Patented Mining Claim situated in Yreka Mining District in Section 2, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 41, Deeds, at page 251.

PARCEL 14:

Maine, M.S. 2626 Patented Mining Claim situated in Yreka Mining District in Sections 2 & 11, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 45, Deeds, at page 180.

PARCEL 15:

Venture, M.S. 3164 Patented Mining Claim situated in Yreka Mining District in Section 2, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 62, Patents, at page 72.

PARCEL 16:

Goth, L-2, L-3 M. S. 3214 Patented Mining Claims Patent Mining Claim situated in Yreka Mining District in Sections 2 and 9, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 64, Deeds, at page 284.

PARCEL 17:

Castle, M.S. 3503 Patented Mining Claim situated in Yreka Mining District in Section 17, Township 48 North, Range 3 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 96, Deeds, at page 356.

PARCEL 18:

Silver King Millsite, M.S. 3563 Patented Mining Claim situated in Yreka Mining District in Section 2, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 123, Deeds, at page 166.

PARCEL 19:

Tyler, M.S. 546 Amended Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 34, Deeds, at page 546

PARCEL 20:

Emma, M.S. 550 Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded as Instrument No. 209775, records of Shoshone County, State of Idaho.

PARCEL 21:

Last Chance, M. S. 551 Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 1, Deeds, at page 433

PARCEL 22:

Sierra Nevada, M.S. 554 Patented Mining Claim situated in Yreka Mining District in Sections 11 & 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 1, Deeds, at page 358.

PARCEL 23:

Viola, M.S. 562 Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 619.

PARCEL 24:

Oakland, M.S. 569 Patented Mining Claim situated in Yreka Mining District in Sections 11 & 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 235.

PARCEL 25:

Jackass, M.S. 586 Amended Patented Mining Claim situated in Yreka Mining District in Sections 12 & 13, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 6, Deeds, at page 75.

PARCEL 26:

Lackawanna, M.S. 614 Patented Mining Claim situated in Yreka Mining District in Section 13, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 6, Patents, at page 260.

PARCEL 27:

Skookum, M.S. 615 Patented Mining Claim situated in Yreka Mining District in Sections 11 & 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book X, Deeds, at page 313

PARCEL 28:

Rolling Stone, M.S. 619 Patented Mining Claim situated in Yreka Mining District in Section 13, Township 48 North, Range 2 East, B.M., and in Section 18, Township 48 North, Range 3 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 38, Deeds, at page 484.

PARCEL 29:

Fairview, M.S. 621 Patented Mining Claim situated in Yreka Mining District in Section 18, Township 48 North, Range 3 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 301.

PARCEL 30:

San Carlos, M.S. 750 Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 535.

PARCEL 31:

Ontario Fraction, M.S. 755 Patented Mining Claim situated in Yreka Mining District in Section 11, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 382.

PARCEL 32:

Sold Again Fraction, M.S. 933 Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 9, Deeds, at page 207.

PARCEL 33:

Republican Fraction, M.S. 959 Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 301.

PARCEL 34:

Likely, M.S. 1298 Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book B, Patents, at page 25.

PARCEL 35:

Apex, Rambler and Tip Top, M.S. 1041 Patented Mining Claim situated in Yreka Mining District in Section 11, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 139.

PARCEL 36:

Butte, Cariboo, Good Luck, Jersey Fraction and Lilly May, M.S. 1220 Patented Mining Claim situated in Yreka Mining District in Sections 11 and 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 24, Deeds, at page 23.

PARCEL 37:

Mabundaland, Mashonaland, Matabelaland, Stopping and Zululand, M.S. 1227 Patented Mining Claim situated in Yreka Mining District in Section 13, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 38, Deeds, at page 481.

PARCEL 38:

Alla, Bonanza Fraction, East, Ironhill, Lacrosse, Miners Delight, No Name, Ollie McMillin, Schofield, Sullivan Extension and Summit, M.S. 1228 Patented Mining Claim situated in Yreka Mining District in Section 13, Township 48 North, Range 2 East, B.M., and in Section 18, Township 48 North, Range 3 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 301.

PARCEL 39:

Allie, Blue Bird, Bought Again, Josie, Maple, Offset, Rookery and Susie, M.S. 1229 Patented Mining Claim situated in Yreka Mining District in Section 13, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 20, Deeds, at page 580.

PARCEL 40:

Hornet M.S. 1325 Amended Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 607.

PARCEL 41:

King, M.S. 1325 Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 295

Parcel 42:

Sampson, M.S. 1328 Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 196.

PARCEL 43:

Comstock, Daisy, Dandy, Jessie, Julia, Justice, Ophir and Walla Walla, M.S. 1345 Patented Mining Claim situated in Yreka Mining District in Section 18, Township 48 North, Range 3 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 20, Deeds, at page 584.

PARCEL 44:

Lucky Chance, M.S. 1349 Patented Mining Claim situated in Yreka Mining District in Section 18, Township 48 North, Range 3 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 15, Deeds, at page 494.

PARCEL 45:

Excelsior, M.S. 1356 Patented Mining Claim situated in Yreka Mining District in Section 11, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 157.

PARCEL 46:

No. 1, No. 2, No. 3 and No. 4, M.S. 1357 Patented Mining Claim situated in Yreka Mining District in Section 11, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 18, Deeds, at page 234.

PARCEL 47:

Carter, Coxey, Deadwood, Debs, Hamilton, Hard Cash and Nevada, M.S. 1466 Patented Mining Claim situated in Yreka Mining District in Sections 11 and 14, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 20, Patents, at page 577.

PARCEL 48:

Arizona, M. S. 1488 Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 199.

PARCEL 49:

Wheelbarrow, M.S. 1526 Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 442.

PARCEL 50:

New Era, M.S. 1527 Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 478.

PARCEL 51:

Hamilton Fraction, M.S. 1619 Patented Mining Claim situated in Yreka Mining District in Sections 11 & 14, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 289.

PARCEL 52:

Berniece, Mountain King, Mountain Queen, Southern Beauty and Waverly, M.S. 1620 Patented Mining Claim situated in Yreka Mining District in Section 14, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 292.

PARCEL 53:

Good Enough, M.S. 1628 Patented Mining Claim situated in Yreka Mining District in Section 2, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 247.

PARCEL 54:

McLelland, M.S. 1681 Patented Mining Claim situated in Yreka Mining District in Section 11, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 622.

PARCEL 55:

Stemwinder, M.S. 1830 Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 35, Deeds, at page 437.

PARCEL 56:

Utah, M.S. 1882 Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 415.

PARCEL 57:

Butternut and Homestake, M.S. 1916 Patented Mining Claim situated in Yreka Mining District in Section 13, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 38, Deeds, at page 434.

PARCEL 58:

Overlap, M.S. 2052 Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book A, Patents, at page 532.

PARCEL 59:

Bee, Combination, Hawk, Idaho, Iowa, Oregon, Scorpion Fraction and Washington, M.S. 2072 Patented Mining Claim situated in Yreka Mining District in Sections 1 & 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 33, Deeds, at page 459.

PARCEL 60:

Eighty-Five (85), Iowa No. 2, K-10, K-11, K-12, K-13, K-16, K-17, K-18, K-19, K-20, K-21, K-22, K-23, K-28, K-29, K-30, K-31, K-32, K-39, Minnesota, Missouri No. 2, Ninety-One (91) and Ninety-two (92), M.S. 2077 Patented Mining Claim situated in Yreka Mining District in Sections 14, 15 and 22, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 34, Patents, at page 425.

PARCEL 61:

Chain, M.S. 2078 Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 38, Deeds, at page 432.

PARCEL 62:

K-1, K-2, K-3, K-4, K-5, K-6, K-7, K-8, K-9, K-14, K-15, K-24, K-25, K-26, K-27, K-33, K-34, K-35, K-36, K-37, K-38, Kansas, Missouri and Texas, M.S. 2080 Patented Mining Claim situated in Yreka Mining District in Sections 14 and 23, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 34, Patents, at page 440.

PARCEL 63:

Bear, Black, Brown, Dewey, Ito, Oyama, S-1, S-2, S-3, S-4, S-5, S-6, S-7, S-8, S-9, S-10, S-11, S-12, S-13, Sampson, Sarnia and Star, M. S. 2081 Patented Mining Claim situated in Yreka Mining District in Section 13, Township 48 North, Range 2 East, B.M., and Sections 18 and 19, Township 48 North, Range 3 East, B.M., , Shoshone County, State of Idaho. Patent recorded in Book 34, Patents, at page 456.

PARCEL 64:

Sims, M.S. 2186 Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book B, Patents, at page 23.

PARCEL 65:

Lincoln, M.S. 2187 Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 40, Deeds, at page 126.

PARCEL 66:

Brooklyn, New Jersey and Schute Fraction, M.S. 2201 Patented Mining Claim situated in Yreka Mining District in Section 10, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 38, Deeds, at page 52.

PARCEL 67:

Cheyenne, M.S. 2249 Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 42, Deeds, at page 505.

PARCEL 68:

Buckeye, M.S. 2250 Patented Mining Claim situated in Yreka Mining District in Section 13, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho.

PARCEL 69:

Timothy Fraction, M.S. 2274 Patented Mining Claim situated in Yreka Mining District in Section 18, Township 48 North, Range 3 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 43, Deeds, at page 36.

PARCEL 70:

Confidence and Flagstaff, M.S. 2328 Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., and in Section 7, Township 48 North, Range 3 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book B, Patents, at page 27.

PARCEL 71:

Norman, M.S. 2368 Patented Mining Claim situated in Yreka Mining District in Section 11, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 41, Deeds, at page 410.

PARCEL 72:

Grant, M.S. 2369 Patented Mining Claim situated in Yreka Mining District in Sections 11 & 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 41, Deeds, at page 408.

PARCEL 73:

Cypress, M.S. 2429 Patented Mining Claim situated in Yreka Mining District in Sections 12 & 13, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 41, Deeds, at page 255.

PARCEL 74:

Hickory and Spruce Fraction, M.S. 2432 Patented Mining Claim situated in Yreka Mining District in Section 13, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 41, Deeds, at page 253.

PARCEL 75:

Helen Marr and Hemlock, M.S. 2452 Patented Mining Claim situated in Yreka Mining District in Sections 12 and 13, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 41, Deeds, at page 415.

PARCEL 76:

Spokane, M.S. 2509 Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 41, Deeds, at page 305.

PARCEL 77:

Heart, Jack, Key, Queen and Teddy, M.S. 2511 Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 45, Deeds, at page 21.

PARCEL 78:

Ace, Club, Diamond, Nellie, Roman and Spade, M.S. 2583 Patented Mining Claim situated in Yreka Mining District in Sections 11 and 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 47, Deeds, at page 196.

PARCEL 79:

Brady, M.S. 2584 Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 43, Deeds, at page 135.

PARCEL 80:

A, B, C, D, E, F, Drew, Edna, Emily Grace, Foster, K-40, Lilly, Medium, Missing Link, No. 1, No. 2, Peak, Penfield, Sliver, Snowline, Yreka No. 10, Yreka No. 11, Yreka, No. 12, Yreka No. 13, Yreka No. 14, Yreka No. 15, Yreka No. 16, Yreka No. 17, Yreka no. 18, Yreka No. 19, Yreka No. 20, Yreka no. 21, Yreka No. 22, Yreka No. 23, Yreka No. 24, Yreka No. 25 and Yreka No. 26, M.S. 2587 Patented Mining Claim situated in Yreka Mining District in Sections 13, 24 and 25, Township 48 North, Range 2 East, B.M., and in Sections 19 and 30, Township 48 North, Range 3 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 57, Deeds, at page 597 and in Book 57, Deeds, page 85.

PARCEL 81:

Boer and Grant, M.S. 2599 Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 45, Deeds, at page 27.

PARCEL 82:

Asset, Childs, Eli, Evans, Gun, Nick, Ox, Ruth, Sherman, Simmons, Taft and Yale, M.S. 2611 Patented Mining Claim situated in Yreka Mining District in Sections 12 and 13, Township 48 North, Range 2 East, B.M., and in Sections 18 & 19, Township 48 North, Range 3 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 56, Deeds, at page 99.

PARCEL 83:

African, Gus, Roy and Trump, M.S. 2624 Patented Mining Claim situated in Yreka Mining District in Section 13, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 43, Deeds, at page 561.

PARCEL 84:

Kirby Fraction, McClellan, Miles and Pitt, M.S. 2654 Patented Mining Claim situated in Yreka Mining District in Section 12, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 47, Deeds, at page 632.

PARCEL 85:

Bonanza King Millsite, M.S. 2868 Patented Mining Claim situated in Yreka Mining District in Section 8, Township 48 North, Range 3 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 61, Deeds, at page 112.

PARCEL 86:

Flagstaff No. 2, Flagstaff No. 3, Flagstaff No. 4, Scelinda No. 1, Scelinda No. 2, Scelinda No. 3, Scelinda No. 4, Scelinda No. 5, Scelinda No. 7 and Scelinda No. 8, M.S. 2921 Patented Mining Claim situated in Yreka Mining District in Sections 1 and 12, Township 48 North, Range 2 East, B.M., and in Section 7, Township 48 North, Range 3 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 59, Deeds, at page 120.

PARCEL 87:

Ethel, Katherine, Manchester, McRooney, Stuart No. 2, Stuart No. 3, Sullivan and Switzerland, M.S. 2966 Patented Mining Claim situated in Yreka Mining District in Sections 10 and 11, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 56, Deeds, at page 482.

PARCEL 88:

Hoover No. 1, Hoover No. 2, Hoover No. 3, Hoover No. 4 and Hoover No. 5, M.S. 2975 Patented Mining Claim situated in Yreka Mining District in Sections 13, 14, 23 & 24, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 56, Deeds, at page 490.

PARCEL 89:

Adath, Al-kyris, Anna Laura, Atlas, Atlas No. 1, Fraction, Gay, Panorama, Red Deer and Setzer, M.S. 2976 Patented Mining Claim situated in Yreka Mining District in Sections 22 and 23, Township 48 North, Range 2 East, B.M., and in Section 7, Township 48 North, Range 3 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 56, Deeds, at page 493.

PARCEL 90:

Lesley, Lesley No. 2, Lesley No. 3, Little Ore Grande, North Wellington, Ore Grande No. 1, Ore Grande No. 2, Ore Grande No. 3, Ore Grande No. 4, Ore Grande no. 5 and Wellington M.S. 2977 Patented Mining Claim situated in Yreka Mining District in Sections 23 and 26, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 56, Deeds, at page 496.

PARCEL 91:

Marko, V.M. No. 1 and V.M. No. 2, M.S. 3051 Patented Mining Claim situated in Yreka Mining District in Sections 7 and 18, Township 48 North, Range 3 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 59, Deeds, at page 78.

PARCEL 92:

Army and Navy, M.S. 3096 Patented Mining Claim situated in Yreka Mining District in Section 22, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 60, Deeds, at page 223.

PARCEL 93:

Oracle, Orbit, Oreano, Ore Shoot, Orient, Oriental Orphan and Orpheum, M.S. 3097 Patented Mining Claim situated in Yreka Mining District in Section 23, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 60, Deeds, at page 255.

PARCEL 94:

East Midland, Midland, Midland No. 1, Midland No. 3, Midland No. 4, Midland No. 5, Midland No. 6, Midland No. 7, Midland No. 8 and North Midland, M.S. 3108 Patented Mining Claim situated in Yreka Mining District in Sections 13 & 24, Township 48 North, Range 2 East, B.M., and in Section 19, Township 48 North, Range 3 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 60, Deeds, at page 319.

PARCEL 95:

Monte Carlo No. 1, Monte Carlo No. 2, Monte Carlo No. 3, Monte Carlo No. 4 and Monte Carlo No. 5, M.S. 3177 Patented Mining Claim situated in Yreka Mining District in Sections 7 and 18, Township 48 North, Range 3 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 63, Deeds, at page 183.

PARCEL 96:

Long John, M.S. 3179 Patented Mining Claim situated in Yreka Mining District in Section 7, Township 48 North, Range 3 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 63, Deeds, at page 611.

PARCEL 97:

L-1, M.S. 3214 Patented Mining Claim situated in Yreka Mining District in Section 2, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 64, Deeds, at page 284.

PARCEL 98:

Pete, Prominade, Sam and Zeke, M.S. 3389 Patented Mining Claim situated in Yreka Mining District in Section 10, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 77, Deeds, at page 173.

PARCEL 99:

Battleship Oregon, Charly T., Lucia, Marblehead, Margaret, Nancy B., Olympia and Phil, M.S. 3390 Patented Mining Claims situated in Yreka Mining District in Sections 11 and 14, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 77, Deeds, at page 338.

PARCEL 100:

Beta, M.S. 3471 Patented Mining Claim situated in Yreka Mining District in Section 13, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded as Instrument No. 168414, records of Shoshone County, State of Idaho.

PARCEL 101:

Spokane Central No. 1, Spokane Central No. 2, Spokane Central No. 3, Spokane Central No. 3 Fr., Spokane Central No. 4 and Spokane Central No. 5, M.S. 3472 North Fork Coeur d’Alene Patented Mining Claim situated in Yreka Mining District in Sections 19, 20 and 29, Township 48 North, Range 3 East, B.M., Shoshone County, State of Idaho. Patents recorded as Instrument No. 179430 and as Instrument No. 219606, records of Shoshone County, State of Idaho.

PARCEL 102:

Anaconda, Apex, Apex no. 2, Apex No. 3, Blue Bird, Blue Grouse, Bob White, Butte, Butte Fraction, Cougar, Galena, Huckleberry No. 2, Leopard, Lynx, MacBenn, Martin, Pheasant, Robbin and Sonora, M.S. 3361 Patented Mining Claims situated in Yreka Mining District in Sections 1 and 2, Township 47 North, Range 2 East, B.M., and in Section 35, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 76, Deeds, at page 626.

PARCEL 103:

A 1/6 interest only in the Baby, Keystone, Van and Woodrat, M.S. 2856 Patented Mining Claims situated in Yreka Mining District in Sections 2 & 3, Township 47 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 56, Deeds, at page 52.

PARCEL 104:

Evening Star, Evening Star Fraction, Maryland, Monmouth, Oregon, Oregon No. 2 and Silver Chord, M.S. 2274 Patented Mining Claims situated in Yreka Mining District in Section 15, Township 48 North, Range 3 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 43, Deeds, at page 36.

PARCEL 105:

Spring, M.S. 3298 Patented Mining Claims situated in Yreka Mining District in Section 15, Township 48 North, Range 3 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 73, Deeds, at page 394.

PARCEL 106:

Milo Millsite, M.S. 2869 Patented Mining Claims situated in Yreka Mining District in Sections 8 and 17, Township 48 North, Range 3 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 61, Deeds, at page 111.

PARCEL 107:

Black Diamond, Carbonate, Enterprise, Enterprise Extension, Gelatin, Giant and Rolling Stone, M.S. 3423 Patented Mining Claims situated in Yreka Mining District in Sections 3 and 10, Township 48 North, Range 3 East, B.M., Shoshone County, State of Idaho.

PARCEL 108:

Chief No. 2 and Sugar, M.S. 2862 Patented Mining Claims situated in Yreka Mining District in Section 11, Township 48 North, Range 2 East, B.M., Shoshone County, State of Idaho. Patent recorded in Book 55, Deeds, at page 585.

3.1.2 OTHER BUNKER HILL PROPERTY CONSIDERATIONS

Patented mining claims in the State of Idaho do not require permits for underground mining activities to commence on private lands. Other permits associated with underground mining may be required, such as water discharge and site disturbance permits. Water discharged from Bunker Hill Mine is being treated at the Central Treatment Plant (“CTP”), which is located across the street from Bunker Hill Mine. The facility is owned by US EPA. Water discharged from the CTP meets the requirements of an existing NPDES permit for discharge into the South Fork of the Coeur d’Alene River. The company is required to obtain its own NPDES water discharge permit by May 14, 2023. Engineering work is expected to be completed in 2022 for a water treatment system at Bunker Hill Mine that will meet NPDES discharge limits (now Idaho Pollutant Discharge Elimination System, or “IPDES”).

The land package included purchase of Bunker Hill Mine by BHMC includes approximately the same land and mine infrastructure that was transferred to PMC in 1992. Over 90% of surface ownership of patented mining claims not owned by PMC is owned by different landowners. These include: Stimpson Lumber Co.; Riley Creek Lumber Co.; Powder LLC.; Golf LLC.; C & E Tree Farms; and Northern Lands LLC.

3.2 ENVIRONMENTAL LIABILITIES

On May 14, 2018, Bunker Hill Mining Corp. (“BHMC”), the U.S. Environmental Protection Agency (“EPA”) and the Department of Justice (“DOJ”) entered into an administrative settlement agreement and order on consent. Concurrent with this administrative settlement agreement, on March 12, 2018, EPA and DOJ lodged a consent decree with the owner of the mine at the time, Placer Mining Corporation ("PMC"). The settlement package was essential for the redevelopment of Bunker Hill Mine that is now beginning because it established specific limitations on liability for past environmental damage related to CERCLA, also known as the United States Superfund, for the Bunker Hill Mine.

The Settlement Agreement and Order on Consent (the "Settlement" or "Settlement Agreement") specifically limits BHMC's liability for past environmental damage in exchange for performance of obligations that are described later in the agreement. The "Settlement" can be found and read in its entirety on the US EPA's website under CERCLA Docket No. 10-2017-0123. These obligations include $20 million in recovery of past EPA response costs for the mine's water treatment through a schedule of payments that were to occur over a 7-year period starting in 2018. BHMC also became liable for ongoing water treatment costs incurred by the EPA at the water treatment facility located across the street from the Mine, known as the Central Treatment Plant ("CTP"). The agreement also specified a range of care and maintenance activities within the mine that would be required jointly with PMC.

On December 18, 2021 BHMC signed an amendment to the Settlement Agreement along with the EPA, US DOJ and the Idaho Department of Environmental Quality ("IDEQ"). Material changes to the Settlement Agreement included a rescheduling of the payments so that $17 million of the historical cost recovery payments BHMC anticipates making from projected future cash flow from sales of concentrate produced by the mine.

BHMC's environmental liabilities are limited with respect to past environmental damage by paragraph II.5. of its Settlement Agreement. This paragraph states:

> "In view of the complex nature and significant extent of the work to be performed in connection with the response actions at the Mine and the Site, and the risk of claims under CERCLA being asserted against Purchaser as a consequence of Purchaser's activities at the Site pursuant to this Settlement Agreement, one of the purposes of this Settlement Agreement is to resolve, subject to the reservations and limitations contained in Section XVIII ("Reservations of Rights by United States"), any potential liability of Purchaser under CERCLA for the Existing Contamination and Work as defined by Paragraph 10."

The Work program defined in Paragraphs 9 of the Settlement Agreement is described in the "Environmental Activities" section of this study as "Ongoing Work Required by US EPA." The liabilities of BHMC are further described in the Settlement Agreement in paragraph 2 of the Settlement Amendment between US EPA and Bunker Hill Mining corp. This was executed on December 18, 2021. Section of that document stipulates as follows:

> "BHMC is exercising its option to purchase the Mine. As the owner and operator of the Mine, BHMC shall pay to EPA, as a portion of the purchase price, and in satisfaction of EPA's claim for cost recovery against Placer Mining Company 'PMC' as set forth in the Complaint filed by the United States on March 17, 2004 in the United States District Court for the District of Idaho (2:04-cv-00126), $19,000,000, plus Interest, in accordance with the following payment schedule:

Table 3-1 Water Treatment Cost Recovery Schedule

Date	Amount	
Within 30 days of the Effective Date of the Settlement Agreement	$	1,000,000 (Paid by BHMC in 2018)
Within 30 days of the First Amendment Effective Date	$	2,000,000 (Paid by BHMC in Jan 2022)
November 1, 2024	$	3,000,000
November 1, 2025	$	3,000,000
November 1, 2026	$	3,000,000
November 1, 2027	$	3,000,000
November 1, 2028	$	3,000,000

November 1, 2029	$	2,000,000
		plus accrued interest

BHMC is responsible for making all future cost recovery payments to US EPA now that it has purchased the Bunker Hill Mine from PMC.

BHMC's liability for such payments does not extend to any year in which BHMC no longer owns and/or occupies the Mine after July 1.

Beginning on the first day of the month following the First Amendment Effective Date, BHMC shall additionally make monthly payments in the amount of $140,000 to IDEQ, unless otherwise directed by EPA, for the estimated costs at the CTP associated with the treatment of water from the Mine. One year after the First Amendment Effective Date, BHMC shall make monthly payments in the amount of $200,000 to IDEQ, unless otherwise directed by EPA, for the estimated costs at the CTP associated with the treatment of water from the Mine. Two years after the First Amendment Effective Date, BHMC shall make monthly payments of the estimated mean average costs over the previous two years associated with the treatment of water from the Mine to IDEQ, unless otherwise directed by EPA. EPA and IDEQ will determine actual costs incurred and attributable to the Mine based on the following: (1) water treatment costs for lime and flocculants will be determined based on the Mine waters relative proportion of lime demand per month; (2) all other water treatment costs, including on-call maintenance and emergency responses (OMERs) except those that meet the criteria of number (3) will be determined based on the Mine's relative percentage of hydraulic load per month; and (3) OMERs attributable to changes in the Mines water chemistry and/or hydraulic load will be 100% billed to BHMC. IDEQ will send written notification to BHMC with a copy to EPA annually to reconcile water treatment costs paid with actual costs incurred, along with a bill for any owed costs, as appropriate. Within 30 days of receipt of the annual notification and bill, BHMC may request to meet with EPA and IDEQ to discuss the amounts billed. If BHMC disagrees with any amount billed, BHMC may utilize dispute resolution pursuant to Section XIV of the Settlement Agreement. Payment of any undisputed owed costs as indicated in such notification and bill shall be paid 60 days after the date of such bill. BHMC shall continue to make all of the foregoing water treatment payments for so long as EPA and/or IDEQ are treating water from the Mine. The above stated costs are currently under review by IDEQ and the EPA and costs of subsequent mine water treatment performed at the CTP have been scheduled into the Project economics as such.

The activities planned in this report will create minimal surface disturbance and are low environmental impact in nature. As currently conceived, crushing, milling and processing will be done in a manner that does not create additional disturbance and generates no negative impact of significance. If for any reason waste and/or tailings are required to be deposited on surface at any point in the future, the design, engineering and construction of the facility will meet ICOLD (International Commission on Large Dams) standards as well as all applicable environmental laws and regulations.

No additional environmental liabilities are anticipated as a result of the activities planned by BHMC. The company will initiate a voluntary Environmental Social and Health Impact Assessment that conforms to ISO and IFC standards. The study will commence in Q4 of 2022 and is expected to conclude in Q1 of 2024. The study contains 13 component studies that will measure a broad range of impacts. The study will be used to development plans and activities that maximize positive impacts of the mine's production and mitigate any negative impacts.

No permits are required for the initiation of mining activities on the Property. Permits will be required for air emissions associated with certain milling and processing activities. Mine water discharge will be processed at the CTP.

Other changes included a modification of payment for current ongoing water treatment services provided to the mine by EPA and IDEQ. Rather than two semi-annual payments of $480,000, BHMC will make a monthly payment of $140,000 for the first 12 months after execution of the amendment. From months 13 onward, the monthly payment will increase to $200,000. The increase in annualized costs of water treatment is the result of recently completed upgrades of the water treatment system at the CTP that allow it meet more stringent discharge standards. If and when BHMC develops its own water treatment system that is capable of meeting water discharge standards, these payments will cease. BHMC will also make an addition payment to EPA of approximately $2.9M within 90 days of the effective date of the Settlement Amendment.

These constitute the current environmental obligations and responsibilities of BHMC related to Bunker Hill mine site.

3.2.1 HISTORY OF SUPERFUND LIABILITIES

In 1983, Bunker Hill Mine was included in the 21-square mile box (the "Site") listed on the Environmental Protection Agency's National Priorities List as a Superfund Site. In 1992, PMC purchased a portion of the Site, which includes underground workings, mineral rights, and much of the land surface above the Mine, from Bunker Limited Partnership. PMC did not purchase the entire Complex nor the Central Treatment Plant ("CTP") that was constructed by Gulf Resources in 1974 and operated until the sale of Bunker Hill to BLP.

At the time of purchase, PMC assumed liability for Bunker Hill Mine for environmental response costs and any claims under the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), also known as Superfund.

In November 1994, Federal and State governments assumed operation of the CTP for ongoing treatment of Acid Mine Drainage.

Two years after PMC purchased Bunker Hill Mine, in 1994, EPA issued a Unilateral Administrative Order ("UAO") to PMC directing PMC to meet three main obligations related to Bunker Hill Mine effluent and water management in and around the mine site. These included:

- Keeping the mine pool (flooded workings within the mine) pumped to an elevation below the level of the South Fork of the Coeur d'Alene River (at or below Level 11 of the Mine)
- To convey mine water to the EPA's Central Treatment Plant for treatment unless an alternative form of treatment was approved,
- Provide for emergency mine water storage within the mine.

In 2017, EPA issued an additional UAO to PMC directing PMC to:

- Control mine water flows to the CTP during needed upgrades at the CTP
- In high flow periods, to conduct operation and maintenance of the Reed Landing Flood Control Project,
- To file an environmental covenant on a portion of the Mine property regarding access and operation and maintenance,
- Allowing PMC to fill the mine pool to Level 10 during specific events.

EPA has incurred costs in operating the CTP, which treats the approximately 1,300 to 1,400 gallons-per-minute of acid mine drainage released from the mine on an ongoing daily basis.

The consent decree of 2018 and administrative settlement agreement, mentioned above, embody a settlement package involving PMC, BHMC, and the United States at the Bunker Hill Mining and Metallurgical Superfund Site. The consent decree and administrative settlement agreement work in tandem. The Settlement Amendment does not include PMC. It was signed only between BHMC, US EPA, DOJ and IDEQ.

3.3 OBSERVATIONS

To the extent known, the RDA knows of no other royalties, back-in rights, payments or other agreements and encumbrances to which the property is subject.

RDA knows of no other environmental liabilities to which the Property is subject.

RDA is unaware of any other permits that must be acquired to conduct work on the Property.

RDA knows of no other significant factors and risks that may affect access, title, or the right or ability to perform work on the Property.

3.4 ROYALTIES, PAYMENTS AND AGREEMENTS

On December 20, 2021, the Company executed a non-binding term sheet outlining a $50,000,000 project finance package with Sprott Private Resource Streaming and Royalty Corp. ("SRSR"). The non-binding term sheet with SRSR outlined a project financing package that the Company expects to fulfill the majority of its funding requirements to restart the Mine. The term sheet consisted of an $8,000,000 royalty convertible debenture (the "RCD"), a $5,000,000 convertible debenture (the "CD1"), and a multi-metals stream of up to $37,000,000 (the "Stream"). The CD1 was subsequently increased to $6,000,000, increasing the project financing package to $51,000,000.

On June 17, 2022, the Company consummated a new $15,000,000 convertible debenture (the "CD2"). As a result, total potential funding from SRSR was further increased to $66,000,000 including the RCD, CD1, CD2 and the Stream (together, the "Project Financing Package").

The Company closed the $8,000,000 RCD on January 7, 2022. The RCD bears interest at an annual rate of 9.0%, payable in cash or Common Shares at the Company's option, until such time that SRSR elects to convert a royalty, with such conversion option expiring at the earlier of advancement of the Stream or July 7, 2023 (subsequently amended as described below). In the event of conversion, the RCD will cease to exist and the Company will grant a royalty for 1.85% of life-of-mine gross revenue from mining claims considered to be historically worked, contiguous to current accessible underground development, and covered by the Company's 2021 ground geophysical survey (the "SRSR Royalty"). A 1.35% rate will then apply to claims outside of these areas. The RCD was initially secured by a share pledge of the Company's operating subsidiary, Silver Valley Metals Corp, until a full security package was put in place concurrent with the consummation of the CD1. In the event of non-conversion, the principal of the RCD will be repayable in cash.

Concurrent with the funding of the CD2 in June 2022, the Company and SRSR agreed to a number of amendments to the terms of the RCD, including an amendment of the maturity date from July 7, 2023, to March 31, 2025. The parties also agreed to a Royalty Put Option such that in the event the RCD is converted into a royalty as described above, the holder of the royalty will be entitled to resell the royalty to the Company for $8,000,000 upon default under the CD1 or CD2 until such time that the CD1 and CD2 are paid in full.

The Company closed the $6,000,000 CD1 on January 28, 2022, which was increased from the previously announced $5,000,000. The CD1 bears interest at an annual rate of 7.5%, payable in cash or shares at the Company's option, and matures on July 7, 2023 (subsequently amended, as described below). The CD1 is secured by a pledge of the Company's properties and assets. Until the closing of the Stream, the CD1 was to be convertible into Common Shares at a price of C$0.30 per Common Share, subject to stock exchange approval (subsequently amended, as described below). Alternatively, SRSR may elect to retire the CD1 with the cash proceeds from the Stream. The Company may elect to repay the CD1 early; if SRSR elects not to exercise its conversion option at such time, a minimum of 12 months of interest would apply.

Concurrent with the funding of the CD2 in June 2022, the Company and SRSR agreed to a number of amendments to the terms of the CD1, including that the maturity date would be amended from July 7, 2023, to March 31, 2025, and that the CD1 would remain outstanding until the new maturity date regardless of whether the Stream is advanced, unless the Company elects to exercise its option of early repayment. The Company determined that amendments to the terms should not be treated as an extinguishment of CD1, but as a debt modification.

The Company closed the $15,000,000 CD2 on June 17, 2022. The CD2 bears interest at an annual rate of 10.5%, payable in cash or shares at the Company's option, and matures on March 31, 2025. The CD2 is secured by a pledge of the Company's properties and assets. The repayment terms include 3 quarterly payments of $2,000,000 each beginning June 30, 2024, and $9,000,000 on the maturity date.

In light of the Series 2 Convertible Debenture financing, the previously permitted additional senior secured indebtedness of up to $15 million for project finance has been removed.

A minimum of $27,000,000 and a maximum of $37,000,000 (the "Stream Amount") will be made available under the Stream, at the Company's option, once the conditions of availability of the Stream have been satisfied including confirmation of full project funding by an independent engineer appointed by SRSR. If the Company draws the maximum funding of $37,000,000, the Stream will apply to 10% of payable metals sold until a minimum quantity of metal is delivered consisting of, individually, 55 million pounds of zinc, 35 million pounds of lead, and 1 million ounces of silver (subsequently amended, as described below). Thereafter, the Stream would apply to 2% of payable metals sold. If the Company elects to draw less than $37,000,000 under the Stream, the percentage and quantities of payable metals streamed will adjust pro-rata. The delivery price of streamed metals will be 20% of the applicable spot price. The Company may buy back 50% of the Stream Amount at a 1.40x multiple of the Stream Amount between the second and third anniversary of the date of funding, and at a 1.65x multiple of the Stream Amount between the third and fourth anniversary of the date of funding. As of November 21, 2022, the Stream has not been advanced.

Concurrent with the funding of the CD2 in June 2022, the Company and SRSR agreed that the minimum quantity of metal delivered under the Stream, if advanced, will increase by 10% relative to the amounts noted above.

4 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The Bunker Hill Mine Project is located at Kellogg, Idaho within the Coeur d'Alene mining district, Shoshone County, Idaho. The area is accessed from Spokane, Washington via Interstate 90 east, to the mile 50 exit. Access to the Kellogg Tunnel is via McKinley Avenue, a public road, then using the Bunker Mine Road to the Kellogg tunnel entrance. The elevation of the mine is approximately 2,300 feet above sea level.

The Bunker Hill Mine Project is in a sub-alpine mountainous region of the state and is deeply incised by the Coeur d'Alene river. Average annual rainfall is approximately 25 inches (635 mm), and average annual snowfall is approximately 1,220 mm). Summers are generally dry and warm while winter can bring heavy accumulations of snow in the mountains. Vegetation is composed mainly of grass lands on south facing slopes and conifer forest on north facing slopes. The climate is favorable for year-round mining operations.

The closest major airports to the Bunker Hill Mine Project are in Spokane, Washington, 32 miles (51.5 km) west of Coeur d'Alene on I-90 and Missoula, Montana, 108 miles (174 km) east of Lookout Pass on I-90. Access to the site is open year-round. City water and sewer utilities are available at site and electric service is established at site. Further details on utility requirements for mining operations are detailed further in this report. Necessary supplies, equipment, and services to carry out exploration and mine development projects are available in Kellogg, Wallace, Mullan, Coeur d'Alene, and Wardner, Idaho, as well as Spokane, Washington. A trained mining workforce is available in the above-mentioned communities.

5 HISTORY

The Bunker Hill Mine is one of the most storied base metal and silver mines in American history. Initial discovery and development of the property began in 1885, and from that time until the mine closed for the final time in 1991 total production from the mine totaled 42.77 million tons at an average grade of 8.43% Pb, 3.52 oz Ag/ton and 4.52% Zn. Through its history the area encompassing the Bunker Hill mine accounts for nearly 42% of the total lead, 41% of the zinc and 15% of the silver production in the Coeur d'Alene Mining District. Only the Sunshine and Galena mines have produced more silver. Over this long history, over 40 separate mineralized zones were exploited at the Bunker Hill mining complex.

5.1 DISCOVERY AND HISTORICAL OWNERSHIP

Discovery of Bunker Hill occurred in the summer of 1885 when Noah Kellogg, a prospector from Murray Idaho, discovered the Bunker Hill outcrop. Through a series of partnerships and sales, The Bunker Hill and Sullivan Mining and Concentrating Company was incorporated in July of 1887. Operations focused on the upper levels easily accessed by means of surface portals. Mined material was transported by aerial tramway to the mill site in Kellogg. By 1893 mining had progressed to the creek level near Wardner, ID where it became evident that continued operations would require a significant investment to access down dip extension to mineralized veins and bedding. Work began on the eponymous Kellogg Tunnel during 1893 which was completed in 1902. The tunnel provided access to the 9-Level (2,406 msl) of the mine which became the main area of operations for the mining operation. A series of shafts provided access down-dip where exploitation of the resource reached the 28-Level (-1,200 msl). The company began public trading in 1905. In 1912 construction of a lead smelter commenced which became operational five years later in 1917 followed by an electrolytic zinc smelter in 1927. In 1956 the corporate name was shortened to The Bunker Hill Company where operations continued until 1968 when, as result of a hostile merger, the Bunker Hill Company became a wholly owned subsidiary of Gulf Resources and Chemical Corporation.

In 1981 a decline in metal prices led to a slow-down in operations at the mine and resulted in significant lay-offs. Continued uncertainty about metal prices, the unlikelihood of winning wage rollbacks from labor, and increasingly stringent environmental regulations contributed to Gulf Resources' decision in August 1981 to close its Bunker Hill operations and put the company up for sale. In 1982 the company was sold to the Bunker Limited Partnership. BLP reopened the mine while keeping the lead and zinc operations closed. The mine operated from 1988 to 1991 at which point BLP filed for bankruptcy. On May 1, 1992, mineral rights were transferred to Robert Hopper, owner of Placer Mining Co., of Bellevue, Washington.

On August 28, 2017, Bunker Hill Mining entered into a definitive agreement with Placer Mining Corp. (PMC) on a lease with an option to purchase the Bunker Hill Mine. The agreement included mining claims, surface rights, fee parcels, mineral interests, existing infrastructure, machinery and buildings at the Kellogg Tunnel portal in Milo Gulch, or anywhere underground at the Bunker Hill Mine Complex; except exclusions of the Machine Shop Building and Parcel, unprocessed mineralization on deck and residual lead/zinc mineralization mined and broken, but not removed from the Bunker Hill Mine. The lease period was able to have been extended a further 12 months at the Company's discretion. During the term of the lease, the Company was obligated make US$60,000 monthly mining lease payments. Bunker Hill Mining had an option to purchase the Bunker Assets at any time before the end of the lease for $11M ($M5.9 cash, $M4.9 stock). There were no other royalties or other encumbrances in the modified lease terms. After the purchase of the Bunker Hill Mine by BHMC on January 7, 2022, the terms and obligations of the lease have been replaced by the terms of a sale and purchase agreement between PMC and BHMC.

5.2 HISTORIC OPERATIONS

The Bunker Hill lode, in Milo Gulch, was discovered by prospector Noah S. Kellogg on September 9, 1885. Legend has it that Kellogg's wandering burro found the mineralized outcrop. Grubstaking a prospector was common in the early days of the Coeur d'Alene Mining District and it was under these arrangements that local Murray merchants John T. Cooper and Origin O. Peck outfitted Noah Kellogg when he set out to look for gold up the South Fork of the Coeur d'Alene River in August of 1885.

Soon after the discovery, the partners entered into an agreement with Jim Wardner whereby he secured capital for development of the mine and construction of a mill. After negotiating a contract with Selby Smelting Company to treat the process plant product, Wardner was able to interest a syndicate who organized the Helena Concentrating Co. This company built the first process plant on the Sullivan side of the gulch in July of 1886.

In 1887 Simeon Gannet Reed purchased the claims and process plant for a total of $750,000 and, in partnership with Martin Winch and Noah Kellogg, incorporated the Bunker Hill and Sullivan Mining and Concentrating Company. The financial headquarters of the company was transferred to San Francisco in September 1891. The Oregon corporation was dissolved on March 24, 1924, and the company was reincorporated in Delaware. In 1956 that the name was shortened to The Bunker Hill Company.

As the mine production increased, a process plant of larger capacity was needed, and in 1891 a 400 ton (363 tonne) per day process plant was built in the main valley below the confluence of Milo Creek with the South Fork of the Coeur d'Alene River. To transport mineralization to the process plant, an aerial tramway, with a horizontal length of 10,000 ft (3,048 m), was constructed from Wardner. This tramway served to transport all mine mineralization until the two-mile (3.2 km) Kellogg Tunnel was completed in 1902. In 1898 the Bunker Hill and Sullivan Mining and Concentrating Co. and the Alaska Treadwell Company each purchased 31.34 percent of the stock of the Tacoma Smelter on Puget Sound, rehabilitated the plant, and thereby provided a facility for smelting. When the smelter closed its lead plant in 1912, lead from the Bunker Hill Mine was shipped to Selby, California, and East Helena, Montana for processing. In 1916 the company began the construction of a lead smelter at Kellogg which went into operation in July 1917.

The Kellogg Tunnel, started in 1893 and completed in 1902, permitted exploration work to take place on the tunnel level and the intervening ground between the tunnel and the surface. This resulted in the opening up of the Carey and July stopes on the 7th and 8th levels and the March stope on the tunnel or No. 9 level. These were three of the highest grade and most productive stopes in the history of the mine.

At Kellogg, the company operated the Bunker Hill lead-zinc-silver Mine and the Crescent Silver-Copper Mine, a lead smelter and refinery, electrolytic zinc reduction plant, cadmium plant, zinc fuming plant, sulfuric acid plant and a phosphoric acid plant. Historically, the Bunker Hill Mining Company accurately recorded the production grades from individual mining areas. In the early mine life, a portion of the mining was carried out by contractors or "leasers" who were paid for the mineral content of the mineralization shipped to the process plant by sampling each carload of mineralization shipped. Accurate records of their production are documented and represent the grade of mineralization shipped for processing.

Pre-development exploration drilling and assaying was limited the early years of production and accelerated later in the mine's life with a total sum of over 3500 drill holes representing over 200,000 feet of drilling. Early exploration was primarily done by exploratory drifting and cross-cutting. Over the course of several years in the late 1970s, a dedicated team of geologists conducted ground-breaking research on the mineralized controls of the veins. The research for the first time defined distinct stratigraphic horizons in the upper Revett formation that could be correlated and mapped over distances of thousands of feet. The 1970s research ended shortly before the mine closed, and the new concepts were never fully applied to exploration.

5.3 PAST PRODUCTION

Total production from the past-producing Bunker Hill Mine from 1885 through 1981 is 35,779,448 tons (32,458,578.5 t) grading 8.76% lead, 3.67% zinc and 4.52 oz/ton (155 g/t) silver (Meyer and Springer 1985, Bingham 1985).

The largest individual zones include the March with 4,735,795 tons (4,296,242 tonnes) grading 12.03% lead, 2.25% zinc and 5.22 oz/ton (179 g/t) silver, and the Emery with 3,744,798 tons (3,397,224.5 tonnes) grading 10.31% lead, 3.86% zinc and 6.17 oz/ton (211.5 g/t) silver (Meyer and Springer 1985).

The highest-grade silver zones include the Caledonia mine with 263,182 tons grading 12.6% lead and 30.75 oz/ton silver, the Senator Stewart mine with 1,014,814 tons grading 7.9% lead and 6.34 oz/ton silver, the J-Vein with 1,130,414 tons grading 9.8% lead and 7.59 oz/ton silver, and the Truman-Ike vein with 1,861,295 tons grading 10.31% lead and 7.47 oz/ ton silver.

These historical production figures do not include production from the 18-month period when the mine was re-opened between 1989 and 1991.

Following its discovery in 1885, the Bunker Hill Mine operated continuously until 1981, except in times of labor stoppages. The mine was also operated from 1989 until January 1991 by the Bunker Limited Partnership.

During the mine operations, production came from 15 or more separate deposits mined over a vertical range of 4,800 ft (1,463 m) from 3,200 ft (975 m) above sea level to 1,600 ft (488 m) below sea level. The main entry was through the Kellogg Tunnel at 2,400 ft (732 m) elevation, (on nine level) and access to deposits below that level was by means of three major inclined shafts and other auxiliary inclines. In total, well over 100 miles (161 km) of major horizontal openings were maintained, as well as six miles (9.7 km) of shafts and raises.

Table 5-1 Historical Mine Production by Zone

Mineral Zone	Final Year of Production	Tons Mined	Pb %	Ag opt	Zn %
Emery	1981	3,744,798	10.31	6.17	3.86
Truman - Ike	1967	1,861,295	9.79	7.47	2.10
Mac	1981	1,226,038	9.58	5.34	4.39
Roger (Pb)	1980	253, 511	8.20	3.56	3.09
Shea	1981	2,088,383	7.31	4.27	3.55
Tallon	1980	1,270,295	2.13	1.06	7.71
Veral	1975	357,765	8.86	4.81	0.43
Pate	1967	322,271	9.42	4.36	6.80
Miscellaneous	1900	388,060	8.72	4.85	3.25
Tony	1979	362,393	1.94	1.24	9.72
South Chance	1980	7,175	3.41	1.85	1.77
Orr	1981	323,359	5.91	2.87	2.24
Forrest	1963	9,273	2.41	1.01	0.43
Francis	1981	972,315	11.84	5.68	4.47
FW Francis	1981	117,604	8.20	4.47	1.56
J	1980	1,130,434	9.88	7.59	0.59
Rosco	1981	563,340	1.60	1.24	5.93
Brown	1981	80,846	1.33	1.00	5.35
New Landers	1981	78,347	2.25	1.30	3.21
S. Tallon	1981	426,694	0.98	0.63	4.42
Barr	1981	254,016	8.50	3.76	0.88
Frank	1973	6,006	1.00	0.71	1.23
Jersey	1981	26,333	5.88	2.61	0.42
Towers	1979	636,033	13.26	5.44	2.46
Newgard	1981	1,204,015	1.27	0.72	3.10
Small Hopes	1980	825,634	2.46	1.61	2.98
Motor	1904	30,191	5.77	2.71	1.60

Dobbins	1976	429,656	12.05	4.64	3.09
Atkins	1981	245,323	3.44	2.06	5.49
Dull	1977	191	1.12	1.37	3.90
Guy	1946	99,105	3.76	1.84	14.26
Quill	1981	388,462	2.26	1.34	4.32
Henry	1979	35,172	7.83	5.08	1.90
Steve	1981	18,884	1.90	1.01	8.45
Roger (2n)	1979	665,549	2.64	1.50	7.24
Stanley	1957	1,891,285	7.80	3.30	9.23
March	1936	4,735,765	12.03	5.22	2.25
Dobbins Cave	1953	22,705	2.17	0.85	0.63
Guy Cave	1953	1,039,020	0.93	0.40	1.94
-9 Level Miscellaneous Pb	1970	2,725,251	12.80	5.99	2.62
+3 Level Misc Pb	1914	917,940	12.90	6.19	1.04
4 Level Misc Pb	1917	350,191	10.57	5.18	1.55
5 Level Misc Pb	1919	600,573	10.82	5.62	1.57
6 Level Misc Pb	1943	580,676	11.20	5.52	2.26
7 Level Misc Pb	1926	478,687	11.34	4.21	1.69
8 Level Misc Pb	1942	1,849,625	12.38	5.44	4.90
9 Level Misc Pb	1922	135,042	13.61	6.10	2.60
Miscellaneous (Zn)	1968	44	0.19	0.32	0.54
Miscellaneous [Pb-Zn)	1958	1,560	3.70	2.20	1.40
Andy	1970	22,318	1.16	0.92	6.35
Total Mine Production		**35,799,448**	**8.84**	**4.55**	**3.66**

5.4 HISTORIC MINING AT BUNKER HILL

The primary access to the Bunker Hill Mine is the 10,000-foot (3,048 m) Kellogg Tunnel at the 9 Level elevation. A shaft extends down to the 31 level with the 29 level being the deepest developed level. The 29 level is 4,000 ft (1,220 m) below the Kellogg Tunnel. Over the 100 years of production, various mining methods have been used at the past producing Bunker Hill Mine. These include:

- Square set cut and fill;
- Captive cut and fill with classified mine tailings as backfill (below 8 Level only);
- Shrinkage mining without backfill (above 8 Level);
- Sub-level blast hole (Long hole) mining;
- Sub-level caving (Guy Cave)

Square-set cut and fill was likely the original mining method from the 1880s. The veins were mined with sets of timbers used as ground support which were then buried by sand fill pumped down from the surface. After backfilling, the next level above the sand was mined. The broken material was slushed to chutes where it dropped into passes to the level below. In other areas, a pillar mining method was used. Instead of timber as support, rib pillars were established. Sand fill was pumped in to provide the floor for the next cut. As the material was blasted, compressed air operated mucking machines transported it to a chute in the stope where it dropped into a pass to the lower level.

In the upper areas of the mine, sub-level blasthole stoping was used. Trackless equipment was used to cut levels at 40 foot (12.2 m) spacing. Long holes were drilled in the pillars between levels. The holes were blasted, allowing the material to fall to the bottom of the stope, where it was scooped by LHDs, which, depending on the area of the mine, either transported it to passes connected to the mine rail haulage system or place it on trucks for transport directly to the surface.

For mining areas above the Kellogg Tunnel, broken material was hauled by trackless equipment to one of two central passes which stored the material until it could be chute loaded into the main track haulage system operating in the Kellogg Tunnel.

For mining areas below the Kellogg Tunnel, trains powered by battery locomotives transported the material to bins located at the inclined hoisting shaft. In the shaft, skips were loaded and hoisted to skip dumps located above the Kellogg Tunnel level where the material was dumped into two large concrete bins until it could be chute loaded into the main track haulage system operating in the Kellogg Tunnel. Drawn from these storage areas by gravity, the material was chute loaded into 22 car trains pulled by 15-ton diesel locomotive and trammed two miles (3.2 km) to the surface process plant bins. The material was then processed by the Bunker Hill process plant to produce concentrates.

After 1970, diesel-powered equipment was utilized in parts of the lower mine to improve productivity and access to selected areas. In 1972, major production was resumed using bulk mining methods in the upper mine (above 9 Level), the portion above the Kellogg Tunnel, which had not been worked since the 1930s. The upper mine was partially mechanized with diesel equipment. This area of the mine produced approximately 7,000 tons (6,350 tonnes) per week (45% of total mine production) through April 1977. The upper mine was then placed on a care and maintenance basis pending improvement in the zinc market. Some production was obtained from the upper mine in the period 1978 to 1981 by extracting previously broken mineralization.

Following a 1977 strike, the lower mine resumed operations at a production rate of approximately 9,000 tons (8,165 tonnes) per week. Through April 1977, the flotation process plant operated on a three-shift basis, seven days a week, at approximately its full capacity milling rate of 2,300 tons (2,087 tonnes) per day. The concentrates produced were transported to Bunker Hill Mining Company’s lead smelter and zinc plant by railway.

The Mine and Smelter Complex were closed in 1981 as result of weak commodity prices, failure to renew labor contract, and increased environmental regulation. The Bunker Hill lead smelter, electrolytic zinc plant and historic milling facilities were demolished about 25 years ago, and the area became part of the “National Priority List” for cleanup under EPA regulations, thereby pausing development of the Bunker Hill Mine for over 30 years. All of the cleanup of the old smelter, zinc plant, and associated sites has now been completed.

The Bunker Hill Mine main level is the nine level and is connected to the surface by the Kellogg Tunnel. Three major inclined shafts with associated hoists and hoistrooms are located on the nine level. These are the No. 1 shaft, which was used for primary muck hoisting for all locations below the nine level; the No. 2 shaft, which was a primary shaft for men and materials in the main part of the mine; and the No. 3 Shaft, which was used for men and materials hoisting for development in the northwest part of the mine. The Company believes that all three shafts remain in a condition that they are repairable and can be bought back into good working order and is in the process of beginning the engineering work to evaluate the strategic optionality of this infrastructure.

The water level in the mine is held at approximately the 11 level of the mine, 400 ft (122 m) below the nine level. The mine was historically developed to the 29 level, although the 27 level was the last major level that underwent significant development and past mining.

5.5 HISTORIC DRILLING

Over the 100-year history of active operations at Bunker Hill over 3,500 drill holes were drilled, logged and assayed. The first drillhole was drilled on the 5 level in 1889. All drill hole information including assays, lithology, and structure was recorded in hand-written drill logs. Bunker Hill has painstakingly digitized the entire body of historic drill hole data and created a digital drill hole database. During the digitization process a collection of assay pulps was located and able to be associated with a subset of the historic drill holes. These pulps were re-assayed and compared to the historic assay data to verify the accuracy of the assay information, details of which can be found in this report.

5.6 HISTORICAL ESTIMATES

Mining operations ceased in January 1991. The Property hosted historical estimates which were categorized using categories other than those set out in §229.1302(d)(1)(iii)(A) (Item 1302(d)(1)(iii)(A) of Regulation S-K). Estimates were categorized as Proven Reserves, Probable Reserves, Possible Reserves and Drill-Indicated Reserves. The main difference between the Historical Estimate classifications and classifications that are reserves stated in accordance with §229.1302(e)(2) (Item 1302(e)(2) of Regulation S-K) are based on the conversion of resources to reserves. Historically, US mining operations such as Bunker Hill were prohibited from disclosing resources.

Proven Reserves. Mineralization is Proven when it has been so exposed by development that its existence as to tonnage and tenor is of a high degree of certainty. A block developed and sampled on two or more sides in which continuity is established to the satisfaction of the mine's technical staff will be considered proven. Similarly, a block developed and sampled on one side as by horizontal or vertical development through which continuity can be established, will be considered proven for a distance of 50 feet (15.25 m) from that development.

Probable Reserves. Mineralization is assigned to the Probable category when its continuity can be reasonably projected beyond the proven classification boundary. A Probable block extends between Proven blocks provided the distance between them does not exceed 100 feet (30.5 m). For a block developed on one side as by horizontal or vertical development and/or close spaced diamond drilling, the total of Proven and Probable mineralization will not exceed 100 feet (30.5 m) from the sampled side.

Possible Reserves. Mineralization is considered to be in the Possible category when its continuity can be reasonably expected to extend beyond the Probable boundary. A Possible block extends between Probable boundaries provided the distance between Probable Blocks does not exceed 200 feet (61 m). For a block developed on one side as by horizontal or vertical development and/or close spaced diamond drilling, the total of Proven, Probable and Possible will not exceed 200 feet (61 m) from the sampled development.

Meyer (1990) included mineralized material in the historical estimates on the basis of a cut-off equivalent to the production cost of mining. This was established at $23.00 per ton for material mined below the nine level. For material mined above the nine level the production cost was set at $20.00 per ton. Metals prices used were $0.40 / lb. for lead, $5.00/oz for silver and $0.65/lb for zinc. Net smelter values were calculated for the three metals using the then current metallurgical recoveries and net smelter payable values. Meyer's (1990, 1991) historical estimates were calculated by the following method: Volumes (and subsequent tonnage) were calculated by vertical projection from level plans of mined out areas. Grades were calculated by averaging the grades on the stope assay map from which the projections were made. The Bunker Hill Mine was an active mine at the time of Meyer's estimations and the procedures used were consistent with mineralization estimates made in other similar operations.

Meyer (1990) has reported on the historical estimate for the Bunker Hill Mine as of July 1, 1990. Meyer's (1990) report estimated that proven and probable reserves totaled 8,266,430 tons (7,499,181 tonnes) grading 2.13% lead, 1.12 oz/ton (38.4 g/t) silver and 4.73% zinc. Possible reserves totaled 2,588,081 tons (2,347,868 tonnes) grading 2.55% lead, 1.39 oz/ton (47.7 g/t) silver and 4.48% zinc. The possible "reserves" included drill indicated material at the Quill and Guy Cave zones.

Meyer (1991) estimated the historical estimates for the Bunker Hill Mine as of January 1, 1991. Meyer's (1991) report estimated that historical proven and probable reserves totaled 5,421,387 tons (4,918,200 tonnes) grading 2.46% lead, 1.37 oz/ton (47.0 g/t) silver and 5.17% zinc. Possible reserves totaled 3,719,722 tons (3,374,475 tonnes) grading 2.20% lead, 1.17 oz/ton (40.1 g/t) silver and 4.94% zinc. The possible reserves included drill indicated material at the Quill and Guy Cave zones.

RDA has reviewed supporting documentation including the date of the historical reserve estimate and the reliability of the estimate. The key assumptions, parameters and methods used to prepare the historic estimates have been reviewed, verified and are understood. The Historic Estimate used categories other than those classified in accordance with §229.1302(e)(2) (Item 1302(e)(2) of Regulation S-K), which are disclosed in this TRS. There are no more recent mineral historic resource estimates available.

6 GEOLOGICAL SETTING AND MINERALIZATION

6.1 REGIONAL GEOLOGY

6.1.1 REGION STRATIGRAPHY

The Northern Idaho Panhandle Region in which the Bunker Hill Property is located is underlain by the Middle Proterozoic-aged Belt-Purcell Supergroup of fine-grained, dominantly siliciclastic sedimentary rocks which extends from western Montana (locally named the Belt Supergroup) to southern British Columbia (Locally named the Purcell Supergroup) and is collectively over 23,000 feet in total stratigraphic thickness. The Belt-Purcell Supergroup comprises, from oldest to youngest:

- Black, pyritic argillites of the Pritchard formation, up to 13,100 ft thick.
- Quartzites, siltite, and argillites of the Ravalli Group, subdivided into the Burke, Revett and St. Regis formations, up to 8,200 ft total thickness. The Revett formation is the almost exclusive host unit to mineralization at Bunker Hill.
- Shallow-water dolomitic quartzites and arenaceous dolomites of the Middle Belt Carbonate Group, up to 6,560 ft thick.
- Interbedded quartzites and argillites of the Missoula Group, up to 1,640 ft thick.

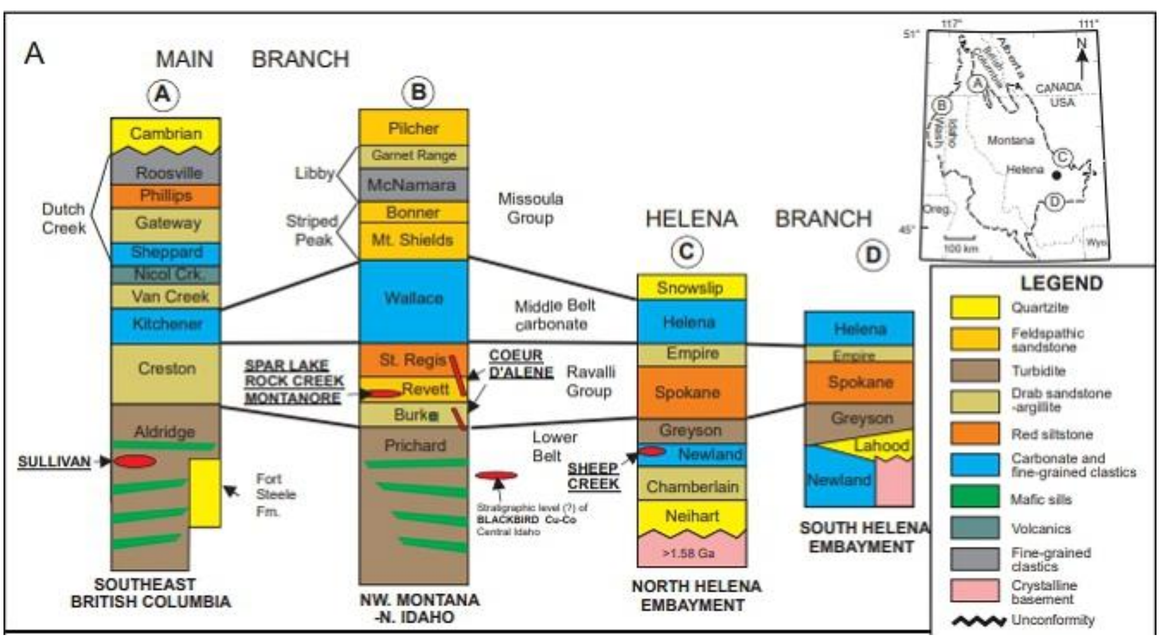


Figure 6-1 Stratigraphic section of Belt-Purcell Supergroup across northern Idaho and western Montana. Mineral deposits noted in red at stratigraphic position of host rocks (from Lyndon, 2007).

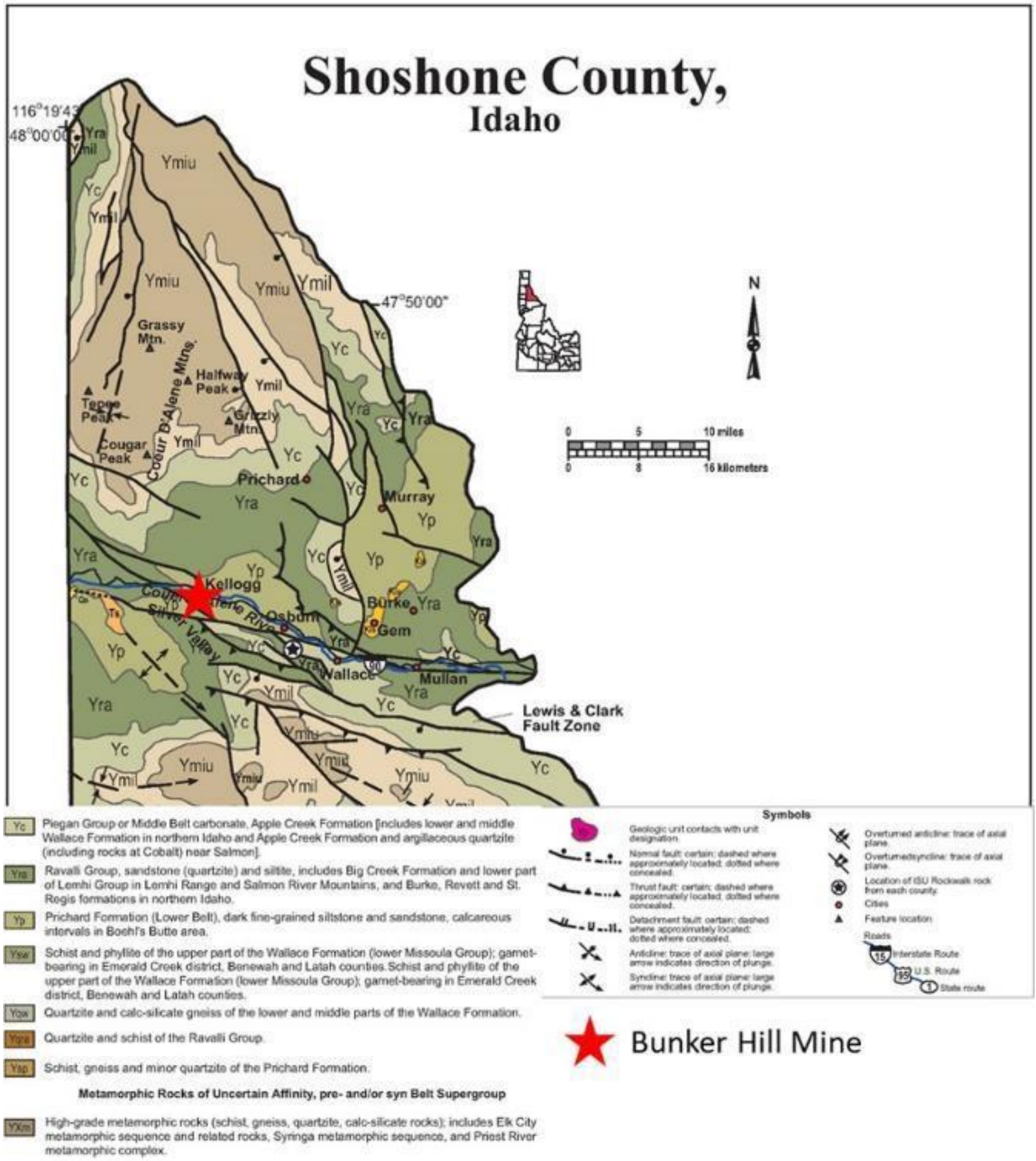


Figure 6-2 Geologic map of Shoshone County, clipped and centered on Coeur d'Alene Mining District, Bunker Hill Mine highlighted in red (IGS 2002).

The sediments of the Belt-Purcell rocks were deposited in an intra-cratonic basin associated with rifting in the interior of the Rodinia Supercontinent. As no known volcanism is associated with this rifting, it appears to be related to lithospheric tension and not the ascent of a magmatic plume in the crust shoving overlying sediments aside, making it a passive rather than an active rift system (Lyndon, 2007).

Contacts between rock units and progression between lithologies show a continuously aggrading sequence of deposition, largely from flooding in fluvial and tidal systems, with no erosional contacts or large-scale channel-scouring bedforms. This indicates deposition in a low-energy, shallow-water environment in a rapidly subsiding, sediment-starved basin with ample accommodation space for sediment inflow. Carbonate units in the Supergroup show periodic connections between the depositional basin and the open ocean allowed for shallow flooding of the entire basin by seawater, although lack of tidal and wave scouring textures or transgressive-regressive depositional and erosional sequences indicate that the connection was never large enough for transmission of tidal or oceanic storm forces.

Individual sedimentary beds and units within the Belt-Purcell Supergroup do not display strong lateral continuity, reflecting active subsidence in the basin and varying sediment sources. Thickening of the stratigraphic units to the south suggests that the basin in which they were deposited was growing at depth and laterally with down-to-the-south normal fault movement of crustal blocks within the basin (White, 1977). Sources for sediments have been identified as coming from the south and southwest for the majority of the life of the Basin.

Burial of the Belt Basin under later sedimentary and igneous rock packages, all now eroded away, lithified and preserved the entire stratigraphic section. Deep burial resulted in low-grade metamorphism, fusing the grains of sandstone together into hard, competent quartzites, and altering clay-rich shales into argillites and siltites (Herendon, 1983). Age dates for deposition of the Belt rocks have been established at 1400-1470 million years ago from U-Pb age dating of detrital volcanic zircon grains (Hobbs, et al, 1965).

6.1.2 REGIONAL STRUCTURE

The rocks of the Belt Supergroup have been subjected to a complex series of deformational events over the 1.4 billion years since deposition, with the focal point of many of these forces roughly underlying the current Coeur D'Alene Mining District ("CDA"). Regardless of which detailed geologic interpretation one chooses to define individual deposits, it is clear that the rocks have seen a complex structural history of folding, shearing and faulting that have given the entire District a deep-seated plumbing system for ascending, mineral-bearing hydrothermal fluids.

The following figures and much of the interpretation are taken from United States Geologic Survey Professional Paper 478: Geology of the Coeur d'Alene District, Shoshone County, Idaho (Hobbs, et al 1965). Structure-1 through Structure-6 are the insets showing progression of structural events in Figure 6-3 and Figure 6-4 below.

The first structural event to affect the Belt Rocks in the CDA ("D1") was compressive forces coming from the southwest and northeast which formed northwest oriented anticline and syncline pairs with a moderate plunge to the northwest, with local overturned folds and thrust faulting (Fig 7-4: Structure-1). Following the formation of the NW trending folds, crustal stresses changed from SW-NE compression to west-northwest and east-southeast ductile shearing ("D2"). This bent and rotated the limbs of the D1 folds, creating kink-folds along the axial planes (Fig 7-4: Structure-2).

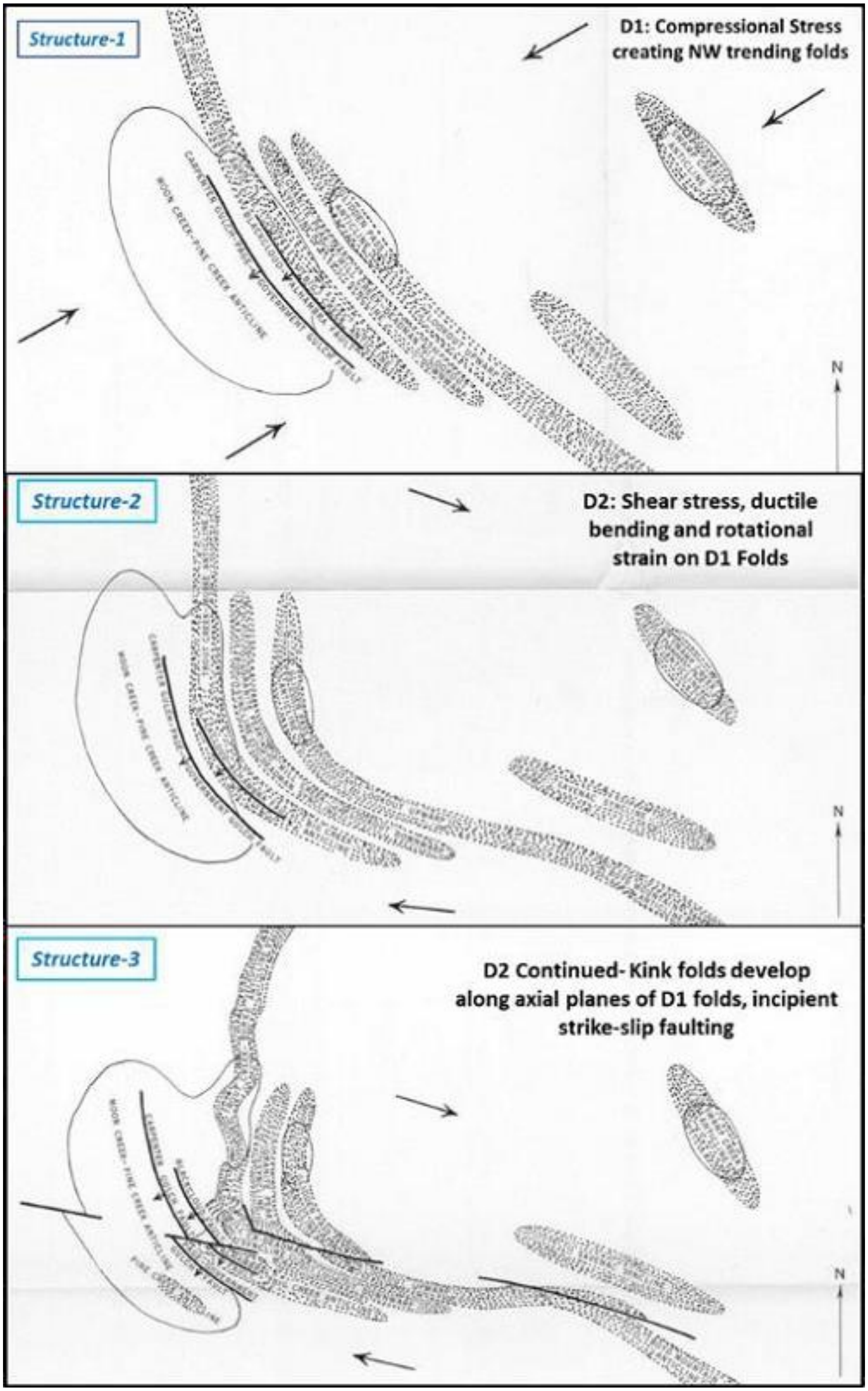


Figure 6-3- (1 of 2) Diagrammatic sequence of large-scale events in the structural history of CDA District rocks

Folding and rotation continued to intensify in a structural knot centered over the current CDA Mining District, with incipient strike-slip faulting beginning to accommodate stress within the plunging hinges and along the axial planes of the D2 folds and rotation centers (Fig 7-4, Structure-3). This was followed by emplacement of monzonite stocks in elongate bodies, roughly parallel to the rotated N-S fold axes, north of the ancestral Osburn Fault (Fig 7-4, Structure-4). These monzonite stocks have been dated at roughly 100 million years old by lead-alpha methods (Hobbs, et al, 1965), placing them in the same Cretaceous age range as the rocks of the Atlanta and Bitterroot lobes of the Idaho Batholith to the south. Much of the mineralization in the CDA Mining District was likely emplaced during this episode of maximum folding and stretching, along with the added heat source of the intrusions. Although there have been many theories regarding the timing, formation and source of mineralization in the CDA Mining District over the 140 years of mining and exploration, the culmination of fold intensity and intrusive emplacement agrees with most all further, more-detailed interpretations.

With continued crustal stresses, discontinuous fractures propagated through the stratigraphic section to become through-going structures. Ductile folding of the rock package ceased as strike-slip movement along these W-NW striking faults accommodated crustal stresses (Fig 7-4, Structure-5). This corridor corresponds with the Lewis and Clark Structural Zone, a long-lived, apparently basement-rooted, westerly trending structural zone cutting across northern Idaho and western Montana (White 2015). Further movement along these westerly faults coalesced into the Osburn Fault, the major structure throughout the Silver Valley and CDA District, which at present position shows as much as 16 miles of right-lateral, strike-slip displacement. The Structure-6 inset in Figure 6-4 shows the current position of the fold axes, faults and intrusive bodies.

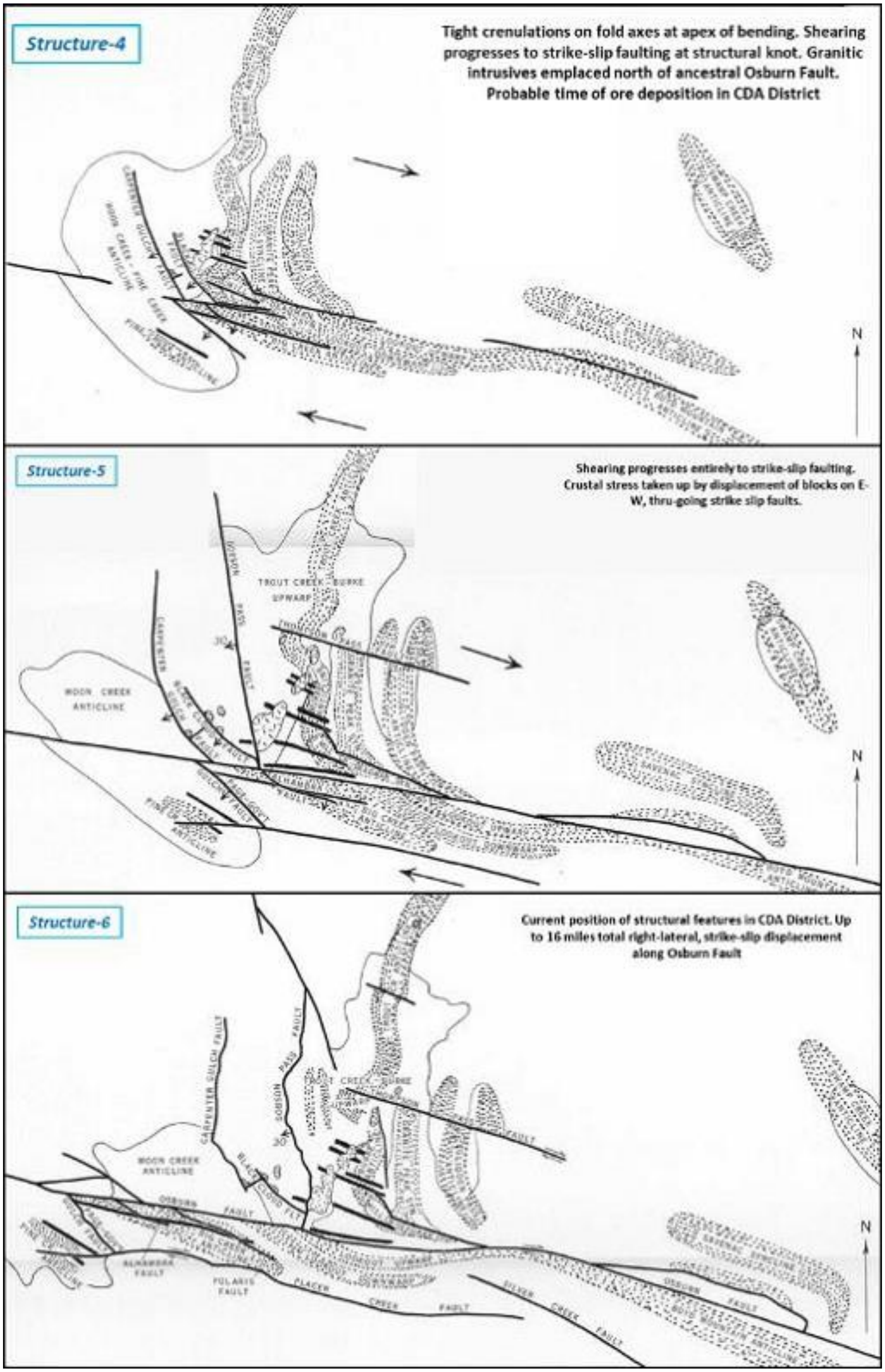


Figure 6-4 (2 of 2) Diagrammatic sequence of large-scale events in the structural history of CDA District rocks Property Geology

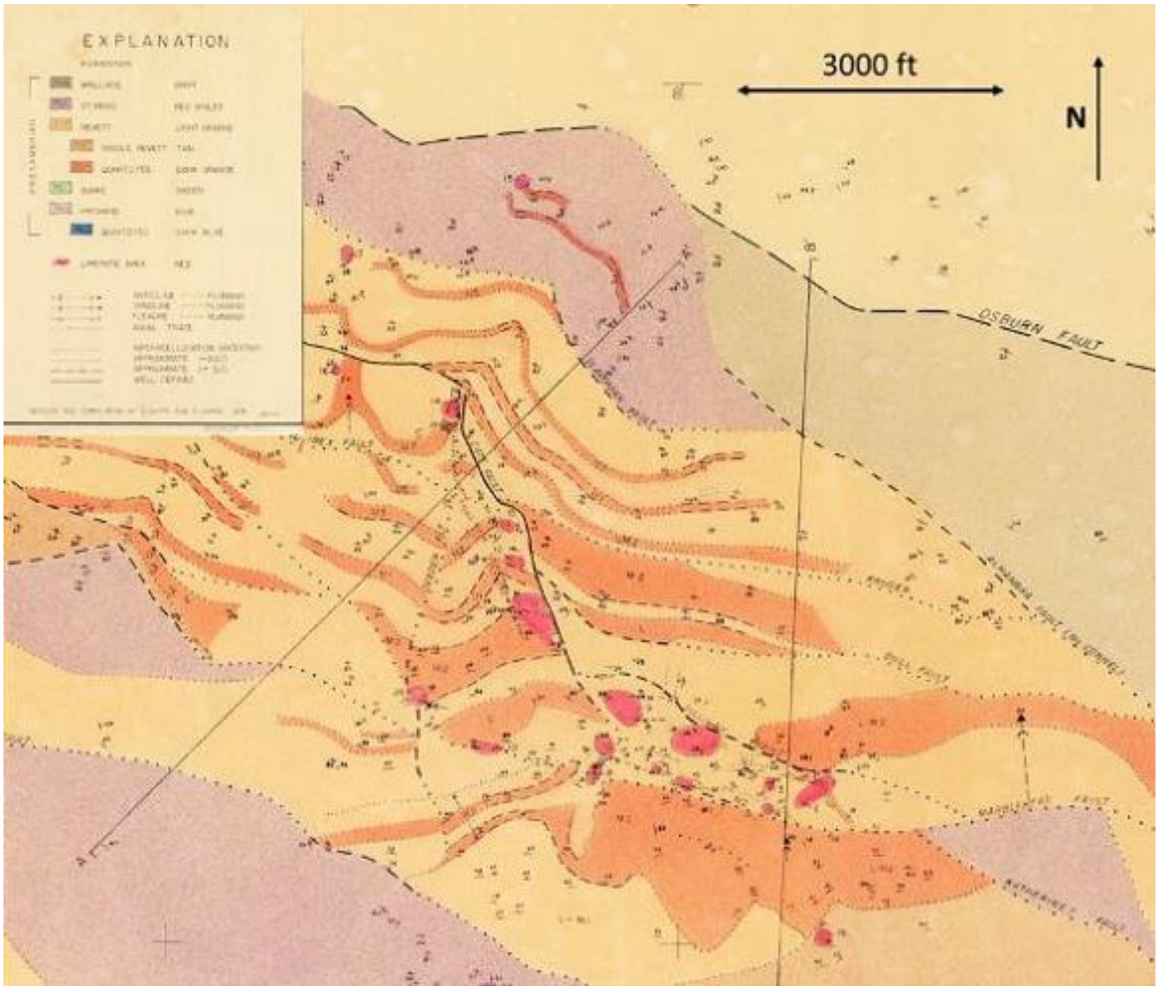


Figure 6-5 Surface geology over Bunker Hill Mine. (White and Juras 1976)

6.1.3 LOCAL STRATIGRAPHY

Mineralization at the Bunker Hill Mine is hosted almost exclusively in the Upper Revett formation of the Ravalli Group, a part of the Belt Supergroup of Middle Proterozoic-aged, fine-grained sediments (Figure 6-5). As the Middle and Lower Units of the Revett formation and the stratigraphically overlying St. Regis formations do not host appreciable mineralization, mine geologists at Bunker Hill did not spend a great deal of time mapping or interpreting these units. As this is still the case as far as known mineralization or exploration targets, the local rock package is restricted to the Upper Revett formation sediments. One west-northwest striking mafic dike has been noted on mine maps in development drifts to the north of any known mineralization, but little is known of this feature and no mineralization or alteration is associated with it.

Given the ubiquitous fine-grained nature of Belt Group sediments in the CDA District, putting together a proper stratigraphic section had always proved enigmatic to area geologists, with correlation between adjacent mines difficult due to discontinuity of units and differences in nomenclature. It was recognized that there are fairly abrupt lateral gradations of compositions and textures within the stratigraphic package, reflecting active subsidence of the Belt Basin and the changing influx of sediments. As has long been informally recognized by mine operators in the Bunker Hill area, preferential host rocks for mineralization are the more competent quartzite units within the Upper Revett formation.

For much of the history of the Bunker Hill, mining focused on mineralized zones and veins that outcropped on surface, and so little geologic knowledge was needed to find or follow these structures. By the mid 1970's, these large mineral bodies (such as the March) had been mined out, and the Company had to develop an exploration plan to locate additional resources.

Following extensive mapping, measured stratigraphic sections and comparison with drill core and mine level mapping during a research program in the 1970's, Brian White developed a detailed stratigraphic section for the Upper Revett formation in the immediate Bunker Hill Mine area that greatly simplified interpretations of structural offsets and eliminated needless ranges of description for rocks of the same lithologic facies (Figure 6-6).

White delineated the rocks in the Bunker Hill Mine area into three lithologic types:

(**Q**) Quartzite: fine-grained, clean and well sorted with a vitreous appearance on fractures, almost entirely quartz with minor feldspar, thick bedded to massive, local crossbedding. Quartz grains fully fused, continuous metal streak with nail scratcher, ideal host to mineralization. Generally white to light gray color.

(**SQ**) Sericitic Quartzite: dominantly fine-grained quartz sand protolith, feldspar and clay content altered and mobilized to interstitial sericite during burial metamorphism. Fairly competent, intermittent streak with metal scratcher, thick to thin bedded, decent to marginal host rock to mineralization. Light to dark gray in color, distinct light green-gray in weathered outcrop.

(SA) Siltite-Argillite: anything that is a dominantly mud, silt or clay protolith, representing a distinct lower-energy, deeper water depositional facies than the shallow-water to sub-aerial, relatively high-energy quartzite units. Thin, planar bedding with local ripple marks and sediment loading textures. Very poor host rock for mineralization unless cut obliquely by vein structures. Highly variable color, generally shades of green with occasional shades or red and purple.

A series of distinct sediment packages were identified in the Upper Revett formation across the mine workings. From bottom to top of the section (Figure 6-6), these are the:

Lower **L-0** though **L-6** quartzites

Middle **M-1** siltite-argillite, **M-2** quartzite and **M-3** siltite-argillite

Upper **U-1,2,3,4** and **5** quartzites and **U-6** siltite-argillite

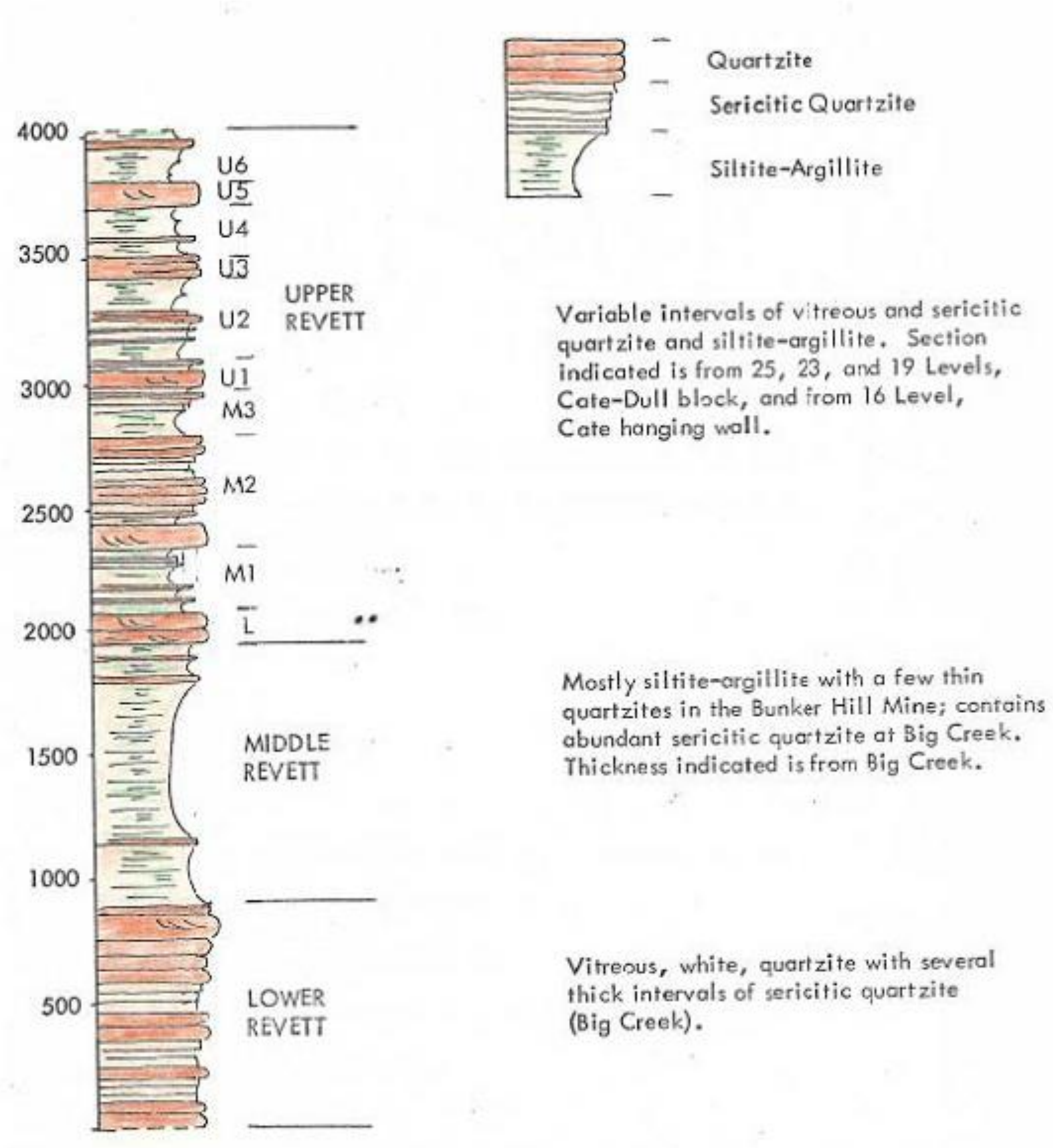


Figure 6-6 Stratigraphic section of Revett formation in Bunker Hill area (White, 1976)

Geologic mapping and interpretation progressed by leaps and bounds following the recognition of a predictable stratigraphic section at the Bunker Hill Mine and enabled the measurement of specific offsets across major faults, discussed in the following section. From an exploration and mining perspective, there were two critical conclusions from this research: all significant mineralized shoots are hosted in quartzite units where they are cut by vein structures, and the location of the quartzite units can be projected up and down section, and across fault offsets, to targets extensions and offsets of known mineralized shoots and veins.

An example of mine level mapping from Bunker Hill Level 17 is shown in Figure 6-7 below. Quartzite packages are the orange-colored units, and the outline of mine workings is in black along the right half of the image. As one can see from the drill holes shown in the center with lithology logging drawn on, exploration efforts in the 1970's were targeting quartzite units at fold hinges and intersections with mineralized structures.

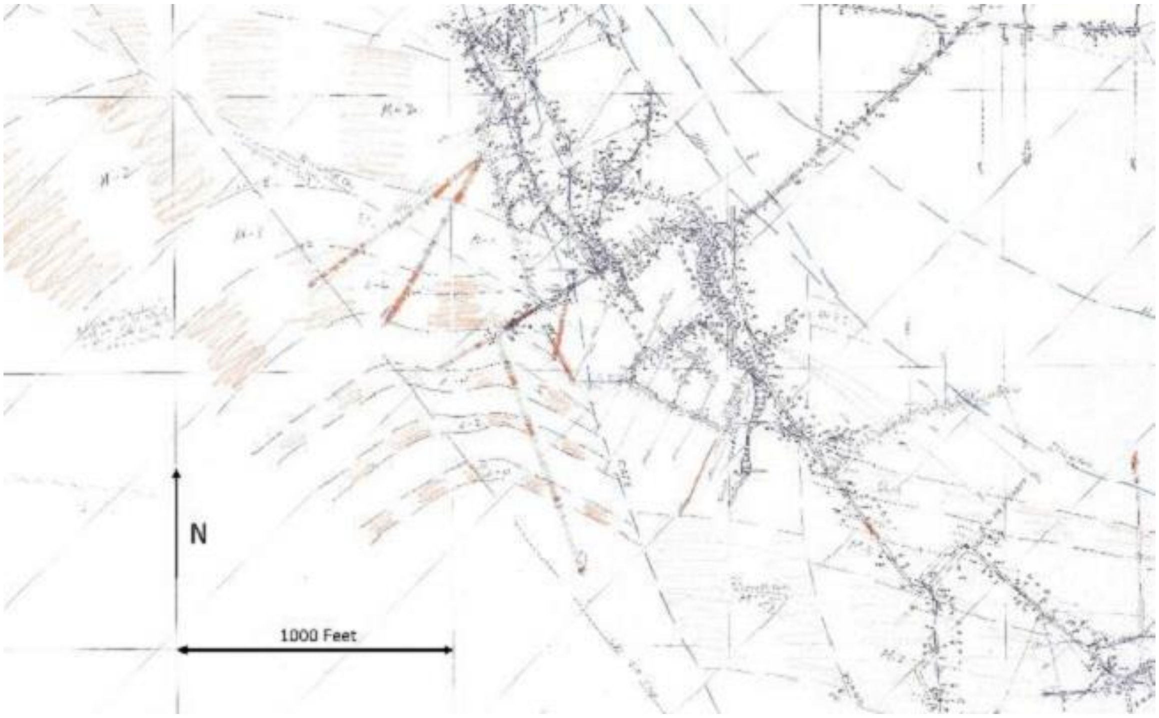


Figure 6-7 Geologic Map of Bunker Hill Mine 17 Level showing quartzite units and exploration drill holes

6.1.4 LOCAL GEOLOGIC STRUCTURE

The rocks of the Bunker Hill Mine have a very complex geologic history, as described in Section 6.1.2 of this report. On a mine scale, many of the regional patterns are evident in local folding and fault offsets.

6.1.4.1 FOLDING

The oldest structural feature evident on the Property is the Tyler Ridge flexure, the anticlinal portion of a parasitic fold on the north flank of a large-scale, northwest-trending fold to the southwest that formed from the D1 event. This fold originally trended W-NW, and plunged gently NW (Juras, 1977).

The next significant structural event to affect the rocks was the upwarping of the Big Creek anticline, an E-W trending fold with a slight dip E. The rocks of Bunker Hill are in the north limb of this anticline, which has been overturned to the north due to compressive stress from the south. The axial plane of the Tyler Ridge Flexure has thus been rotated to plunge to the W-NW at -20 to -35 degrees (Figure 6-8), and the local bedding rotated to be overturned and dipping steeply to the S-SW (Juras, 1977). The Bunker Hill Mine workings lie in the north limb of both the Flexure and the Big Creek Anticline, and mineralization roughly parallels the plunge of the apex of the Tyler Ridge Flexure.

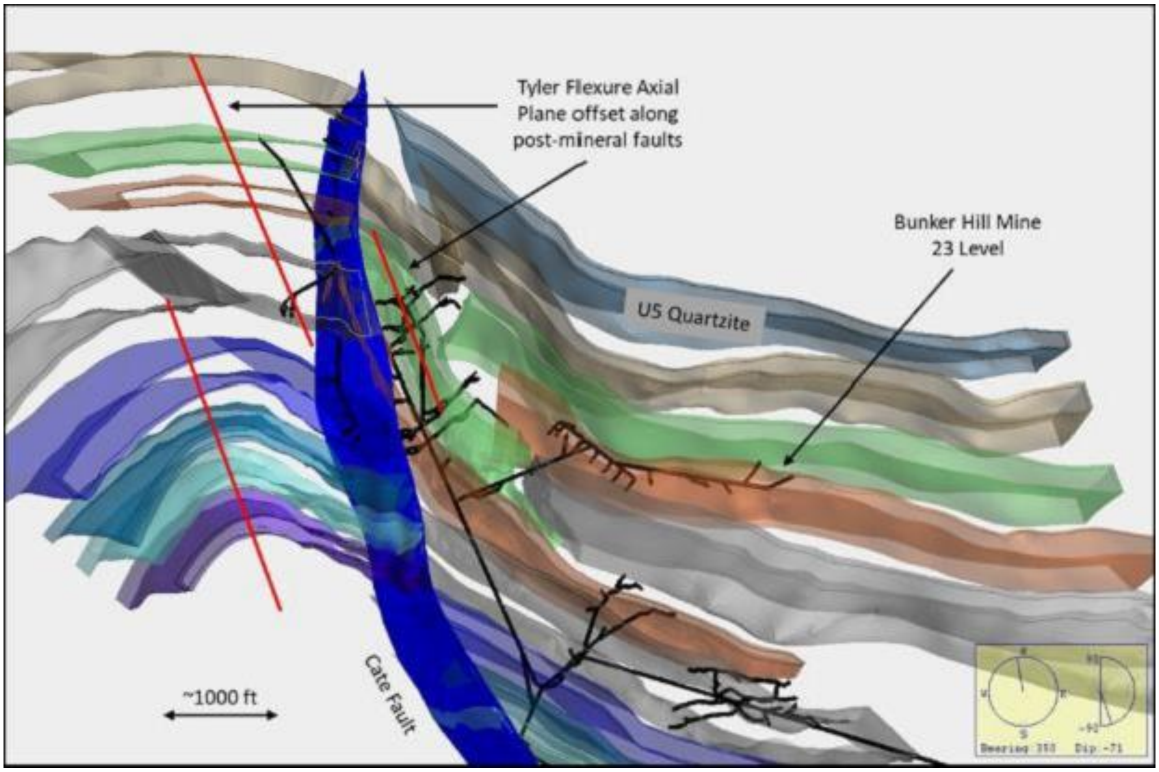


Figure 6-8 Isometric view of Vulcan 3D model of L-0 through U-5 Quartzite units, looking nearly down-plunge on the Tyler Ridge Flexure axial plane, shown as red lines offset by faults. Only Cate fault is shown for simplicity.

Structural preparation in the form of brecciation along the apexes of folds, bedding-plane shearing and faulting, axial planar fracturing, and flexural cracks in quartzite beds of the Upper Revett formation during these two structural events, shown diagrammatically in Figure 6-9 below, was undoubtably critical for the emplacement of mineralization. Some workers have concluded that mineralization at Bunker Hill was emplaced contemporaneously with these folding events. Reports by Dwight Juras (1977, 2020) have indicated that siderite-pyrite-sphalerite veins (Bluebird Veins) formed during this W-NW folding event, and later, cross-cutting argentiferous galena-chalcopyrite-pyrite-quartz veins (Galena-Quartz Veins) were emplaced during formation of the E-W trending, north-verging Big Creek Anticline. Others have argued that metals in the CDA District sourced from a shear-zone type base metal + silver mineralizing system, similar to a shear-zone hosted gold deposit, associated with later movement in the Lewis and Clark Structural Zone, with mineralizing fluids taking advantage of the same structural preparation in the quartzite host rocks (White 1994, 2015).

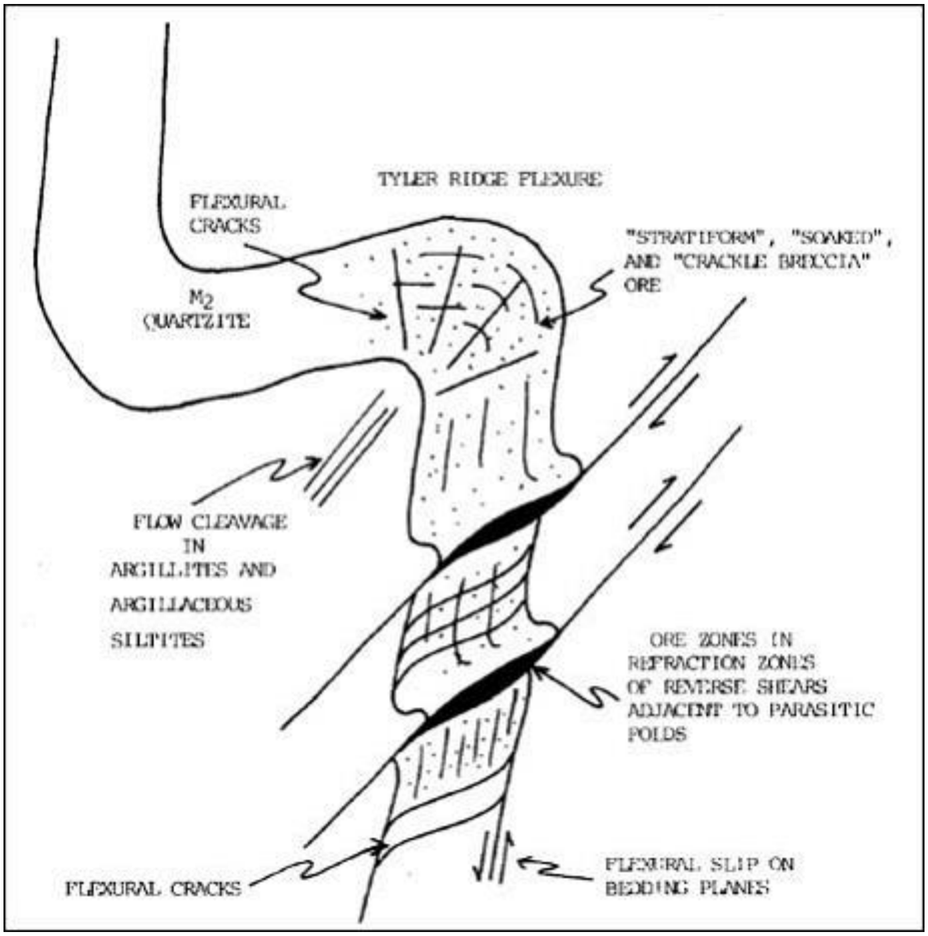


Figure 6-9 Diagram of structural preparation of a quartzite bed from folding stresses (Juras and Duff, 2020)

6.1.4.2 FAULTING

The district-scale Osburn Fault lies immediately to the north of the Bunker Hill Mine workings, striking E-W and dipping steeply south. This fault has had the most recent and significant movement in the CDA District, with up to 16 miles of right-lateral displacement. Because of this movement, and the likely rotation of other fault surfaces and bedding that are cut by it, many of the faults at Bunker Hill appear, in plan view, to be S-SE horsetail splays out of the Osburn Fault (Figure 6-5). This is not the case however, as the other faults in the Mine area pre-date the Osburn Fault and resulted from entirely separate and different stress regimes.

The oldest faults at Bunker Hill are N-NW striking, flat to gently SW dipping, and have from 100-1600 ft of reverse offset, generally to the north or east (Towers, Motor, Sierra Nevada and others). These structures host vein mineralization in some areas where crossing preferential quartzite units, but otherwise cut and offset all vein types in the mine (Juras and Duff, 2020). These are the least understood of the faults at the mine, as it is difficult to represent flat-lying structures with traditional geologic mapping methods, and difficult to drill-test these structures from mine workings at similar elevations.

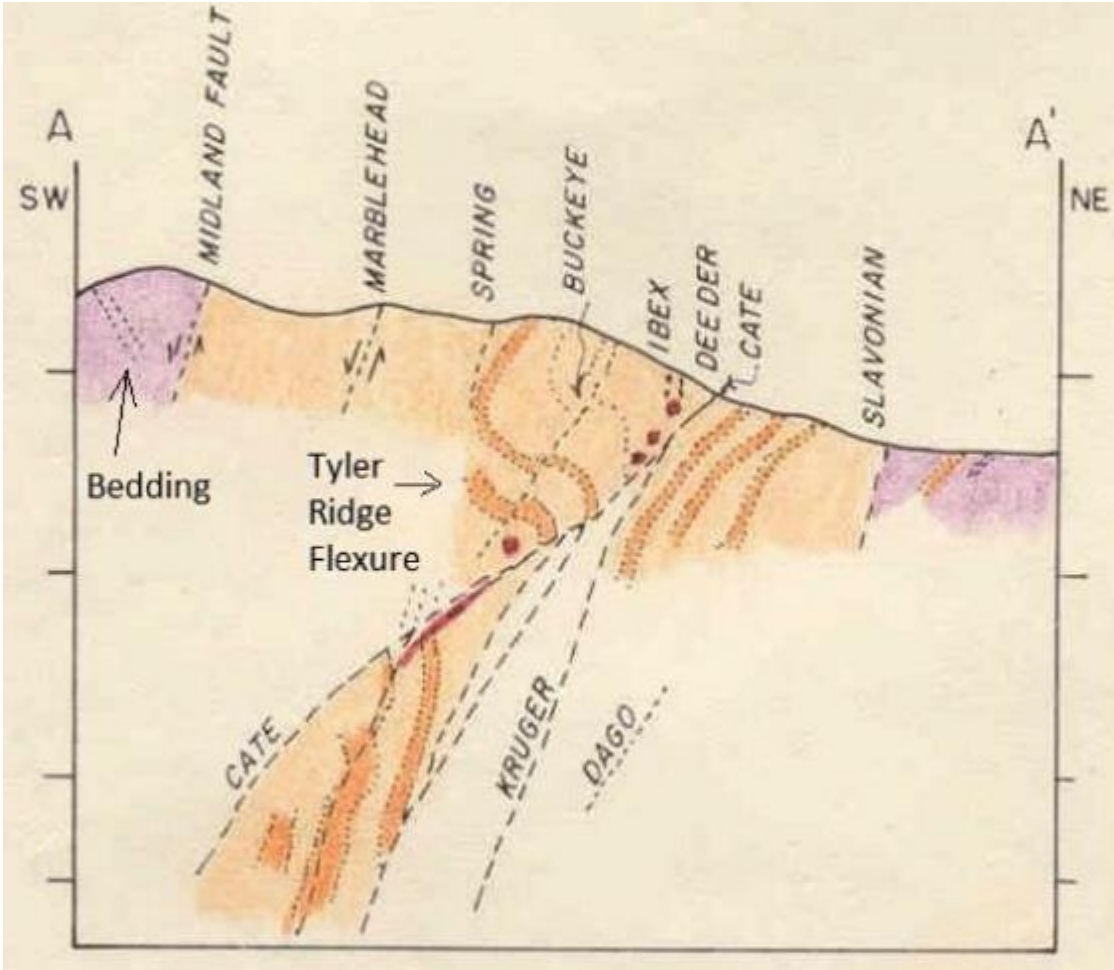


Figure 6-10 Cross-section A-A' looking W-NW, not to scale (White and Juras 1976). Darker orange is quartzite bed in Upper Revett Formation.

The next faulting event is a series of steeply W-NW striking, south-dipping normal faults with significant offset down to the south. The most prominent of these, the Kruger, Slavonian and Dull Faults from east to west (Figure 6-10, Slavonian and Dull are unlabeled fault traces between Kruger and Cate Faults), each have +1000 ft of displacement, and combined with other subparallel faults, the total displacement across these structures is estimated at more than 6000 ft (Farmin, 1977). These faults run subparallel to bedding in the Upper Revett formation, generally staying in the same siltite-argillite bed for great distances until they cross a structural inflection and jump up or down in the section. This factor, along with conspicuously thin zones and limited fault gouge given the amount of displacement, indicates these are largely bedding-slip faults resulting from differential movement between beds during folding. There is a similar set of faults in the hanging wall of the younger Cate Reverse Fault (Marblehead, Buckeye, Ibex and others) that also show down-to-the-south, normal-fault offset. These are likely directly related to the faults in the footwall of the Cate Fault, at least in age and genesis, but the large reverse offset along the Cate Fault has obscured this relationship.

The youngest and most prominent major fault in the Mine is the Cate Fault, a NW-striking, SW-dipping reverse fault with 400 vertical feet of up-to-the-north displacement and some rotational movement (Figure 6-8). This fault likely formed at the waning stages of the northward-verging folding that produced the Big Creek Anticline and seems to have accommodated a transition from ductile to brittle deformation, possibly due to a shallower depth within the crust after up-warping from folding. The Cate Fault is younger than all major folds, faults and veins in the Mine. Movement along the Cate Fault, and more recent movement along the Osburn Fault, has caused slight remobilization along many older structures, resulting in small-scale structural textures that have been troublesome to placing actual structural events in the proper chronological order.

Much of the historic production at Bunker Hill came from W-NW trending, SW dipping veins with sphalerite-pyrite-siderite mineralization ("Bluebird Veins") and hybrid mineral bodies where these veins are cut by later NE striking, SE dipping Galena-Quartz Veins, discussed in next section. Because the Cate Fault follows the trend of the Bluebird Veins, it was thought that the Cate Fault and related structures were the plumbing and driving mechanism behind vein emplacement for the first 90 years of mining. Geologic studies towards the end of major mining operations at Bunker Hill in the late 1970's established that movement along the major faults mapped on surface and underground cuts and offsets all know types of mineralization (Juras 1977).

6.1.4.3 VEINING

The Bunker Hill Mine has largely exploited mineralization that, in a general sense, can be defined as vein deposits. These will be discussed in detail in the following section of this report but are also included here to provide proper structural context. The vein deposits can be divided into two groups based on cross-cutting relationships, orientation and mineralogy (Juras and Duff, 2020):

Bluebird Veins: Earlier event, W-NW striking, SW-dipping (Figure 6-11), variable ratio of sphalerite-pyrite-siderite mineralization. Associated with axial planar fracturing, flexural cracks, and brecciation in quartzite beds along the hinge line of W-NW trending folds. Where mined, these are thick, tabular zones that have abrupt but gradational margins, with fairly solid zones of sulfide mineralization laterally grading to mineralized sheeted fractures and thin stringers along bedding in adjacent sediments. These "Stringer" zones can be large enough to constitute economic mineralization, as in the Guy Cave, UTZ, Newgard and Quill Zones, but they reflect a second-order control on mineralization.

Galena-Quartz Veins: E to NE striking, S to SE dipping (Figure 6-11), quartz-argentiferous galena +/- siderite-sphalerite-chalcopyrite veins, sinuous-planar with sharp margins, cross-cut Bluebird Veins. Large, Hybrid mineralized zones are formed at the intersection of Galena-Quartz Veins with Bluebird Veins, where the Bluebird Vein is enriched in lead and silver by the replacement of siderite by galena.

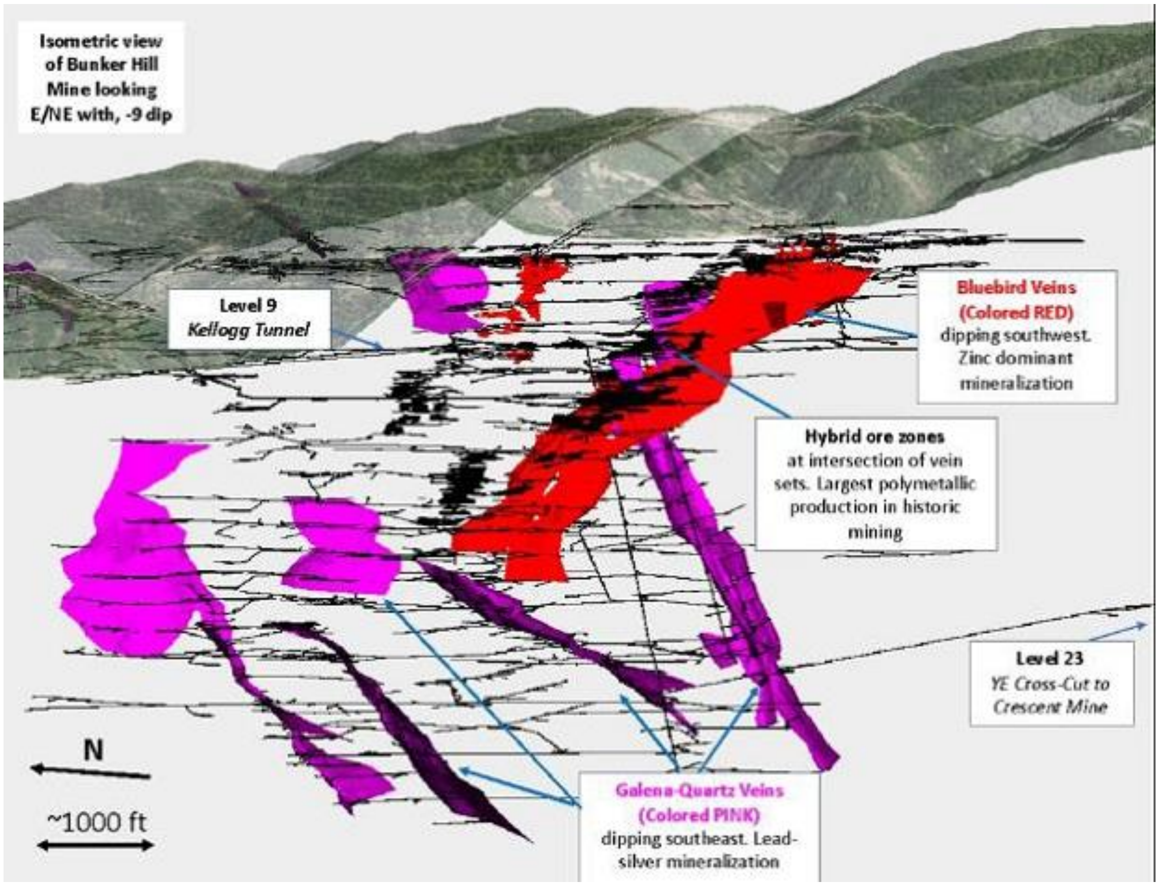


Figure 6-11 Bunker Hill Mine workings with 3D vein models showing difference between Bluebird and Galena-Quartz Vein systems and location of hybrid mineralized zones.

6.2 MINERALIZATION

The Coeur d'Alene (CDA) Mining District has produced phenomenal quantities of silver, lead and zinc, with significant copper, antimony and cadmium byproducts, and a peripheral belt of small gold deposits to the north. This production has come from a spectrum of deposits that reflect the varying structural, pressure-temperature and geochemical characteristics of the mineralizing systems. Mineralization at Bunker Hill has similarities to other mines in the District such as the Sunshine, Crescent and Galena, but represents a distinct suite of structural controls and mineralogy that is probably part of a large-scale zonation pattern.

The Bunker Hill Mine workings extend 8,600 feet along strike of the overturned beds of the Upper Revett formation that host the mineralization, extending 7,000 feet downdip parallel to the axial plane of the plunging anticline, covering 5,200 vertical feet from ~3,500 ft msl to -1,700 ft msl. More than 30 individually named deposits were mined historically in separate stopes, with two distinct types of deposits exploited: tabular Bluebird (BB) zones that parallel bedding and are associated with the fold structures, and later Galena-Quartz (GQ) Veins cutting through bedding with sharp walls. The Bluebird Deposits, such as the March, have been mined for up to 1,400 ft along strike, 4,000 ft downdip, covering 2,400 ft in elevation, with thicknesses of the generally tabular zones up to 150 ft. Galena-Quartz Veins were historically mined along strike lengths of up to 800 ft, and downdip up to 3,700 ft, with mined thicknesses from 5-15 ft.

Virtually all modern metal production at Bunker Hill has come from lead (galena) and zinc sulfide (sphalerite) mineralization, with silver a by-product of lead refining. Historic production in the upper levels of some of the GQ veins came from tetrahedrite (copper-iron-antimony sulfosalt, silver can substitute for copper to create very high Ag values) and cerussite mineralization (lead carbonate, surface weathering product of galena), and silver values in these working likely had some degree of supergene enrichment.

Stopes on the Jersey vein at Bunker Hill encountered oxidized lead-silver mineralization with abundant world-class pyromorphite crystals near their northern extent. Attempts were made to process this material through an oxide circuit at the mill, but the attempts proved to be non-economic. The pyromorphite zone was mined for mineral specimens after the close of major mining operations, and fine pieces from this are undoubtably some of, if not the highest value-per-ton material that has ever been extracted at Bunker Hill, gracing cabinets at most prestigious mineral museums across the world.

Mineralization at Bunker Hill falls in four categories, described below from oldest to youngest events:

> **Bluebird Veins ("BB"):** W—NW striking, SW-dipping (Figure 6-11), variable ratio of sphalerite-pyrite-siderite mineralization. Thick, tabular cores with gradational margins bleeding out along bedding and fractures.
>
> **Stringer/Disseminated Zones:** Disseminated, fracture controlled and bedding controlled blebs and stringer mineralization associated with Bluebird Structures, commonly as halos to vein-like bodies or as isolated areas where brecciated quartzite beds are intersected by the W-NW structure and fold fabrics.
>
> **Galena-Quartz Veins ("GQ"):** E to NE striking, S to SE dipping (Figure 6-11), quartz-argentiferous galena +/- siderite-sphalerite-chalcopyrite-tetrahedrite veins, sinuous-planar with sharp margins, cross-cut Bluebird Veins.
>
> **Hybrid Zones:** Formed at intersections where GQ veins cut BB veins (Figure 6-11), with open space deposition of sulfides and quartz in the vein refraction in quartzite beds, and replacement of siderite in the BB vein structure by argentiferous galena from the GQ Vein.

Mining efforts at Bunker Hill focused on different types of mineralization as discovery, technology and metal prices demanded and allowed. Early mining in the late 1800's was focused on outcropping or near-surface, silver-rich Hybrid Zones and Galena-Quartz Veins. With the construction of a lead smelter in 1917 and an electrolytic zinc recovery plant in the 1920's, the Company began to mine larger tonnage, zinc-dominant Bluebird zones such as the Guy Cave and the UTZ, Quill and Newgard Zones. All galena at Bunker Hill is argentiferous, and the vast majority of the silver that has been recovered over the life of the mine has come from smelting galena. Silver-rich tetrahedrite (freibergite) has been found in some of the shoots on the GQ veins but has not been a major constituent of the overall tonnage.

The four types of mineral zones listed above are truly only two separate structural events: the NW trending Bluebird Veins and the E-NE trending Galena-Quartz Veining. Initial 3D modeling (Rangefront Technical Services 2020) and structural + mineral zonation analysis (Juras and Duff, 2020) has indicated the various vein segments are likely post-mineral offsets of two vein systems that initially comprised four distinct Bluebird Veins and three to five Galena-Quartz Veins.

Although the mineralogy of the two vein types is distinct, and there are significant differences in vein textures and structures that are not germane to this report, the physical mechanism of both types of mineralization is sulfide minerals filling open spaces (Duff, personal communication, 2020). The creation of intra-bed open space by differential movement of a folded rock package leading to a structurally prepared host rock, as shown in Figure 6-9, is one of the main theories regarding the origins of mineralization along these structures (Juras and Duff, 2020).

Quartzite is the primary host to mineralization in all vein types, deposited in open-space caused by refraction of the vein structure as it passes from softer siltite-argillite packages into quartzite units. The vein deflects to cross the quartzite unit more orthogonally, bending to normal with the bedding plane, in essence decreasing the length of quartzite that needs to fracture to continue propagation. Mineralizing fluids ascending the vein structure deposited sulfides in the open-spaces and pressure shadow created by these refractions. Although the veins are commonly mineralized to some degree along their entire length, economic shoots in historic mining operations were largely hosted in these dilated zones in quartzite beds, with the shoot plunging up and down at an orientation defined by the intersection between the vein and bedding (Juras and Duff, 2020).

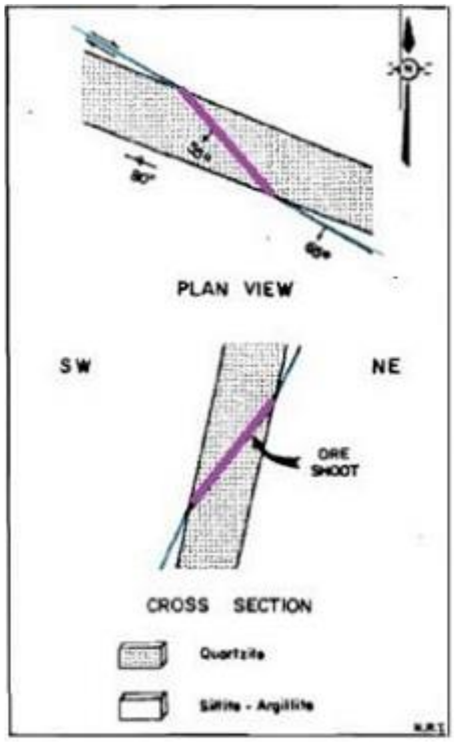


Figure 6-12 Plan view and cross-sectional diagram of formation of mineralized shoot along vein in quartzite unit where rheologic contrast between argillite and quartzite causes refraction of vein surface (Juras, 1977)

The largest historically mined stopes were on Hybrid Zones such as the March, which was mined for more than 40 straight years (Figure 6-11). The large size reflects the open space available to mineralizing fluids, in the form of the refraction shoot created in the quartzite as shown above, and the replacement of siderite (iron carbonate) in the original Bluebird Vein by argentiferous galena from the Galena-Quartz Vein. This essentially replaces portions of the Bluebird vein that are non-metal bearing with lead-silver mineralization, while leaving the zinc deposited during the BB vein event, creating high-value polymetallic grades of mineralization.

6.2.1 ALTERATION

Alteration in the CDA Mining District in general is not as obvious or pronounced as large, predictable zonation patterns that are commonly found around porphyry Cu, epithermal vein Ag-Au, Carlin-Type gold and many other deposit types. There are halos of disseminated sulfide minerals and siderite in wallrock surrounding both BB and GQ vein types, diminishing rapidly away from the vein contact, typically along bedding or pre-existing fractures. Some bleaching is associated with mineralized structures, and limonite staining where they outcrop on surface, but these are largely weathering features on sulfide bearing rocks.

Elsewhere in the CDA District, disseminated carbonate zonation has been observed in vein wallrock, progressing from proximal siderite (iron carbonate) to ankerite (iron-calcium carbonate) to distal calcite (White, 2015). This has not been well documented or commonly observed at Bunker Hill and so is not currently mapped or modeled.

As it is currently understood and observed, there are no distinct alteration patterns at Bunker Hill that can be used for detailed exploration targeting, nor any alteration types that would impede potential future mining operations.

6.3 DEPOSIT

The metallic deposits in the Coeur d'Alene Mining District (the "District") are amongst the most studied in the world due to the prodigious metal production and long history of mining. There are large scale similarities between the deposits as a whole, but each deposit has its own specific structural, lithologic and mineralogical zonation controls. These controls became increasingly well understood at mine-scale across the District in the 1970's and 80's, but regional-scale controls remain enigmatic, conceptual and subject to much academic debate.

In the most general sense, deposits in the District are orogenic, polymetallic veins with lesser disseminated mineralization emanating from the principal veins. There are clearly multiple phases of mineralization, with different causative structural events for each, hosted across the Ravalli Group stratigraphy (St. Regis, Revett and Burke formations) within the District. lead, zinc and silver in varying ratios are the principal metals at all of these deposits, with lesser copper, antimony and cadmium historically recovered.

The veins in the District have been divided into two groups based on metallic mineralogy: a low-silver galena-sphalerite-pyrrhotite-pyrite type, and a high-silver galena-tetrahedrite type (Leach et al., 1998). Prior studies had given ages of 1400-1500 Ma by Pb/Pb isotope modeling of galena from a low-silver type vein (Zartman and Stacey, 1971). In the 1998 Leach Report, gangue minerals from a high-silver type vein were age dated using Ar/Ar and Rb/Sr methods and gave ages as young as ~90-110 Ma). These disparate age dates were explained in that report by two mineralizing events: an earlier low-silver, lead-zinc-silver event during diagenesis and folding in the mid-Proterozoic, and a later high-silver galena-tetrahedrite event in the Cretaceous, associated with emplacement of the Idaho Batholith and smaller, stocks of similar age and composition to those north of the Osburn Fault in the CDA District.

Reports on Bunker Hill Mine Geology by Juras and Duff (2020) note two vein types as well (BB and GQ as described in Section 6), that roughly match the compositional differences and have the same age relationships as the two types described by Leach. Juras interprets emplacement of the earlier Bluebird series of veins at Bunker Hill to be contemporaneous with early W-NW fold development (see section 6), and the later NE Galena-Quartz veins to represent a separate, more brittle structural event, likely related to the E-W Big Creek Anticline uplift.

Both vein sets at Bunker Hill exhibit textures typical of orogenic veins, with no boiling textures or sharp textural differences from pressure-temperature changes, nor any significant wallrock alteration other than disseminations of the vein minerals. The huge vertical extent (3,000-6,00ft+) of mineralization typical of all the vein types in the District strongly indicates that all mineralization was emplaced at moderate to deep crustal levels. Juras and Duff note examples of open-space-filling textures in sulfide minerals in veins in their 2020 report, and classify all of the veins at Bunker Hill as open space fissure veins. If all of these observations hold true, an active fold system is one of the few ways to geologically explain the spaces and pressure shadows necessary to form those open-space cavity-fill textures under the pressures and temperatures present at the time of vein emplacement.

As noted earlier in Section 6, Brian White (1994) has suggested that the entire CDA District is the base metal equivalent of a Shear-Zone hosted gold deposit, with shearing along the Osburn Fault splay of the Lewis and Clark Structural Zone, and heat supplied by the Cretaceous-aged intrusive rocks. In this model the mineralizing fluids travel up metamorphic lineations and take advantage of the same structurally prepared quartzite host rocks and structural pathways as the Juras-Duff model. Since the Juras-Duff Model is built on the same data set currently available to the Company and actively being used for geologic modeling, the fold-associated vein emplacement theory is the geologic model currently being employed to aid exploration and resource delineation drill planning.

7 EXPLORATION

BHMC has a rare exploration opportunity available at the Mine and has embarked on a new path to fully maximize the potential. A treasure trove of geologic and production data has been organized and preserved in good condition in the mine office since the shutdown of major mine operations in the early 1980s. This data represents 70+ years of proper scientific data and sample collection with high standards of accuracy and precision that were generally at or above industry standards at the time.

The Company saw the wealth of information that was available, but not readily usable, and embarked on a scanning and digitizing program. From this they were able to build a 3D digital model of the mine workings and 3D surfaces and solids of important geologic features. To add to this, all of the historic drill core lithology logs and assay data (>2900 holes) were entered into a database and imported with the other data into Maptek Vulcan 3D software.

By digitizing geologic maps of the mine levels, and connecting major faults, veins and stratigraphic blocks, it was possible to put into three dimensions ideas that had previously been confined to the brains of Company geologists, plan maps and paper cross-sections with data projected by hand. See an example in Figure 7-1 below, an isometric view of a cross section along the Bunker Hill #2 shaft, with slices of maps from Brian White's 1977 stratigraphic research program shown in proper georeferenced location for the 9, 11, 13, 15, 17, 19, 21, 23, 25 and 27 Levels.

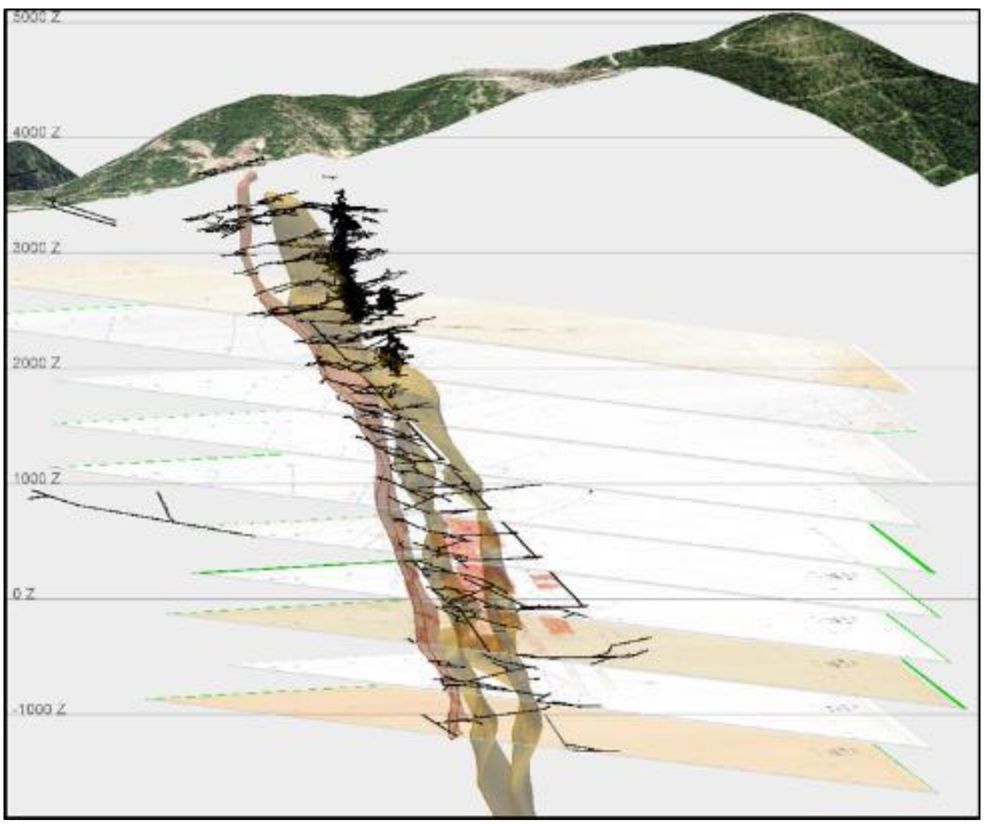


Figure 7-1 1500 ft thick cross-section along BH #2 Shaft, looking at 106 azm, -12 degrees. Mine levels and shafts are black lines, thin dark orange shape between levels on left is 3D model of U-1 quartzite unit of the upper Revett formation, thick orange shape is M-3 siltite-argillite unit. Shapes built directly from original field mapping.

There were a number of research programs at Bunker Hill undertaken in the 1970's to discern lithologic and structural controls on mineralization so as to conduct more effective exploration programs to replace diminishing reserves (White, 1976, Juras, 1977). The Company is now able to apply the knowledge and conclusions from these studies in a far easier and more accurate manner than those which were available to prior generations.

The important lithologic control to mineralization is the quartzite units of the Revett formation. These have now been modeled in 3D from level maps and drill hole data, and post-mineral fault offsets can be reversed to reconstruct the folded position of the host rocks at the time of vein emplacement. Bedding patterns can be matched up at scales that were not noticeable in small-scale detailed field mapping in limited mine drift access. Fault offsets can now readily be determined and measured by positions of stratigraphic blocks. Flat faults that cut all types of mineralization, and were previously difficult to map or project, are now readily apparent in horizontal bends and offsets along units. Not enough work has been done to refine any of the above ideas down to an exact model yet, but the Company has the original data set almost entirely converted to 3D digital format. Figure 7-2 shows models of quartzite beds with offsets along modeled fault planes, cutting through the 9 Level stratigraphic map by White at 2405 ft elevation.

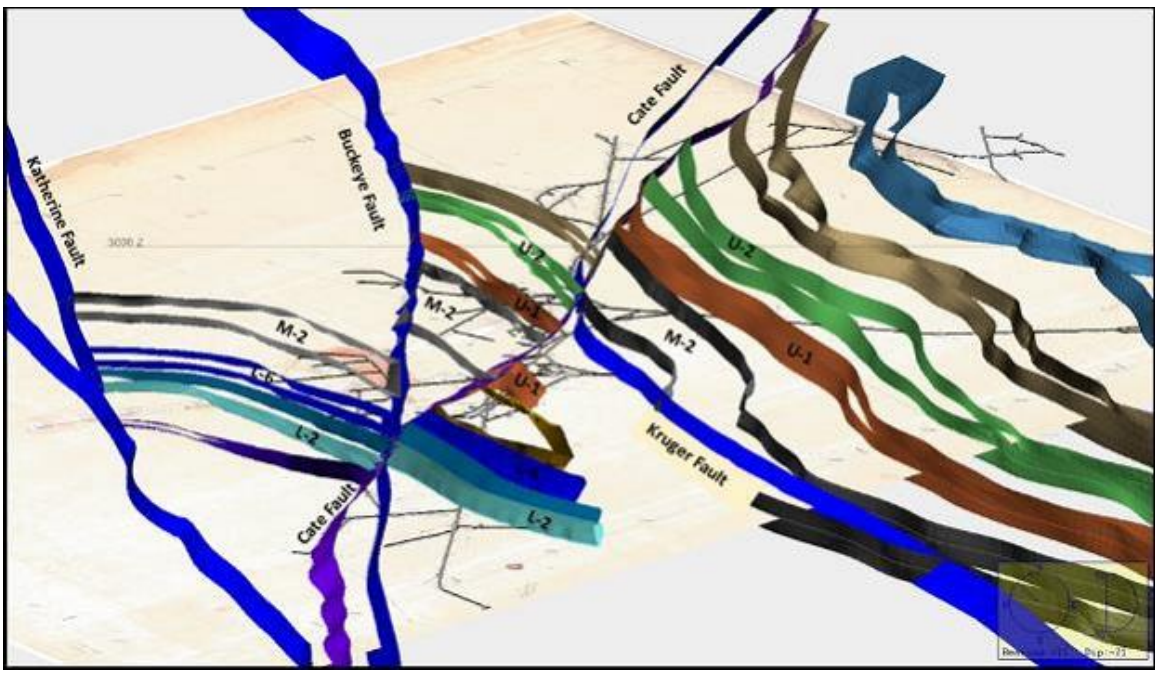


Figure 7-2 Isometric view of plan section through 3D lithology and Fault Models at BH 9 Level. View is looking 311 azm, -21 dip, with 100' window on either side of stratigraphy map at 2405' elevation.

Reversing fault offsets to reconstruct original positions has shown that the Bluebird and Galena-Quartz vein segments are offsets of original master structures for each type. Modeling is currently on-going to determine the proper offsets to reconstruct the original geometry of these vein systems at time of emplacement, which will likely identify previously unrecognized vein segments, and provide clues to locate offset segments of historically mined veins that were never found with exploratory drifting or drilling from underground.

The conversion of so many years of geologic work into a format in which all possible data can be isolated and looked at in 3D at the same time, same scale and same color scheme has allowed Bunker Hill Mining Company to rapidly employ the concepts and ideas of prior generations in exploration targeting, and has allowed comparison of data that was not possible with historic, paper-based geologic techniques. The Company intends to evaluate all of the exploration targets proposed in the waning stages of mining with the newly compiled dataset, and test as many of them as fit within the realities of access and water levels.

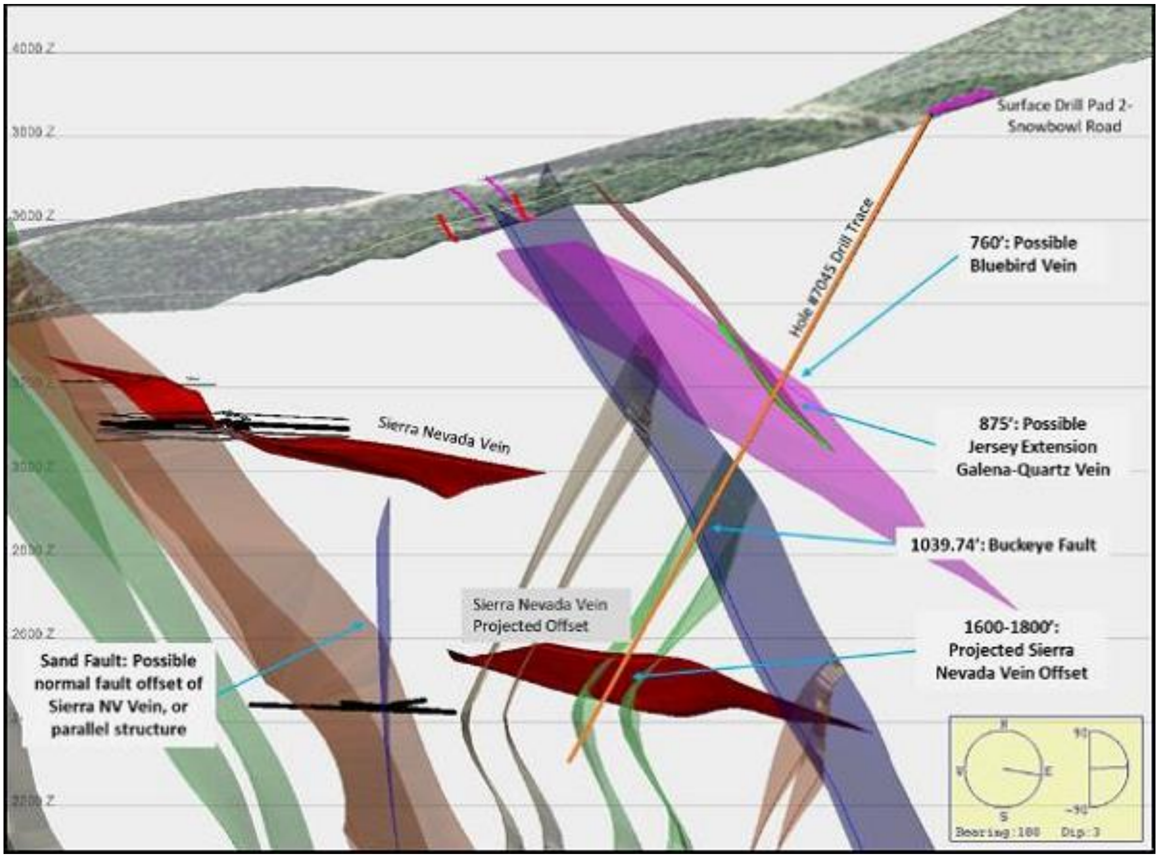


Figure 7-3 Cross-section through Vulcan 3D models along planned drill hole trace showing expected downhole depths of projected geologic features. Historic Sierra Nevada Mine levels in black center right.

Through the use of the now-digitized geologic data, BHMC has been able to conduct exploration drilling between 2020 and 2021, testing some of the proposed structural features. Details on the drilling related to the Quill, Newgard and UTZ zones of mineralization are outlined in this report as data verification and verification drilling of Mineralization. Drilling outside of the Quill, Newgard and UTZ zones has been limited and outside of the scope of this report, as the target areas do not pertain to the mineralized zones detailed in this report.

7.1 GEOPHYSICAL EXPLORATION

In addition to both continued geologic digitization and the completed 2021 exploration drill program, the Company has performed a geophysical survey over the summer of 2021.

The survey was conducted as a ground geophysical 3DIP survey through DIAS Geophysical Ltd out of Saskatoon, SK. The Pole-Dipole array featured electrode spacing of 50m, with current injections completed on 100m spacing. Lines were run NE/SW with a spacing of 150m between receiver lines. Survey specifications can be seen in Figure 7-4.

General Specifications	
Survey Mode:	Distributed Asymmetric 3D survey with CVR
Array Type:	Pole-Dipole
Receiver Specifications	
Electrode 'a' spacing:	50 m
Electrodes per injection:	Approximately 90 to 110
Receiver Sampling Interval:	150 samples per second
Transmitter Specifications	
Current injection spacing:	100 m
Current Remote Location (WGS84Z11N):	565868E/5258958N/1625m
Transmitter waveform:	50 % duty cycle, square wave
Transmitter base frequency:	0.125 Hz (8 s cycle)
Transmitter Injection Location:	Between receiver lines

Figure 7-4 Geophysical Survey Details

The survey was planned to cover a total of ~1,500 acres, but due to delays with challenging terrain, ended up covering just over 1,200 acres. The location of the survey was over the far southwest portion of BHMC's land package, south of all previous historic mine workings and over an area previously un-tested with either geophysical or conventional drilling methods. It is a lithologically diverse section of the property showing outcrops of both lower and middle Belt rocks of the Prichard, Burke, Revett and St. Regis formations. Large reverse and normal faults cross the survey area as well. The dominant structural fabric runs in a NW/SE direction, mirroring that of the known, mapped faults within the historic mine working's footprint to the north. Survey lines were run in a NE/SW direction to traverse this structural orientation as close to perpendicular as possible.

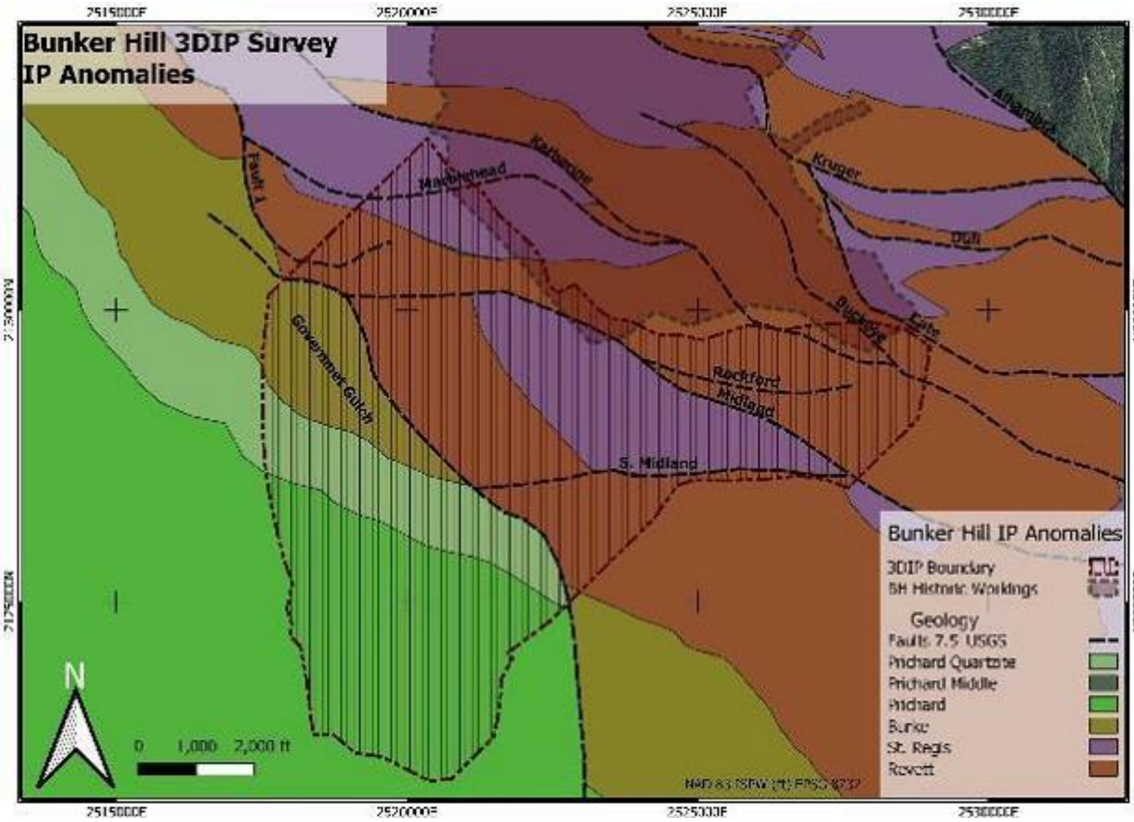


Figure 7-5 Geological Map Showing IP Survey Boundary and Major Lithology and Structure

The relatively tight line spacing and 3D nature of the survey allowed for investigation of both Bluebird and Quartz-Galena Vein styles of mineralization. For details on each, please see the previous chapters of this report. Through initial inversion models, multiple zones of interest were identified. Previous IP surveys conducted on the Property in both 1969 (surface over the Cate fault and Upper Bluebird mineralization) and 1968 (down-hole IP on 2 drill holes in the J-Vein area of the mine), indicated that both Quartz-Galena and Bluebird styles of mineralization share a similar IP response of increased conductivity with low resistivities.

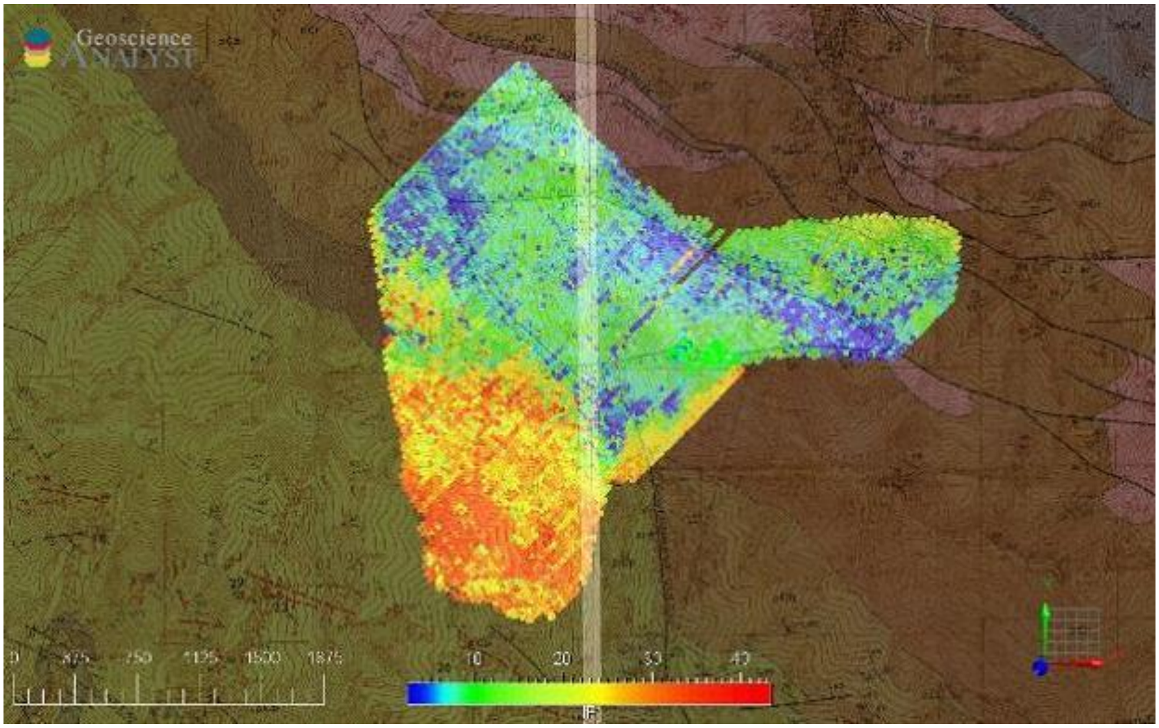


Figure 7-6 Raw Dipole IP Data Over Compilation of Smelterville and Kellogg 1965 USGS Geologic Quadrangle Maps Showing Correlation of IP Response and Lithology. Note IP Response to Major Mapped Fault Structures. Distance Scale in Meters, IP Scale in mVs/V.

Initial data seems to correlate well with previous surface mapping over the surface area both lithologically and structurally. A heightened IP response can be seen in Figure 7-6 to the southwest of the program associated with the rocks of the Prichard formation, a dominantly argillitic sequence of lower Belt rocks. Rocks of the Revett and St. Regis formations lie to the northeast of the Government Gulch fault and can be seen as a variety of IP response levels.

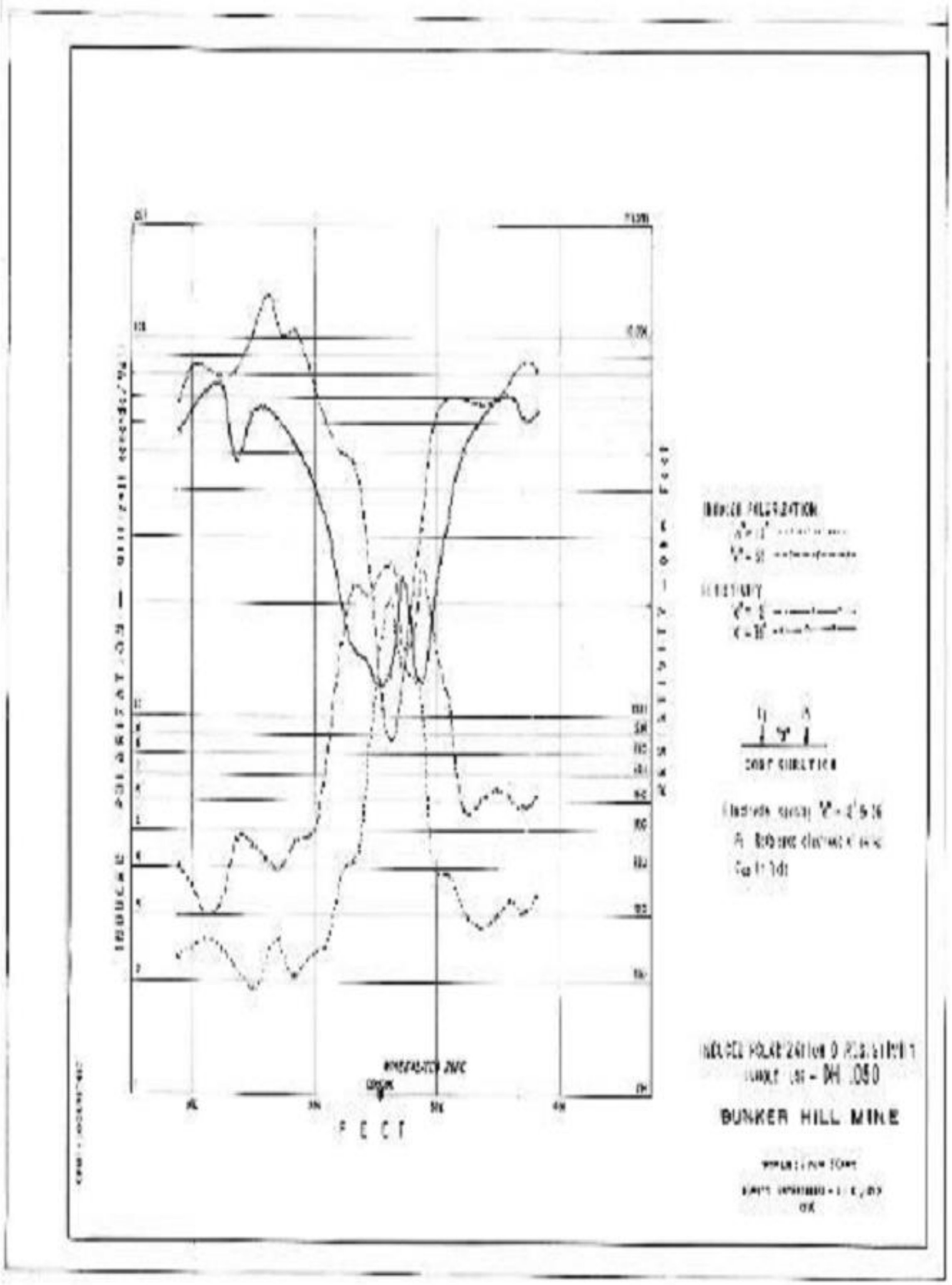


Figure 7-7 1968 Drill Hole IP Survey of DDH 1050. 251'-255.1' Zone of "Scattered to Abundant Dark Sulfide."

It is recommended that the Company continues with further investigations of additional inversion models and target identification over the program area. It is also recommended that the program be followed up with additional EM geophysical survey methods to further correlate known lithology to EM responses. Additional surface exploration activities including conformation of previous Company surface outcrop and float maps, along with trenching of road cuts could work to corroborate shallow mineralization expressions with buried rocks associated with the target responses.

8 SAMPLE PREPARATION, ANALYSIS AND SECURITY

This section does not describe sample preparation, analysis or security measures taken prior to the initiation of the 2020-2021 Bunker Hill drill program. Drilling prior to 2020, actually prior to 1991, was conducted by the owners of the mine beginning in 1898. Drilling records have been maintained since that time. Sample preparation, analysis and security records do not exist. Only assay results and geological logging remain as the records. As noted throughout the report, the Bunker was among the premier mining companies in the United States. Drilling, muck sampling and data analysis was carried out to the highest standards of the time. Review and approval of results went through a hierarchy of engineers and other professionals before being used to estimate mineralization for the mine.

This following describes sample preparation, analysis and security activities conducted by Bunker Hill through 2020-2021.

Drill core samples are cut and prepared by Rangefront employees prior to shipment. Half of the core was returned to the core boxes for archive purposes, while half was inserted into sample bags for shipment to the labs for analysis. Drill core and channel samples were stored in the locked core shed located on the mine site and kept until dispatched to the lab. Access to the core shed is monitored at all times.

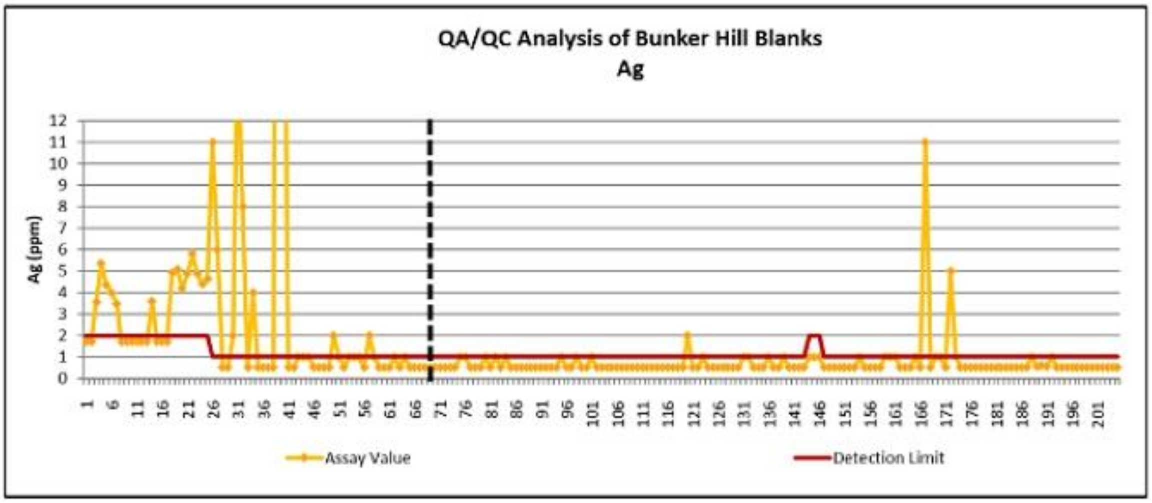
Prior to dispatch, core is measured for recovery and sample identification numbers are associated and assigned. Core intervals are photographed for posterity and accuracy. Half core is cut and bagged with the same sample identification number. Assay results are compared against the submitted sample numbers before acceptance of the results.

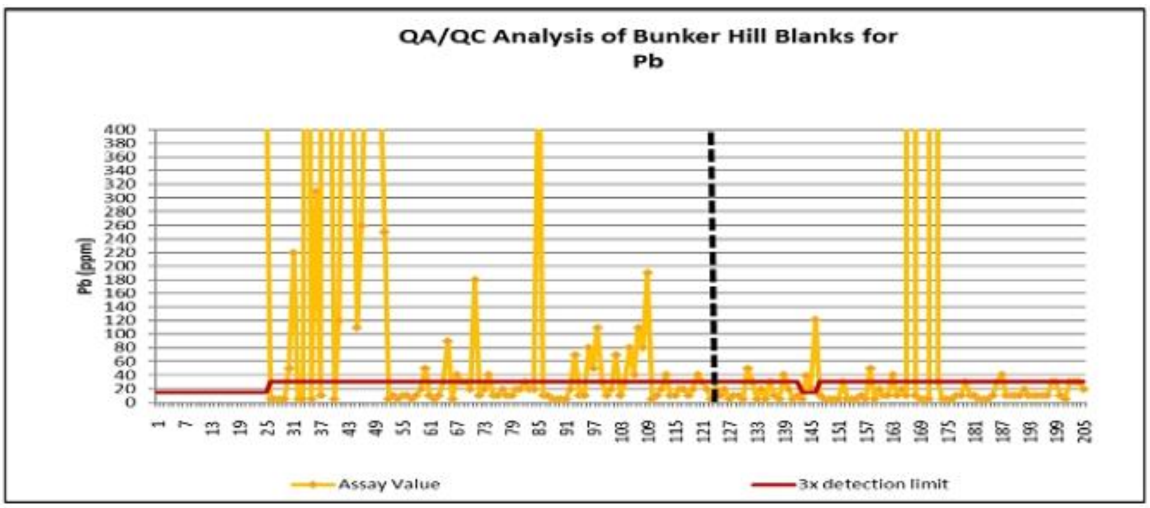
Throughout the project, multiple analytical laboratories performed assays on the 5,067 drill core and channel samples collected. The QA/QC protocol in place, in conjunction with the data collected from the laboratories, determined that ALS Global "ALS" (ISO/IEC 17025:2005) provided the most accurate and repeatable results. Both Paragon Geochemical (ISO/IEC 17025:2017) and American Analytical Services, INC "American" (ISO 17025:2005) were used in the early and mid-stages of the project but failed to yield timely and repeatable results.

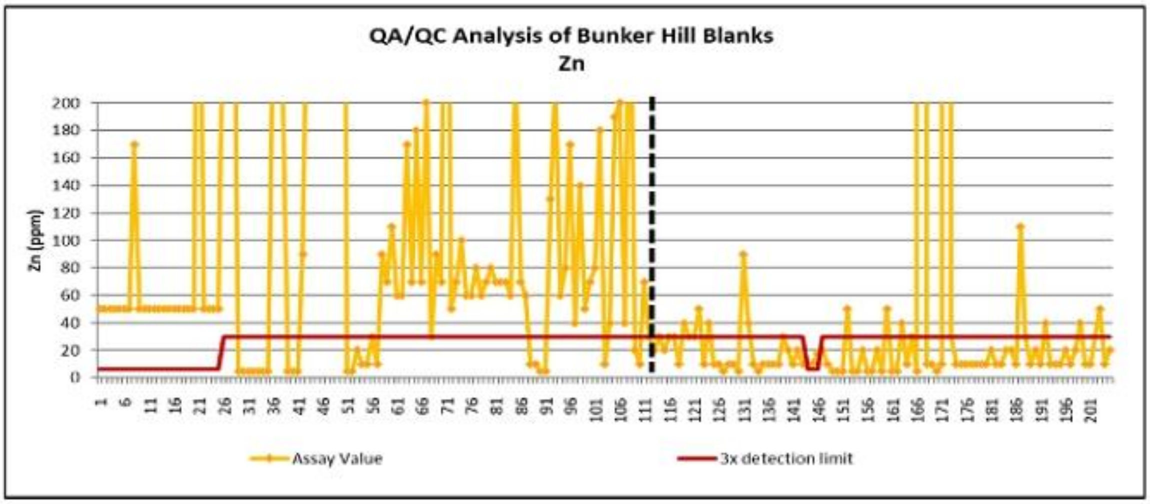
Upon arrival, the laboratory crushed, split, pulverized and screened all samples at 200 mesh. ALS then performed a 4-acid digestion assay (ME-OG62) for silver, lead and zinc on the drill core and channel samples. Finalized results reported to an onsite Rangefront Geologist then entered into the geologic database managed by an independent entity. All results in this report are based on and published with a high level of confidence in the work performed by ALS Global.

Blank material:

Blank material was inserted into the sample sequence at a ratio of 1:20 or roughly every 100' of core/channel sampling. At the start of the project the blank material used was marble Landscaping chips from Ace Hardware. This material failed QAQC due to contamination. Silica sand replaced the marble chips but still showed material contaminations as well. At Bunker Hill's request, the samples sent to Paragon had blank material inserted by the lab. The samples material used were rock chips from a quarry located outside of Sparks, NV. These too had a high baseline for Pb and Zn. Finally, a lab certified blank, OREAS-21e, was used and produced satisfactory and repeatable results. The Ag element did not have the contamination as much as Pb and especially Zn did. The dashed vertical line represents the transition to the OREAS-21e material that is currently being used (right of line). The below figures represent blank data for all drill holes completed between 2020 and 2021 used in the updated December 29, 2021 Mineral Resource Estimate. OREAS-21e arrives in pre-sized packets of pulverized material and therefore did not undergo the preparatory work done on coarse material. It is recommended that Bunker utilize both lab-certified blank material and work to acquire bulk blank reference material that will require a comparable preparation and analysis suite as the non-check material submitted for assay.

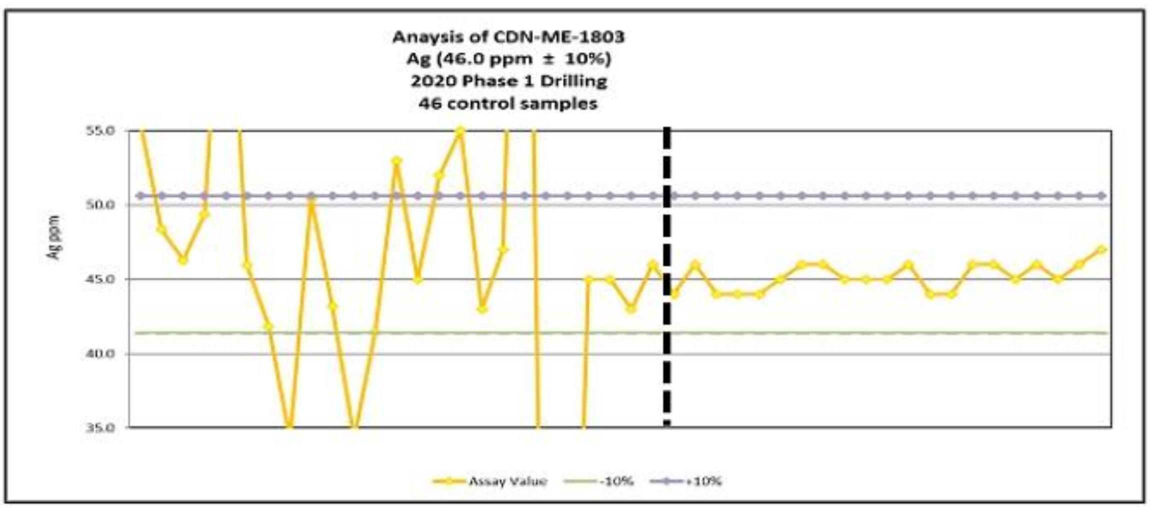


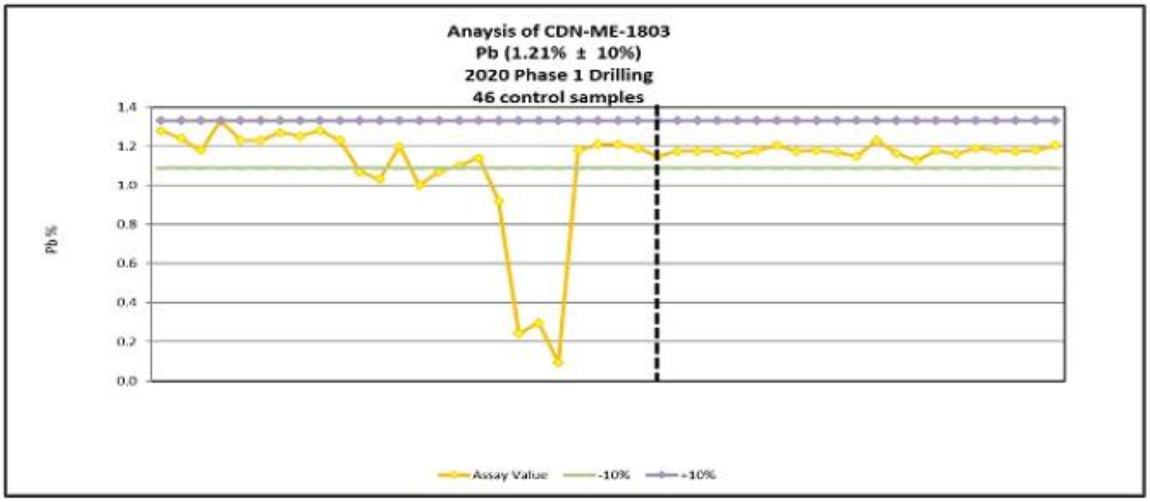


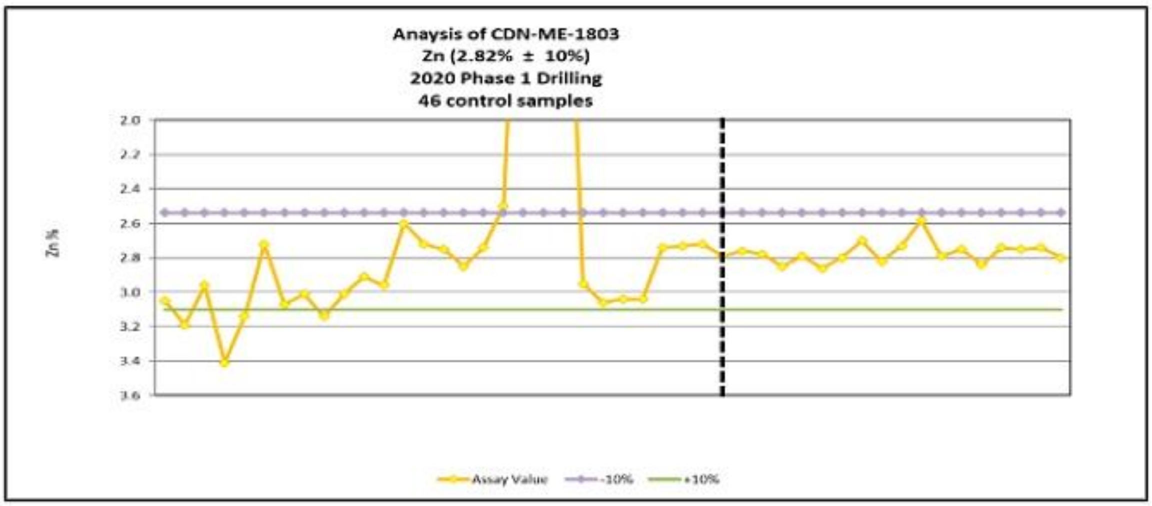


Certified Reference Materials

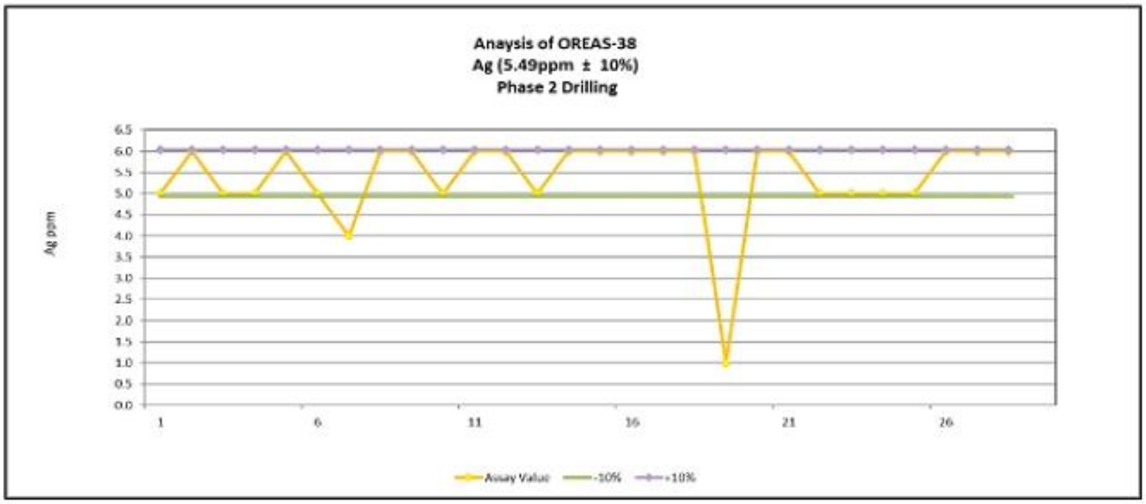
Certified Reference Materials ("CRMs," "standards") were used to monitor the accuracy of the assay results reported by all labs. Standards were inserted into the sample sequence at a ratio of 1:20 or roughly every 100' of core/channel sampling. At the start of the project, two different VMS (volcanic hosted massive sulfide) standards were used from CDN Resource Laboratories Ltd. The below graphs show the accuracy and repeatability issues with the first two labs that analyzed the samples. The dashed vertical line represents the division between the QAQC at American and Paragon (left of line) vs ALS (right of line). The below figures represent CRM data for all drill hole assays completed between 2020 and 2021 with a data cutoff date of October 10, 2021 and subsequently used in the Mineral Resource Estimate with an effective date of November 29, 2021.

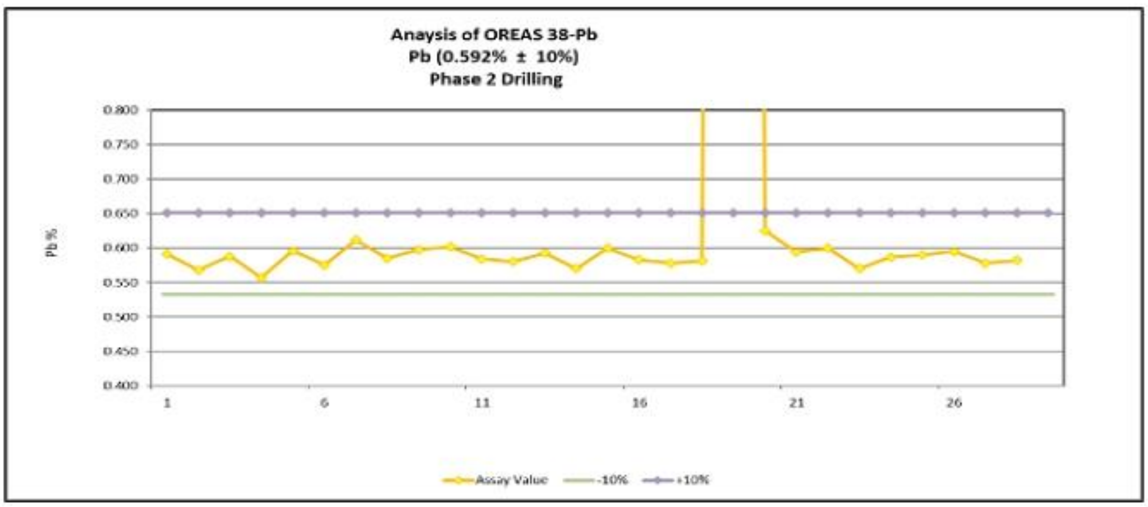


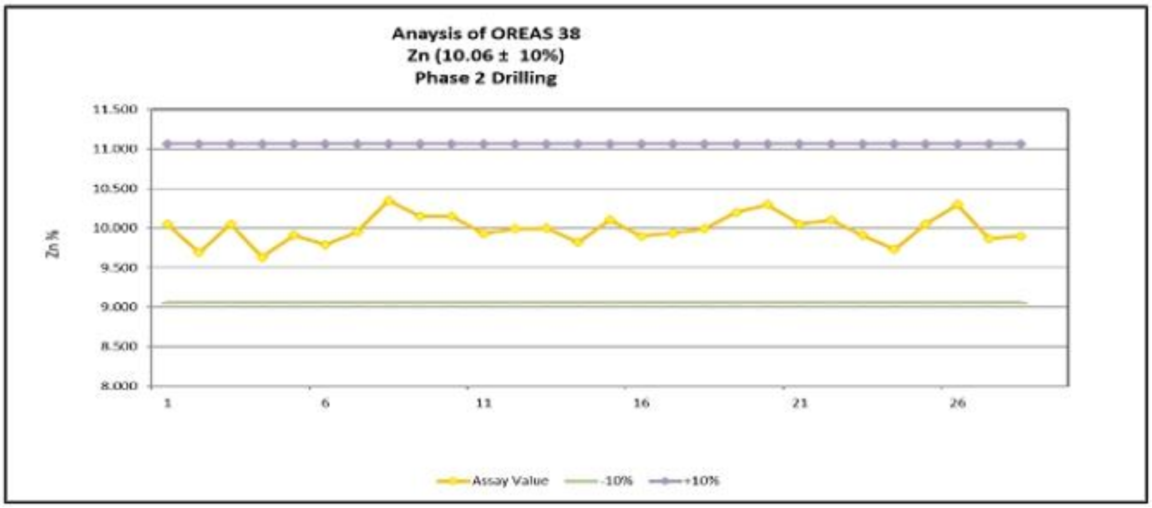




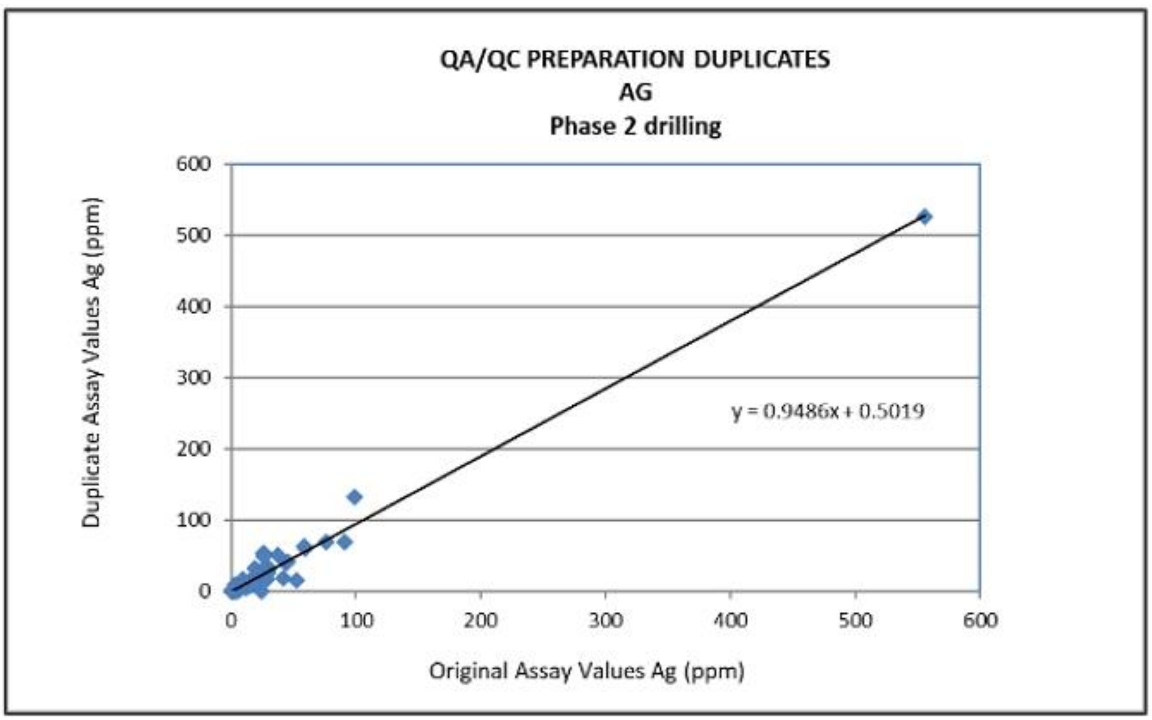
In October 2020, Bunker Hill discontinued the CDN standard reference material and began using four different standard materials from Ore Research & Exploration PTY LTD. This material was of meta sedimentary origin and matched theoretical metal grades from Bunker Hill. Below are the charts that represent the QAQC of the most widely used standard throughout phase 2 of the drill program, OREAS-38.

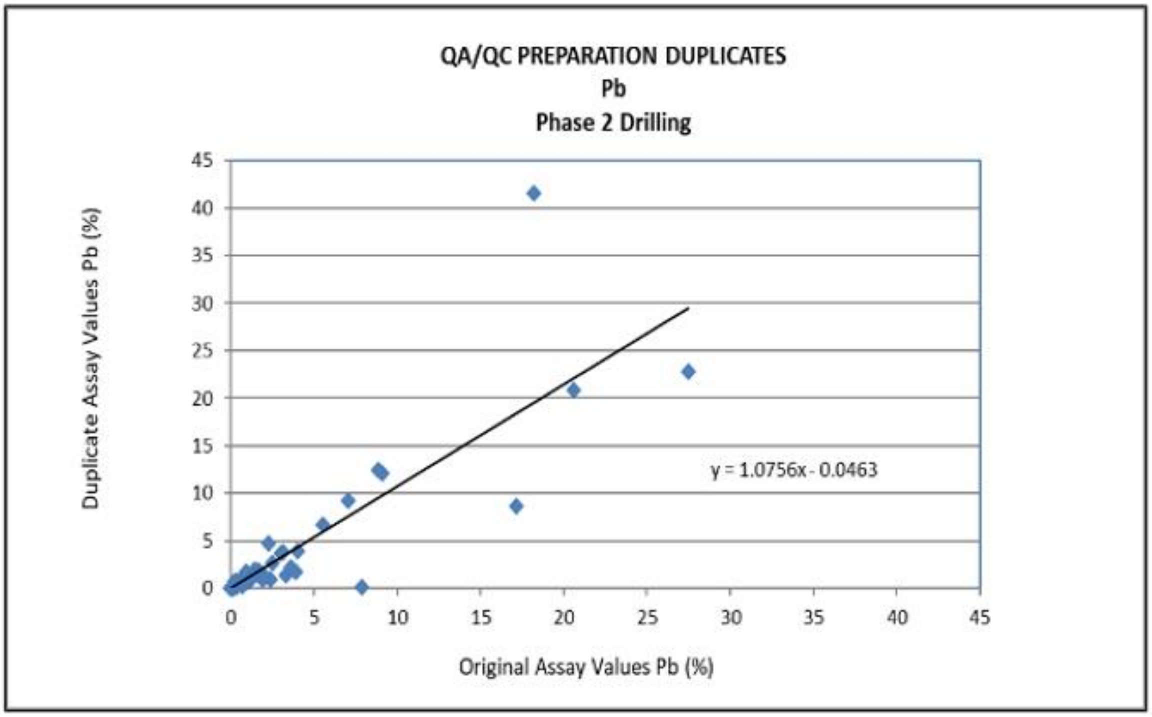

Anaysis of OREAS-38
Ag (5.49ppm ± 10%)
Phase 2 Drilling
Ag ppm
Assay Value
-10%
+10%

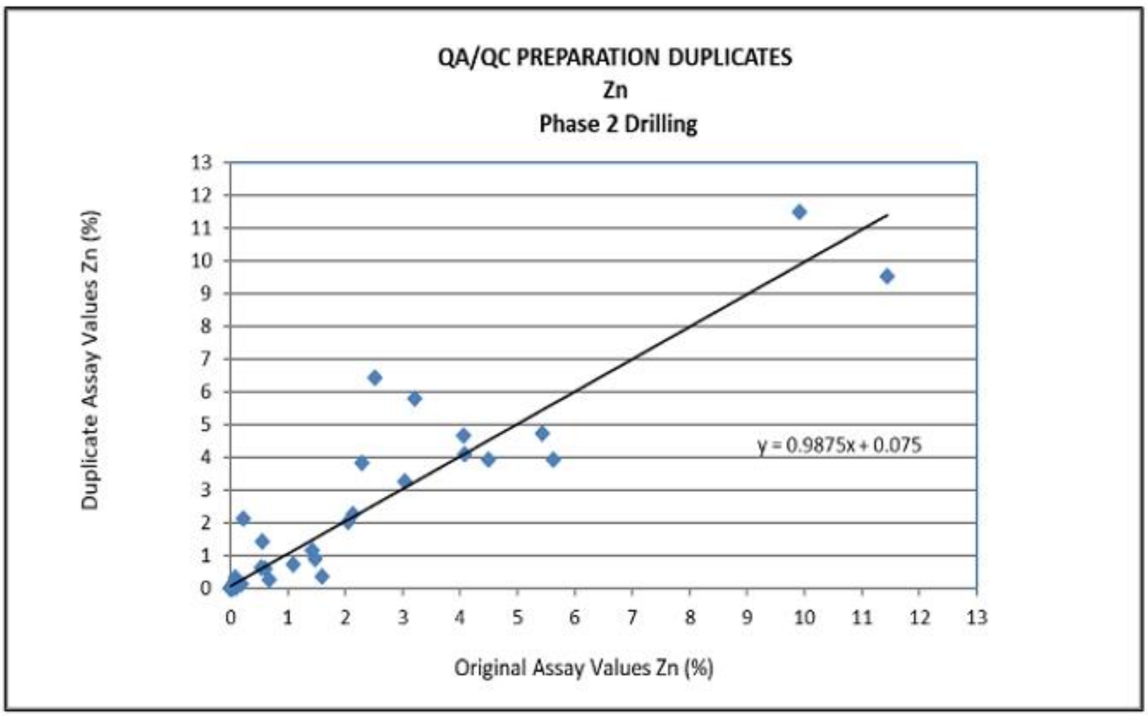

Anaysis of OREAS 38-Pb
Pb (0.592% ± 10%)
Phase 2 Drilling
Pb %
Assay Value
-10%
+10%



Bunker has initiated a duplicate prepping procedure that involves quartering the core. Half the quarter would be collected by hand and put into one bag and the half into another. Due to the nuggety and fractured nature of the mineralization, obtaining an exact duplicate was not achievable. After investigating these results, the core shed obtained a crusher and riffle splitter to make a more homogenic sample for a more accurate duplicate that will tests the lab's repeatability. The below figures represent duplicate data for all drill holes completed between 2020 and 2021 with a data cutoff date of October 10, 2021 and subsequently used in the Mineral Resource Estimate with an effective date of November 29, 2021. All material not passing QAQC variance limits was re-run through the same analysis suite, along with the preceding and following samples adjacent to the failed sample. It is recommended that Bunker maintain a protocol for handling of QAQC failures and work with laboratory personnel to run samples sequentially based on sample number assigned by Bunker geologists.







It is the opinion of RDA that security of the samples remained uncompromised throughout the sampling program. Adequate sample preparation methods and QA/QC protocols are followed. Laboratories performed proper analyses on the samples.

ALS Global testing laboratories are located at 4977 Energy Way, Reno NV 89502.

ALS has no relationship other than that of a vendor to BHMC.

9 DATA VERIFICATION

Mineralization at Bunker Hill was exploited for over 100 years prior to being shut down due to environmental concerns. A producing polymetallic mine stopped production with blasted mineral inventories in the ground. Documentation of a century of historic estimates remain intact to this day. Production records from hundreds of stopes exist to this day. Quarterly and yearly records of depletion, addition and tracking of material produced and delivered to a mill and two smelters is factual and supported by existing records. The bulk of the mine, known mineralization, and hundreds of production stopes are flooded up to the 11 level. Thousands of records of sampling and drilling exist.

The dilemma for any QP, at this particular deposit, is how to prove that existing data may be used for estimation of mineral resources. Sampling and drilling assay results were collected to the best standards throughout the history of the mine. Drilling records including surveyed collar coordinates. Driller names and geologist names are recorded. The actual hand-written log from drillhole # 1, drilled in 1898, is still kept on record at the mine. QAQC protocols are not documented. QAQC protocols were never historically utilized at mines until the 1980’s and 1990’s. It is understood that these protocols are necessary in terms of documenting proof of results in order to detect errors or even fraud, as is so important in the mining business of the 21st century.

The QP will describe the verification procedures employed by:

(1) The data verification procedures applied by the qualified person (described in this section)
(2) Any limitations on or failure to conduct such verification, and the reasons for any such limitations or failure; and
(3) The qualified person’s opinion on the adequacy of the data for the purposes used in the report.

The following sections describe verification procedures recommended by RDA; namely stope block sampling and core drilling. BHMC expended in excess of $4 million for verification of the nature and existence of mineralization at the mine. There were no limitations placed on the QP’s requirements for data verification. In the opinion of RDA, the results of the data verification program conducted at Bunker Hill are adequate and can be relied upon to estimate mineral resources for the mine.

Three important items were evaluated that give confidence that results are appropriate to be used for mineral resource estimates at Bunker Hill.

1. Existing stope block validation
2. Core drilling through known historic areas of mineralization
3. The re-assaying of un-oxidized pulps left over from the last drilling in the late 1980’s

9.1 STOPE BLOCK VALIDATION

In order to gather data in areas inaccessible to drilling (specifically, historic stopes), BHMC implemented an underground sampling program under the strict guidance of a QP. Beginning in March 2020, BHMC launched a significant underground sampling program with the intent of verifying historic assays and data located on the mine site. PMC, owner of the Bunker Hill Mine, granted access to the onsite historic data, as well as underground portions of the mine. Underground channel sample collection began on March 28, 2020. Over the following 3 months, a total of 753 samples were collected across ten levels and sub-levels of the mine. Underground sampling concluded on the June 24, 2020. The underground channel, or chip samples, in conjunction with diamond drilling, substantiated the well-documented mineralization of the historic mine.

9.1.1 SAMPLING TEAMS

Initially, two samplers began sampling using methods described below. Within three weeks, the sampling crew grew from two samplers to a team comprising a sample crew chief and six samplers. As the number of samplers increased, a geologist began to accompany samplers underground daily to perform sample layout, assist with the organized collection of samples and review the work performed.

9.1.2 METHODOLOGY

Collection of samples underground involved a multi-step process beginning with the identification of possible sample locations using historic maps. Targeted stopes fell within the boundaries of the UTZ, Newgard and Quill deposits. Scanned mylar maps provided excellent information about underground sample areas. Occasionally, the sample crew discovered an unmapped drift or finger. However, the maps proved to be roughly 95% accurate.

Upon arrival at a sampling location, the geologist began the orientation process by labeling mined out areas and designating each drift, finger, or pillar with a number using spray paint on the ribs. All such labeling was carefully recorded on field maps created from the mylar scans. In several sampling locations, room and pillar methods of mining left pillars that proved both useful in navigating large pillared "rooms" and simultaneously provided opportune sample locations. Once comfortably oriented, the geologist identified specific sampling locations on ribs (and where appropriate, on the back), where samples could be collected perpendicular to the bedding planes of the rock to accurately define the width of a mineralized interval. Inspection of the orientation of the bedding took place at every interval sampled.

While the geologist identified sampling locations within the designated area, samplers barred down loose rock and mitigated for a variety of potential safety hazards. Occasionally, historic mining clutter (pipes, old equipment, timber, etc.) blocked potential sample sites, necessitating its removal prior to sampling.

Sample layout commenced with the geologist and a sampler using a measuring tape reel and spray paint to indicate 5 ft. sample intervals. Vertical lines were painted 5' apart on the ribs, and a single horizontal line connected the two, to indicate to the samplers where to perform the chip sampling (see Figure 9-1 below). Samples were laid out perpendicular to bedding in 5' sections for as long as there was rock to sample. Prior to painting the ribs, the geologist assessed the stability/safety of each interval. Occasionally, poor ground conditions required skipping an interval where the possibility of rockfall existed. The sampling crew assessed the potentiality for back samples where gaps between the ribs existed. All sample intervals and footages were carefully recorded on field maps.

Initially, samplers approached the sample location with a tarp, a hand sledge and chisel, sample bag, aluminum sample ID tags and a sample tag book. Prior to sampling, the sampler recorded information regarding the sample location including the date, sampler, level and stope, finger/rib/pillar as designated by the geologist, sample interval footage, and rock/mineral description. The sampler wrote the sample ID number on the bag and inserted the paper tag from the sample tag book with the same sample ID into the bag.

Samplers carefully laid the tarp on the sill (floor) beneath the interval to be sampled. Chiseled rock chips removed from the rib or back would fall onto the tarp. Once a sampler removed the appropriate amount of material (between 1 and 10 lbs.) from the sample interval, the chips were collected from off the tarp and placed in the sample bag. The sampler placed the filled sample bag below the sample interval to be photographed and nailed an aluminum tag with the appropriate sample ID number on the right-hand side of the sample interval. Finally, the tarp was removed and cleaned to not cross-contaminate samples, and then moved on to the next sampling interval.

The sampling team quickly realized, however, that the hardness of the host rock (quartzite) significantly hindered the pace of sample collection. The team acquired two battery-operated, hand-held rock saws and, after the geologist performed sample layout, a sampler with the saw made two, 1-inch-deep cuts in the rock roughly an inch apart, providing samplers a consistent edge to chisel easily along the entire sample interval. The rock saw significantly improved the rate of sample collection. And as the number of samplers and rate of sample collection increased, the crew chief, with assistance of the geologist, became responsible for preparing sample bags, recording the sample information, and photographing each interval to streamline the process.

Figure 9-1 Rib sample collected from the 082-25-80 sublevel

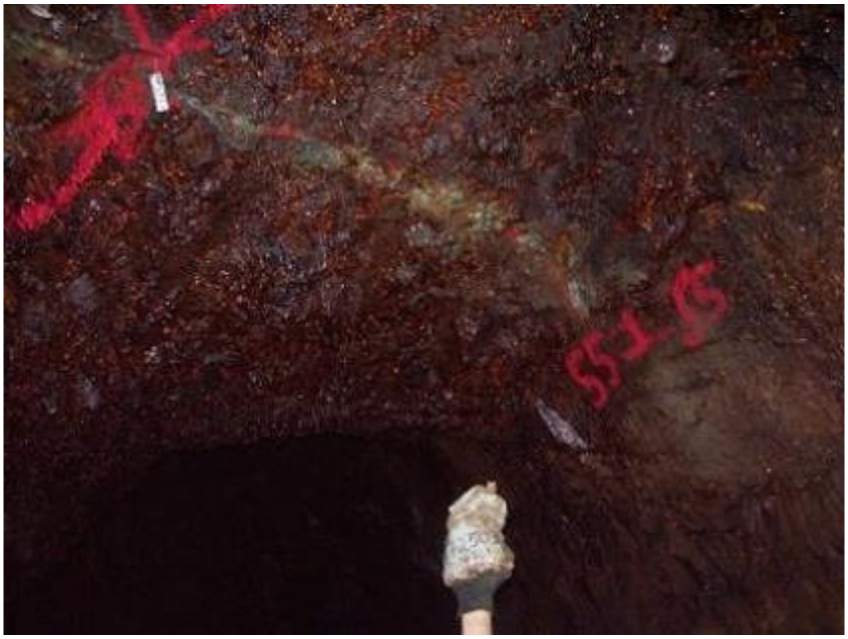


Figure 9-2 Back Sample collected from the 082-25-80 sublevel

At the end of a day of sampling, the sampling crew removed channel samples from the mine and transferred them to the core shed. As soon as the sampling crew accounted for each sample collected, standards and blanks were prepared and inserted in with the channel samples at a 1:20 interval for both standards and blanks.

After the samples were secured, the sample crew chief and geologist entered the data about each sample taken during the day's sampling into an excel spreadsheet. Furthermore, they documented the precise location of each sample using georeferenced AutoCAD DWG files (see Figure 9-3 below) to generate a sample's X, Y, and Z coordinates. Merging the sample's physical location with the assay data proved useful in following mineralization trends and comparing current data to the historic results.

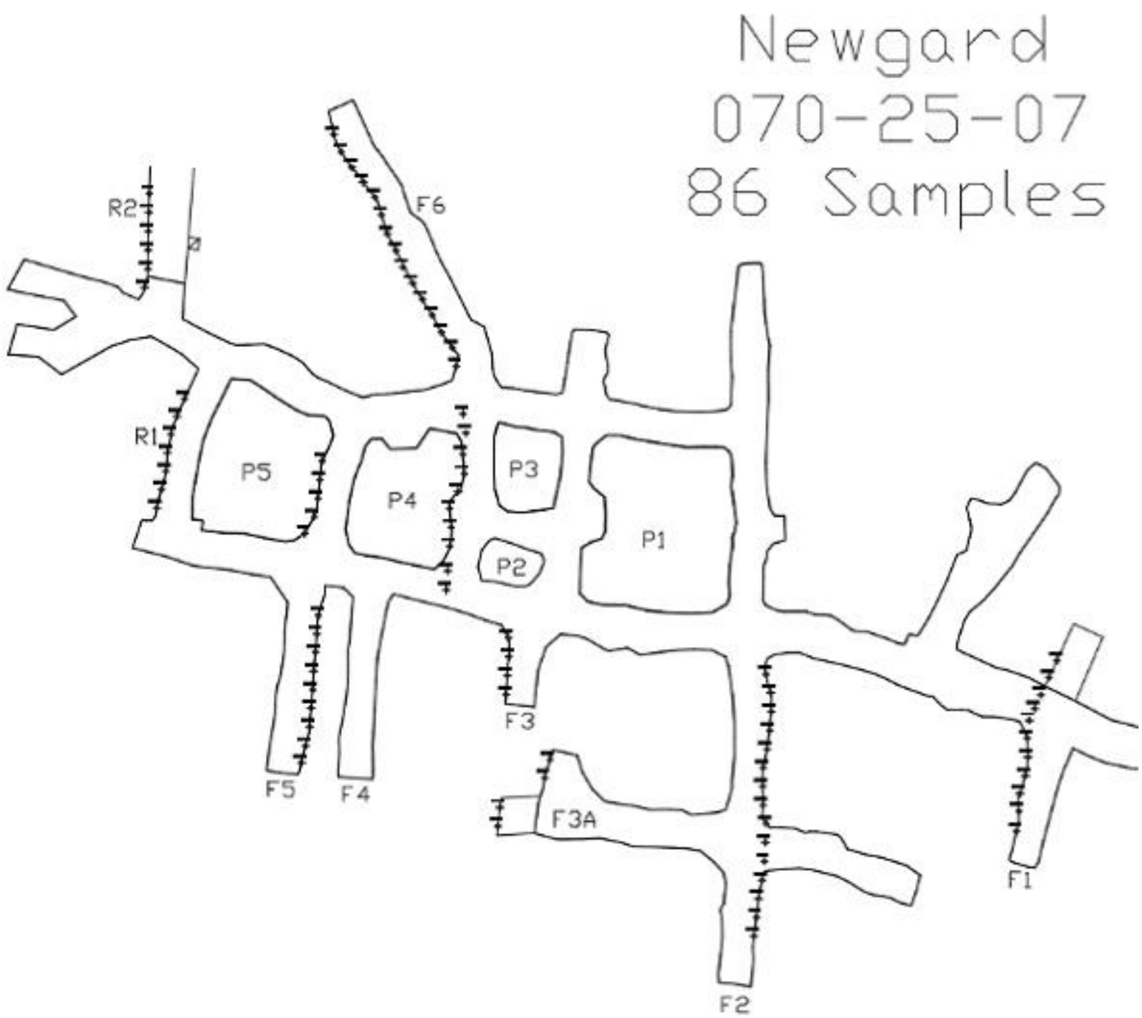


Figure 9-3 Sample locations on the 070-25-07 sublevel using geo-referenced AutoCAD files

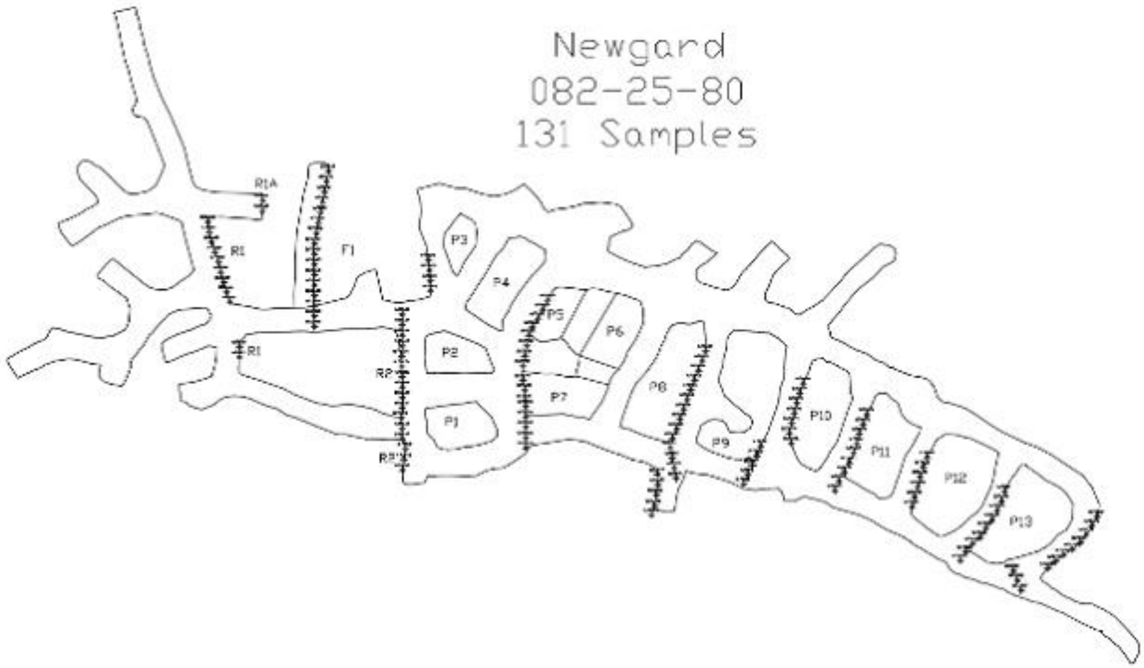


Figure 9-4 Sample locations on the 082-25-80 sublevel using geo-referenced AutoCAD files

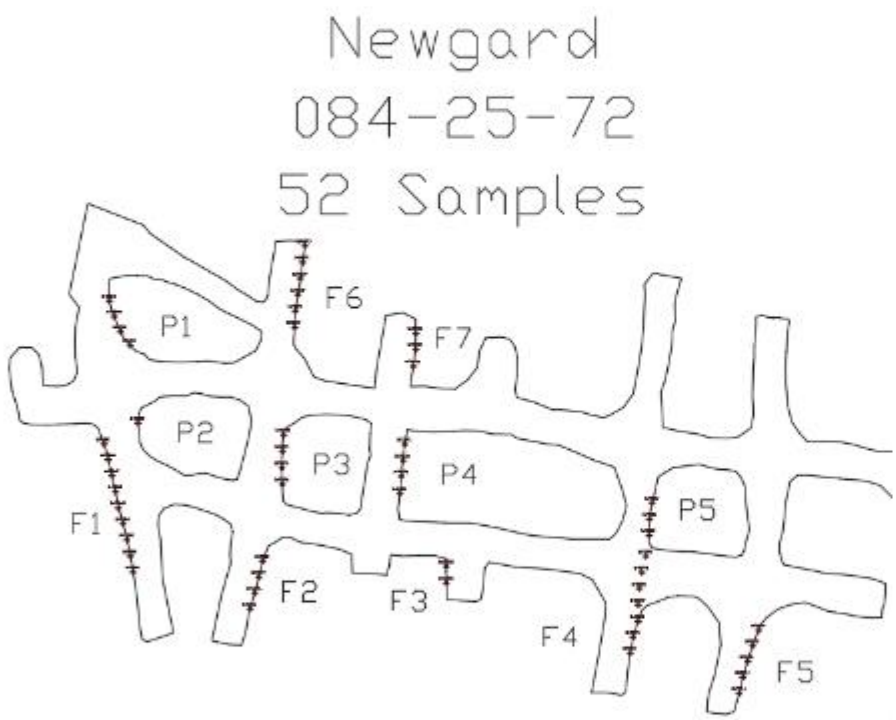


Figure 9-5 Sample locations on the 084-25-72 sublevel using geo-referenced AutoCAD files

A breakdown of sampled areas and the number of samples collected is shown in Table 9-1.

Table 9-1 Channel Sample Breakdown

Stopes Samples	Number of Samples
UTZ	111
071-25-05	30
070-25-07	86
071-25-07	52
082-25-80	131
080-25-25	62
080-25-23	101
9 Level I-drift	68
10 Level	70
11 Level	42

Throughout the underground sampling program, a number of safety and logistical constraints dictated sampling locations. The sampling crew navigated issues such as high backs, unstable or faulted ribs and pillars, poor air quality and gases, ground support, standing bodies of water, areas filled with waste rock, poor ground conditions, undetonated historic explosives, and gaping holes in the back or sill. Samplers frequently consulted with the mine safety manager and, where possible, found a way to safely collect samples. Occasionally, no viable solution to remedy safety issues required samplers to forego sampling in a desired location. Despite the obstacles, no safety incidents occurred during the 3 months of underground sampling.

9.2 RESULTS OF STOPE VERIFICATION SAMPLES

Of the 753 channel samples collected, 749 samples contained measurable amount of mineralization. The grades of Ag, Zn and Pb very closely matched the historic production car sample grades. Table 9-2 summarizes the results of the channel data verification program. Of note the coefficients of variance are low which gives confidence that the data may be used for mineral resource estimation.

Table 9-2 Results of Channel Verification Program

Variable	Sample Count	Minimum Grade	Maximum Grade	Average Grade	Standard. Deviation	Coefficient of Variance
Zn	749	0.001%	36.9%	3.92%	4.98	1.27
Ag	749	0.015(opt)	9.99(opt)	0.66(opt)	1.00	1.50
Pb	749	0.001%	19.00%	1.68%	2.35	1.39

9.3 CONFORMATION DRILLING OF MINERALIZED ZONES

Drilling began in September of 2020 and in several locations and definition drilling to expand the Bunker Hill Resources in the UTZ started in September of 2020 and continued into assay cutoff date of October 10, 2021, 2021. This drill program produced 55 holes that were drilled in either the UTZ or Quill-Newgard areas of the mine comprising 20,689 feet of core drilled. Holes were typically drilled at HQ diameter, but for future use as utility passes select holes were drilled at PQ diameter. Much of the drilling was related to the data verification described later in this report. Some exploration drilling occurred from multiple surface locations, with several holes drilled at the historic Homestake portal to expand the UTZ. Also drilled were definition and exploration targets on the 5-level accessed from the Russell tunnel, and exploration targets on the 9-level accessed via the Kellogg tunnel.

Drill pad prep and drill rig mobility logistics were managed on site by a drilling manger from Bunker Hill, supervisory staff from American Drilling Company ("ADC") and the onsite Rangefront geologists. A Reflex TN14 gyroscope assisted in lining up the drill rig at the collar. A 50' survey shot was taken during drilling to allow geologists to determine hole viability. Upon reaching the target depth, a geologist observed the core and determined whether to terminate the hole or continue drilling. Upon completion, the survey tool was sent down to take an end of hole survey shot plus one shot every 100' on the way out of the drill hole. These surveys were then approved by the geology team in accordance with industry standard practices and uploaded into the database along with collar locations picked up by the survey team. Throughout the program, Vulcan software was used to plan and modify holes, check proximity to historic workings, evaluate deviation, and assess assay results. At the end of the program, surface holes were grouted in accordance with the Idaho Water Department guidelines.

Rangefront employees and ADC employees ensured security of the core throughout the program. Core was initially held by ADC at the drill rig with the rigs both on the surface and underground on the 5 level. Rangefront employees made daily trips to pick up core and receive a signed chain of custody. On the 9 level, ADC brought the core out the Kellogg Tunnel and it would be signed over to Rangefront at the morning shift change. Winter conditions on mountainous roads eventually necessitated the deposition of core into the core shed by ADC employees.

The core was housed on site in a secure core shed where it was washed, logged, photographed, cut, sampled, and then shipped to an assay lab (see Section 8 for details on sampling and assaying details). Geologic characteristics noted during the logging process included lithology, color, hardness, structure, alteration, observed mineralization, point data and geotechnical data. Rangefront employees ensured Chain of Custody during the entire process.

A portion of one hole was drilled prior to the drill program beginning in September. The hole was re-entered and completed in October of 2020.

9.4 HISTORIC DRILLING PULP RE-ASSAY

During a cleanup of a storage warehouse, 758 unoxidized, well-kept pulp envelopes were discovered. The pulps were labeled and associated with the final drilling programs at Bunker prior to closure. The pulps are associated with the Quill and Newgard deposits which are the subject of this report. The pulps were submitted for assaying along with standards and duplicates to ensure proper QAQC protocols were followed. As an example, resultsof the analysis for Zn, shows a one-to-one correlation between originally reported assay values and pulp re-assay values. This verification, along with the above information in this section provide the basis for the QP's to deem this information adequate for usage for mineral estimation purposes at Bunker Hill.

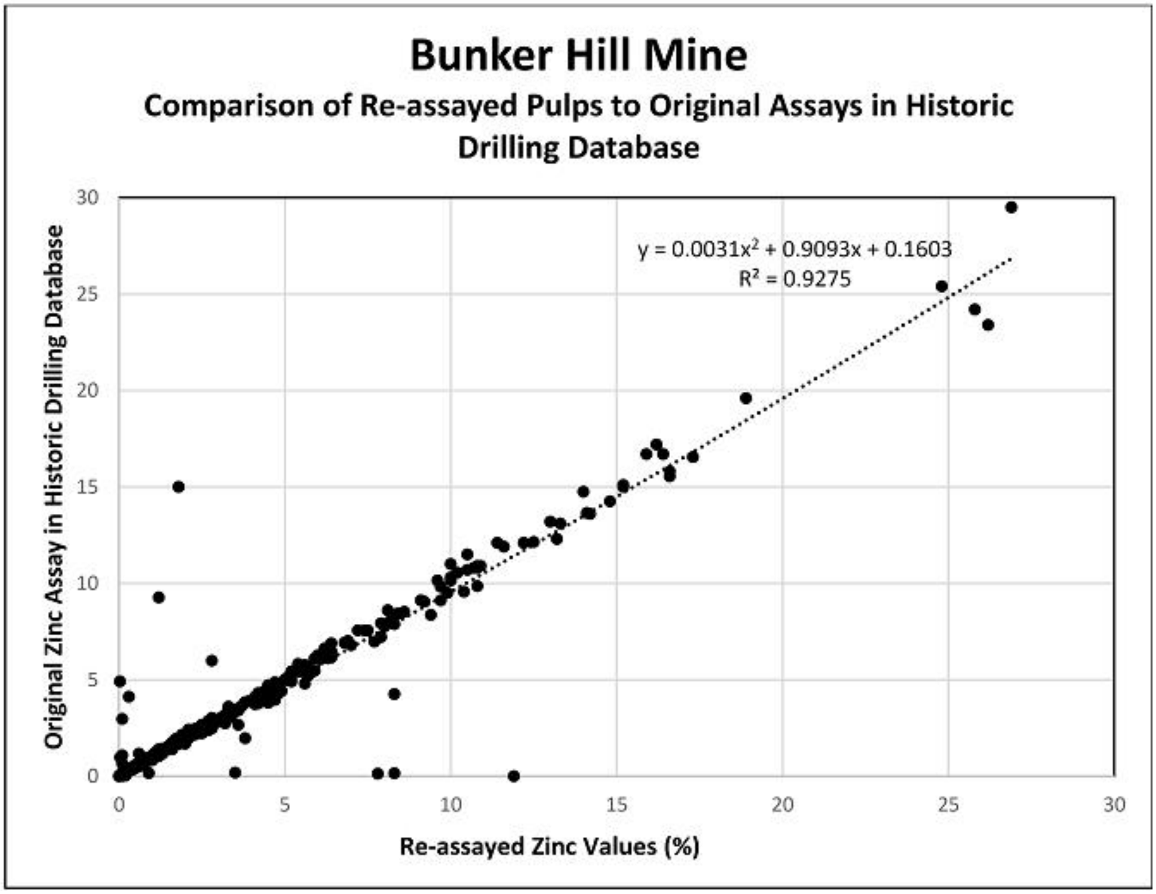


Figure 9-6 Original Assays Compared to Re-assaying of Pulps.

10 MINERAL PROCESSING AND METALLURGICAL TESTING

This chapter summarizes and provides documentation for the metallurgical and process design work that has been performed on the Bunker Hill Project through to May 2022. This includes a review of the operating history, a review of historical metallurgical test work used to support various studies, an analysis of the current test work program results as well as recommendations for future testing.

10.1 GEOLOGY

The Bunker Hill Property is located in the Coeur d'Alene mining district of northern Idaho. The mineralization of the Coeur d'Alene district consists of veins with variable proportions of sphalerite, galena, argentiferous tetrahedrite in either a quartz or siderite gangue. The past producing Bunker Hill Mine is part of the Galena-Page mineral belt and marks the transition from silver-copper mineralization to lead-zinc-silver mineralization. The individual deposits that form the Bunker Hill Mine are numerous and relatively large with strike lengths up to 900 ft (274 m) with plunge lengths up to 3,000 ft (914 m).

Models for the origin of the Coeur d'Alene mineralization range from magmatic hydrothermal to mobilization of sediment-hosted stratiform or strata-bound mineralization. Most recently, genetic models have focused on the mineralization being hosted by mesothermal veins related to metamorphic/hydrothermal events that sourced metals from the Belt sediments.

10.2 HISTORICAL OPERATIONS

Production at the lead, silver, and zinc Bunker Hill Mine began in 1887, lasted 95 years, and included a zinc refinery beginning in 1927. The mine was the largest producer in the Coeur d'Alene Mining District, with a total historical production of 35 M tons (31.75 M tonnes) of mineralization grading 8.76% lead, 3.67% zinc, and 5.49 oz/ton (188.2 g/t) silver.

The Bunker Hill Concentrator, which processed 2,400 tpd, consisted of two-stage crushing circuit to produce feed for the ball mills. The ground product was sequentially floated, namely lead first followed by zinc minerals. Both lead and zinc rougher concentrates were cleaned twice to produce marketable-grade products. Figure 10-1 provides a high-level description of a process flow diagram of the historical Bunker Hill Mining concentrator.

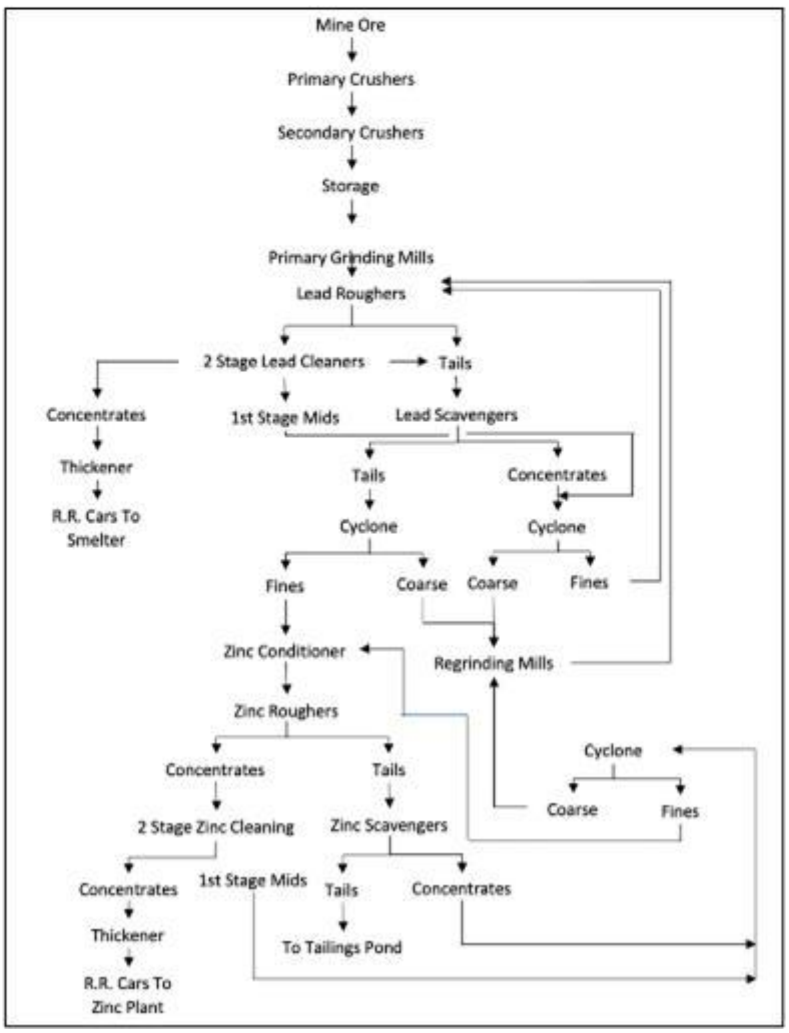


Figure 10-1 Historical Process Plant Block Diagram of the Bunker Hill Mining Concentrator

The plant description indicated the flotation reagents employed were sodium cyanide, zinc sulfate, lime, copper sulfate, xanthate and methyl isobutyl carbonyl. The same reagents are commonly used today for processing of polymetallic mineralization.

The production data are summarized in Table 10-1. The lead concentrate assayed ±64% Pb, 40 opt Ag and 5% Zn. The zinc concentrates assayed ±55% Zn, 3 opt Ag and 1% Pb. The feed grades were not reported.

Table 10-1 Historical Production Data for Bunker Hill Mining Concentrator

Process Parameter	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Tons Milled, 000	535	601	745	797	819	456	571	583	592	642
Recoveries, %										
Lead	94.8	94.1	92.4	91.3	90.8	90.3	90.7	90.1	89.4	90.1
Silver	94.7	94.7	92.7	90.9	89.8	90.1	90.3	88.1	87.2	88.7
Zinc	93.8	94.1	91.1	90.3	91.4	90.1	92.2	89.6	91.3	92.9

10.3 METALLURGICAL TEST WORK – (RDI – 2021)

Bunker Hill Mining Corporation contracted Resource Development Inc. (RDi) to conduct a scoping level metallurgical study to evaluate metal recovery for the Bunker Hill Project. The primary objective of the test program was to complete metallurgical test work to be included in the Pre-feasibility Study (PFS) for the Bunker Hill Project. The test program built upon knowledge gained during initial scoping level testing and historical production data.

The main objectives of the test work included the following:

1. Establish a process flowsheet for lead and zinc recovery that maximizes recovery while maintaining high concentrate grades

2. Simulate plant operations with locked cycle flotation testing and characterize final concentrates for marketing purposes.

10.3.1 SAMPLE SOURCE

RDi received approximately 500 kilograms of sample for metallurgical testing from the UTZ portion of the mine, collected by hand from 2x 4' deep, 12' wide panel shots off the rib. Samples were taken in the same drift on opposite ribs, approximately 20' apart, one on the northeast (NE Samples) side and one on the southwest (SW Samples). The UTZ sample location represents the standard style of mineralization to be expected throughout the remainder of the UTZ, Newgard and Quill mineralized zones. Spatial variation, both along strike and down plunge, of the mineralized zones show little to no variation in relative abundance of certain metal-bearing minerals versus other locations outside of the inherent grade variabilities. Host rock and structural features in the UTZ are also representative of the mineral deposit as a whole. 10x 5-gallon buckets of sample were collected from each panel, which were subsequently split in half to produce a master composite for testing. The other half of each bucket was retained for variability testing. Representative pieces of rock were selected from each bucket for in-place bulk density testing. The master composite sample was crushed to nominal 1 inch and a representative split was taken for abrasion testing. The remaining sample was crushed to P_{100} passing 6 mesh, blended, and split into charges for testing. A representative sample of the master composite was pulverized and submitted for head analysis.

The head assay results indicate the following:

The master composite sample contained 4.1% lead and 6.4% zinc. Precious metals are present with approximately 0.45 g/mt Au and 49.7 g/mt Ag. The sample is high in sulfur with most of the sulfur present as sulfide sulfur. Arsenic content was significantly higher than previously tested samples at 0.86% As.

10.3.2 COMPOSITE MINERALOGY

The master composite sample was submitted for mineralogical analysis. The sample consists of mostly sericitic quartzite, but nearly half of the sample is made up of sulfides. Sphalerite is the dominant sulfide and occurs in liberated grains at several millimeters in size and as inclusions in quartz, pyrite, and galena at 1 to 50 microns.

Galena and pyrite are found in similar quantities. Large galena grains exhibit inclusions of pyrite, chalcopyrite, and tetrahedrite up to 50 microns in size. Galena is also found as inclusions in quartz, pyrite, and sphalerite of up to 75 microns. Arsenopyrite occurs in quartz, pyrite, sphalerite, and galena, with grain sizes ranging from 1 to 100 microns. A few large (>100 micron) aggregates of arsenopyrite are present.

The in-place bulk density was determined for each received bucket by weighing each sample after drying and then weighing the sample while it was submerged under water to determine the volume of water displaced. The samples were coated in wax to ensure water did not penetrate the samples. The bulk density (SG) averaged 2.79 for the NE samples, and 2.77 for the SW samples. RDi uses Forte Analytical for their metallurgical research and testing as well as assaying, an ISO 9001:2015 certified laboratory.

Table 10-2 Head Analysis of the Master Composite Sample (Including ICP)

Au, g/mt	0.449
Ag, g/mt	49.7
Sulfide S %	6.78
Sulfate S %	0.80
Total S %	7.58
%	
Al	1.04
Ca	0.08
Fe	5.76
K	0.43
Mg	0.06
Na	0.16
P	0.17
Pb	4.10
Ti	0.02
Zn	6.42
ppm	
As	8590
Ba	25
Be	<2
Bi	10
Cd	216
Co	56
Cr	344
Cu	353
Hg	8.96
La	14
Li	<2
Mn	487
Mo	3
Ni	31
Sb	330
Sc	<5
Se	<5
Sn	<10
Sr	<5
Ta	<10
Te	24
Tl	<10
U	<10
V	11
W	278

10.3.3 BOND'S BALL MILL WORK INDEX / ABRASION INDEX

A Bond's Ball Mill Work Index (BWi) was determined for the master composite sample at a closed size of 100 mesh (150 microns). In addition, a sample was submitted for Bond Abrasion Index testing at Hazen Research Inc. The BWi result was 13.47 kWh/st, while the Ai was determined to be 0.6137. The results indicate that the sample would be considered medium hardness and very abrasive. Subsequent BWi tests conducted by SGS Canada Inc at Lakefield (SGS) resulted in similar results.

Table 10-3 Bond Work Index (BWi) Analyses of the Master Composite Sample

Test Source	Bond Work Index (BWi), kWhr/ton
RDi, composite sample as received	13.47
SGS, BH - MC	12.6
SGS, BH – L9	11.9
SGS, BH - UTZ	13.4

10.3.4 FLOTATION TESTS

10.3.4.1 ROUGHER FLOTATION TESTS

Initial rougher flotation tests were completed with 1-kilogram charges of the master composite sample. Testing utilized a differential flotation approach to produce separate lead and zinc concentrates. The zinc was depressed with a variety of reagents while the lead was floated. After the lead flotation, zinc was activated with copper sulfate and then collected with SIPX. The primary grind was varied from P_{80} 100 mesh to P_{80} 200 mesh to determine liberation characteristics. Additional rougher flotation tests were conducted without sodium cyanide and with the use of premade zinc cyanide instead of the standard separate additions of sodium cyanide and zinc sulfate. All test products were submitted for assay of gold, silver, lead, and zinc.

The scoping level rougher flotation test results indicate the following:

- The differential flotation approach was successful at producing separate lead and zinc concentrates. Finer grinding produced slight improvements in lead, silver, and gold recovery in the lead rougher concentrate. The amount of zinc reporting to the lead rougher concentrate also slightly increased, while the grade of the zinc in the zinc concentrate also increased. Rougher concentrate lead grades in the lead concentrate ranged from 13.8% Pb to 17.6% Pb, while the zinc grades in the rougher zinc concentrate ranged from 29.0% Zn to 34.6% Zn.
- All tests exhibited similar overall zinc recovery of >98%. Zinc reporting to the zinc concentrate ranged from 71.2% to 80.3%, with the highest values at the finer particle sizes and without the addition of Aero 3418A to the lead circuit.
- All tests exhibited similar total lead recovery of >92%. Lead reporting to the lead concentrate ranged from 84.1% to 92.8%, the highest values at the finer particle sizes and with the addition of AP242 to the lead circuit.
- The majority of precious metals reported to the lead concentrate. Total recovery of silver was >97% with approximately 87% reporting to the lead concentrate. Total gold ranged from 85.8% to 94.4%, with as much as 78% reporting to the lead concentrate. Caution should be raised that this gold could routinely be associated with the entrained arsenic, as arsenopyrite. The high arsenic content in the lead concentrate creates placement challenges and penalties. Ongoing test work will focus on arsenic depression and further characterize gold deportment.
- The addition of more zinc depressants did not significantly affect the overall flotation results but did slow the kinetics in the lead circuit (FT5). The substitution of AP242 in place of Aero 3418A increased the mass pull and recovery of all metals into the lead concentrate, including zinc (FT4). The exclusion of Aero 3481A provided a slight decrease in the amount of zinc reporting to the lead concentrate and slowed the kinetics in the lead circuit (FT6).
- Kinetic samples indicate the majority of lead is floated in the first minute of flotation time and approximately 89% of the lead can be floated in three minutes of flotation time with a grade of 20.3% Pb at a particle size of P_{80} 150 mesh. The zinc grade continues to increase as the lead flotation continues. It would be best to limit the rougher lead flotation to three minutes and additional flotation residence time would be considered the rougher scavenger that is sent to the regrind circuit.
- Zinc cyanide was as effective at depressing zinc in the lead circuit as the combination of sodium cyanide and zinc sulfate utilized in previous tests. Overall metal recoveries and the amount of lead and zinc reporting to the zinc circuit were also similar. The removal of cyanide resulted in approximately 7% additional zinc reporting to the lead concentrate.

Additional rougher flotation tests were completed with 1-kilogram charges of the master composite sample to investigate the addition of all depressants directly to the grinding mill instead staged addition to the mill and rougher flotation stages. Testing utilized the standard differential flotation approach to produce separate lead and zinc concentrates at a primary grind to P_{80} 200 mesh. The zinc was depressed with the standard dosage of depressants (FT22), and 1.5X depressants (FT23). All flotation products were submitted for assay of gold, silver, lead, zinc, arsenic, iron, and sulfide sulfur.

The results from additional rougher tests were similar to previous tests with slightly higher lead grade and lower zinc grade in the lead rougher concentrate. Additional depressants made another slight improvement to concentrate grades. Metal recoveries were similar to previous rougher flotation tests.

10.3.4.2 CLEANER FLOTATION TESTS

Cleaner flotation tests were completed to evaluate various primary grinds, reagents, regrinds, and splitting of the rougher and scavenger concentrates. Initial cleaner tests were completed with individual lead and zinc rougher concentrates to simulate the historic operation flotation process. Rougher concentrate was produced from 2-kilogram charges at grinds of both P_{80} 150 mesh and P80 200 mesh. Lead promoters 3418A and AP242 were also evaluated. The rougher concentrates for both lead and zinc were collected for 2 minutes of flotation time, while the rougher scavenger concentrates were collected for an additional 3 minutes of flotation time. The lead and zinc rougher concentrates were then individually cleaned with two stages of cleaners without regrind. The lead and zinc rougher scavenger concentrates were combined and reground to P80 325 mesh. The reground, combined scavenger concentrate was then refloated utilizing rougher flotation conditions to simulate recirculation back to the rougher cells. The process flow diagram utilized for the first set of cleaner testing is given in Figure 10-2.

A second set of cleaner tests were completed that combined the rougher and scavenger concentrates for both lead and zinc. Concentrate was produced with 2-kilogram charges at primary grinds of P80 200 mesh and P80 270 mesh and lead promoter AP242. The combined rougher scavenger concentrates were then cleaned with three stages of cleaners, with and without regrind to P_{80} 325 mesh. The process flow diagram utilized for the second set of cleaner testing is given in Figure 10-3. All test products were submitted for assay of gold, silver, lead, and zinc.

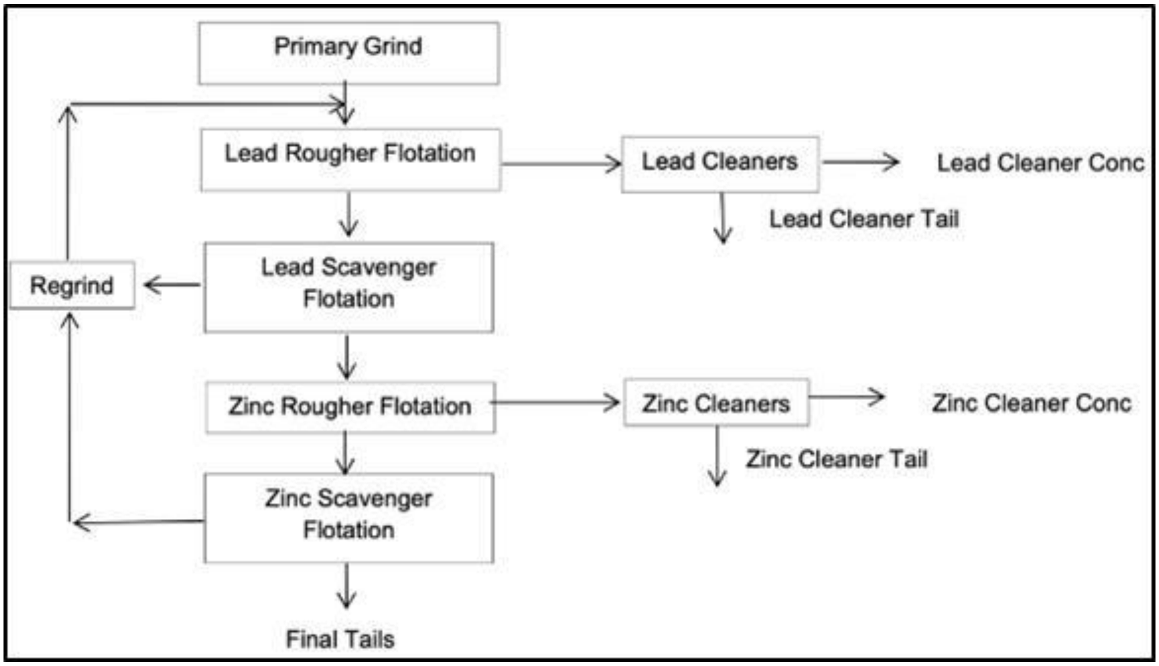


Figure 10-2 Cleaner Flotation Process Flowsheet (Tests 7-9)

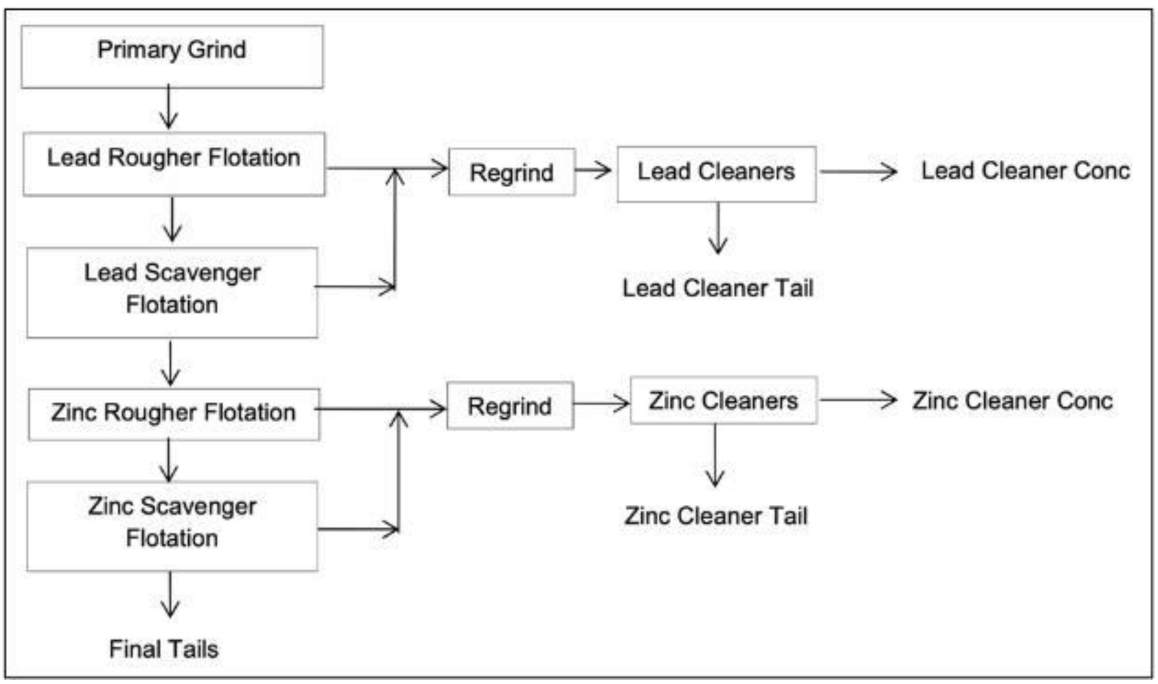


Figure 10-3 Cleaner Flotation Process Flowsheet (Tests 12-13)

A third set of flotation tests were completed to investigate increased depression of arsenic and other gauge minerals during the rougher and cleaning stages. Combined rougher/scavenger concentrate was produced during bulk flotation testing utilizing the standard flotation conditions (primary grinds of P_{80} 270 mesh SIPX, AP242, CuSO4) for tests FT15-FT17. The lead and zinc concentrates were cleaned with three stages of cleaners, with a lead circuit regrind to approximately P_{80} 400 mesh. Depressants in the lead regrind/1st cleaner were added at the standard amount for the first test (FT15), 1.5 times the standard amount for the second test (FT16), and 2 times the standard amount for the third test (FT17). Depressant additions were doubled in the 2nd stage of lead cleaners for all tests. The pH was adjusted to 12 with hydrated lime during all zinc cleaner stages for all tests in this series to depress arsenopyrite and pyrite. Lead rougher and cleaner tests were completed utilizing the standard conditions to evaluate soda ash as a pH modifier and to develop baseline arsenic grades for additional composites with various arsenic head grades (FT18-21). All of these test products were submitted for assay of gold, silver, lead, zinc, and arsenic. Full ICP metals and XRF analysis were completed on the final lead and zinc concentrates.

The cleaner flotation test results indicate the following:

- Cleaner flotation tests with non-reground rougher concentrates indicate higher metal recovery and higher concentrate grades were produced at a primary grind of P_{80} 200 mesh. Two stages of cleaners at the finer grind produced overall lead recovery in the second lead cleaner concentrate of 78.7% at a grade of 43.6% Pb and zinc recovery in the second zinc cleaner concentrate of 66.7% at a grade of 51.0% Zn.
- Cleaner flotation tests with combined rougher/scavenger concentrates indicate slightly higher metal recovery and higher concentrate grades with reground concentrates as compared to finer primary grind and no regrind. A primary grind of P_{80} 200 mesh and regrind to P_{80} 325 with three stages of cleaners produced lead concentrate of 48.5% Pb and zinc concentrate of 58.1% Zn as compared to 44.3% Pb and 52.8% Zn with a primary grind of P_{80} 270 mesh and no regrind. Less zinc reported to the lead concentrate with the primary grind at P_{80} 270 mesh. Primary grind of P_{80} 270 mesh and regrind to P_{80} 325 mesh produced a lead grade of nearly 60% Pb with three stages of cleaners, but only 40% of the lead reported to the cleaned concentrate.
- Rougher flotation results for the cleaner tests produced similar overall recoveries to the initial rougher flotation series, with approximately 95% lead and 98% of the zinc recovered into concentrates. Finer primary grinds collected more lead and less zinc into the lead rougher concentrate and more zinc into the zinc rougher concentrate. The use of AP242 increased the recovery of lead and zinc into the lead concentrate and decreased the metal grades due to the additional mass. Approximately 95% of the lead and 22% of the zinc were recovered into the lead rougher concentrate and 75% of the zinc into the zinc rougher concentrate at a primary grind of P_{80} 200 mesh and the use of AP242.
- Regrinding the combined lead and zinc rougher scavenger concentrates and re- floating to simulate recycle to the rougher flotation did not significantly improve the concentrate grade. The majority of the lead and zinc reported to the lead concentrate since the activated zinc could not be depressed to the zinc concentrate with high dosages of reagents. Approximately a third of the rougher scavenger mass was rejected to the rougher tail which accounts for approximately 0.5% of the overall metal recovery.
- Arsenic test work indicates that arsenic grade in the final lead concentrate is similar to the grade observed in the lead rougher concentrate for the current master composite as well as the Quill and UTZ composites from the previous test program. Approximately 50%-60% of the arsenic is recovered into the lead rougher concentrate even with additional depressants in the rougher circuit.
- Higher depressant additions in the lead cleaner circuit of the master composite increased the lead grade in the 3rd Pb cleaner concentrate from a baseline grade of 43.3% Pb to 50.8% Pb. Arsenic grade in the cleaned lead concentrates was not significantly changed with additional depressants in the lead rougher or cleaner circuits, or with the use of soda ash for pH control. Slight improvements in lead and zinc recovery were observed with higher depressants.

10.3.4.3 LOCKED CYCLE FLOTATION TESTS

A locked-cycle flotation test was completed with the optimum cleaner flotation flow sheet to forecast concentrate grade and precious metal recovery expected during plant operation. The locked-cycle test consists of running multiple flotation tests and recycling each cleaner tail into the previous flotation stage during the next flotation test/cycle. A total of six cycles were completed to ensure that the process was at steady state. In addition to the locked-cycle test, a one cycle open-cycle test (FT14) was completed to correlate open-cycle results to locked-cycle results. The same conditions were utilized for both open-cycle and locked-cycle tests.

The open-cycle and locked-cycle tests were completed at a primary grind of P_{80} 270 mesh for rougher flotation. Rougher scavenger flotation was included in both the lead and zinc circuits to increase the amount of value sent to the cleaner stages. Regrind of the lead rougher concentrate with a pebble mill was completed to a particle size of approximately P_{80} 400 mesh for cleaner flotation. No regrind was completed with the zinc rougher concentrate.

The lead and zinc circuits were separated during the locked-cycle testing with the exception of the lead cleaner 1 tails recycled to the zinc rougher flotation to increase the zinc recovery. The rougher concentrate was then fed to the 1st cleaner flotation. The 1st cleaner flotation included a scavenger flotation stage in which the concentrate would be recycled back to the 1st cleaner flotation for the next cycle. The concentrate from the 1st cleaner was then cleaned during the 2nd cleaner flotation. The 2nd cleaner tails were recycled back to the 1st cleaner flotation for the next cycle. The concentrate from the 2nd cleaner was then cleaned during the 3rd cleaner flotation. The 3rd cleaner tails were recycled back to the 2nd cleaner flotation for the next cycle.

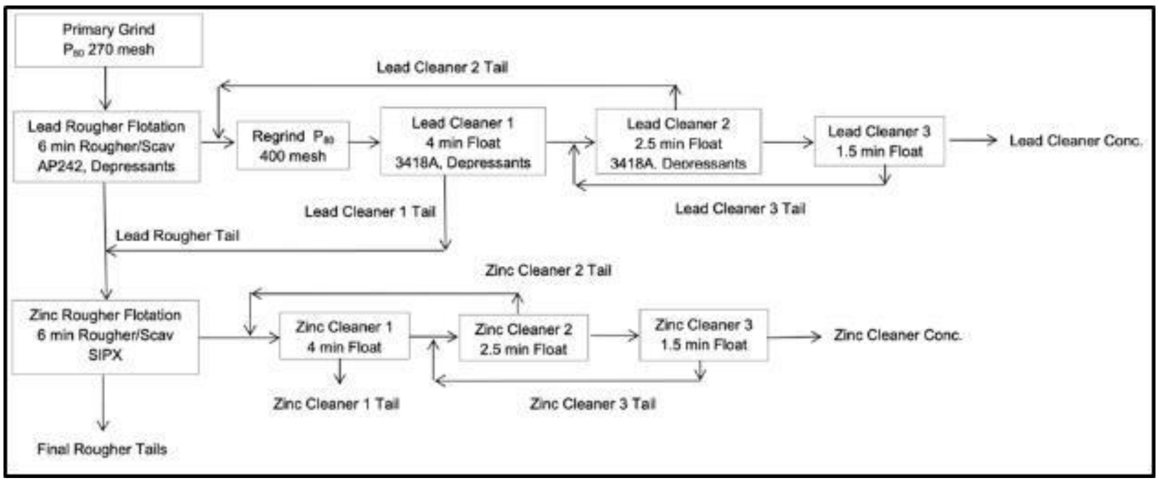


Figure 10-4 Locked-Cycle Test Process Flowsheet

Table 10-4 Open-Cycle Flotation Results (FT14)

Product	Overall Recovery %					Product Grade			
	Wt	Au	Ag	Pb	Zn	Au (g/mt)	Ag (g/mt)	Pb (%)	Zn (%)
Cleaner Test FT-14 (270 mesh, AP242, 325 mesh regrind for Pb Conc.)									
Lead 3rd Cleaner Conc.	4.4	20.3	58.4	65.5	5.2	1.65	482	48.60	5.40
Zinc 3rd Cleaner Conc.	6.6	7.4	5.5	1.3	71.8	0.40	30.0	0.66	49.44
Rougher Tail	78.3	16.5	6.1	4.6	2.7	0.08	2.8	0.19	0.16
Zinc 1st Cleaner Tail	1.3	1.4	0.8	0.4	0.9	0.40	22.8	0.91	3.14
Combined Tails	79.6	17.9	6.8	4.9	3.6	0.08	3.1	0.20	0.21
Calculated Head	100	100	100	100	100	0.36	36.2	3.26	4.57

Table 10-5 Summary of Locked-Cycle Flotation Test Results (Average of Last 3 Cycles)

Product	Overall Weight %	Overall Pb Recovery %	Overall Zn Recovery %	Overall Au Recovery %	Overall Ag Recovery %	Conc. Grade Pb (%)	Conc. Grade Zn (%)	Conc. Grade Au (g/mt	Conc. Grade Ag (g/mt)
Lead 3rd Cleaner Conc.	7.1	88.2	9.2	47.8	84.2	47.6	6.91	2.16	410
Zinc 3rd Cleaner Conc.	8.7	3.5	85.1	16.7	10.9	1.55	52.4	0.62	43.5
Rougher Tail	80.7	5.3	3.2	25.5	0.9	0.25	0.21	0.10	0.40
Zinc 1st Cleaner Tail	3.6	2.9	2.5	9.9	3.9	3.14	3.71	0.89	37.7
Combined Tails	84.2	8.3	5.7	35.5	4.9	0.38	0.36	0.13	1.99
Calculated Head	100.0	100.0	100.0	100.0	100.0	3.78	5.25	0.32	34.0

Table 10-6 Assay Analysis of LCT Final Flotation Concentrate

Element	Pb 3rd Cleaner Conc.	Zn 3rd Cleaner Conc.
Au, g/mt	1.78	0.61
Ag, g/mt	416	32.0
SiO_2, %	3.3	3.5
Total S %	23	33
%		
Al	0.04	0.07
As	3.87	1.35
Ca	0.19	0.26
Fe	14.90	8.34
K	0.12	0.15
Mg	0.07	0.08
Na	0.22	0.23
P	0.07	0.11
Pb	46.25	1.15
Ti	<0.01	0.01
Zn	8.69	57.36
ppm		
Ba	4	1
Be	<2	<2
Bi	<2	<2
Cd	281	2133
Co	249	95
Cr	62	5
Cu	1835	1554
Hg	11.40	81.80
La	3	5
Li	<2	<2
Mn	133	139
Mo	1	<1
Ni	142	42
Sb	1884	433
Sc	11	<5
Se	<5	<5
Sn	594	658
Sr	11	15
Ta	<10	<10
Te	41	44
Tl	<10	<10
U	<10	<10
V	2	<1
W	395	3252

The locked-cycle flotation results indicate the following:

- Locked-cycle testing recovered 88.2% of the lead into the lead cleaner concentrate at a grade of 47.6% Pb, and 85.1% of the zinc into the zinc cleaner concentrate at a grade of 52.4% Zn. Final concentrate analysis shows a zinc concentrate grade of 57.36% Zn and lead concentrate grades of 46.25% Pb and 416 g/mt Ag. The product grades were similar to the open-cycle results, but the locked-cycle recoveries were higher due to the recycling of tails. The highest lead losses were in the final tails (8.3%), while the majority of zinc losses were from zinc left in the lead circuit (9.2%).
- The majority of precious metals were recovered in the lead cleaner concentrate with 47.8% of the gold and 84.2% of the silver reporting at grades of 2.16 g/mt Au and 410 g/mt Ag. The zinc cleaner concentrate contained 16.7% of the gold and 10.9% of the silver.
- Smelter penalty analysis of the sixth cycle cleaned concentrates indicated the arsenic was the highest contaminate at 3.87% As in the lead concentrate and 1.35% As in the zinc concentrate.

10.3.4.4 CONCENTRATE MINERALOGY

Select cleaner flotation concentrates were submitted for mineralogical analysis to determine the content and liberation size of the metals in the concentrates. Lead Cleaner 3 concentrates produced at various grinds were submitted (FT12-primary grind 200 mesh, regrind 325 mesh, FT13-primary 270 mesh/regrind 325 mesh, LCT primary 270 mesh/regrind 400 mesh) as well as the LCT Zinc Cleaner 3 concentrate. The mineralogy results were similar for the three lead concentrates that were analyzed. The main liberated contaminates in the lead concentrates were pyrite and sphalerite. These minerals were also the major contaminates attached to galena. Nearly all of the arsenopyrite was liberated from the galena at a content of approximately 6%. A small amount of quartz was found in the lead concentrate (<5%), while most of the concentrate was made up of sulfides. The contaminates generally decreased with finer grind.

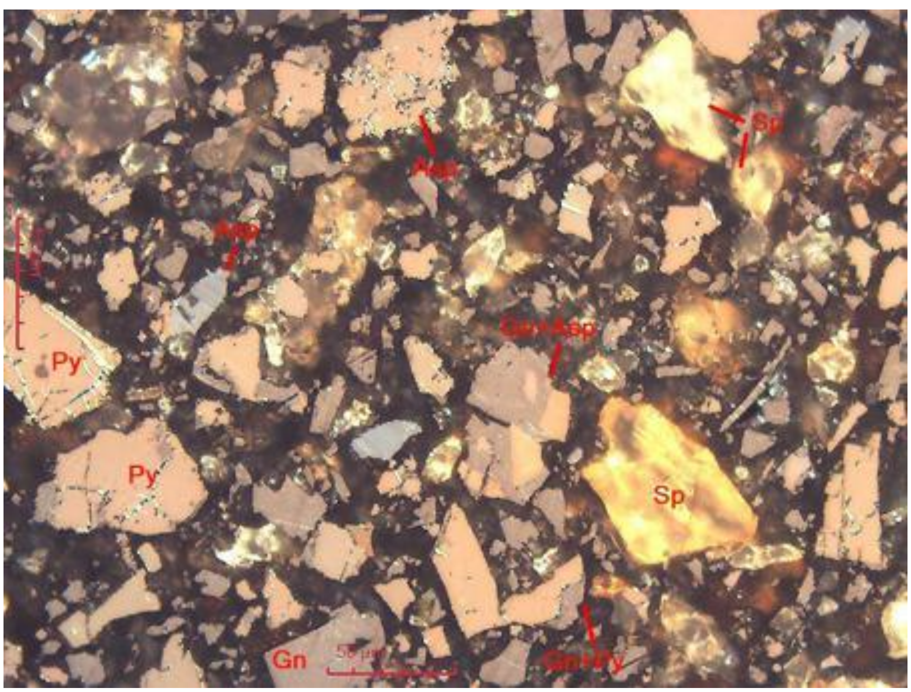


Figure 10-5 BHFT 12 Pb Cleaner 3 Concentrate Area Photo Showing Galena (Gn), Pyrite (Py), Sphalerite (Sp) and arsenopyrite (Asp) - 200X RL

The zinc concentrate contained mostly sphalerite, with small amounts of pyrite, galena, arsenopyrite, and quartz. Petrographic studies in conjunction with XRD indicate the sample contains 1% total galena, however, no liberated galena is identified. Galena occurs as minute inclusions or attachments in pyrite and sphalerite with a grain size that varies from 1µm to 10µm in size. Concentrate mineralogy was completed by DCM Science Laboratory Inc in Colorado, USA.

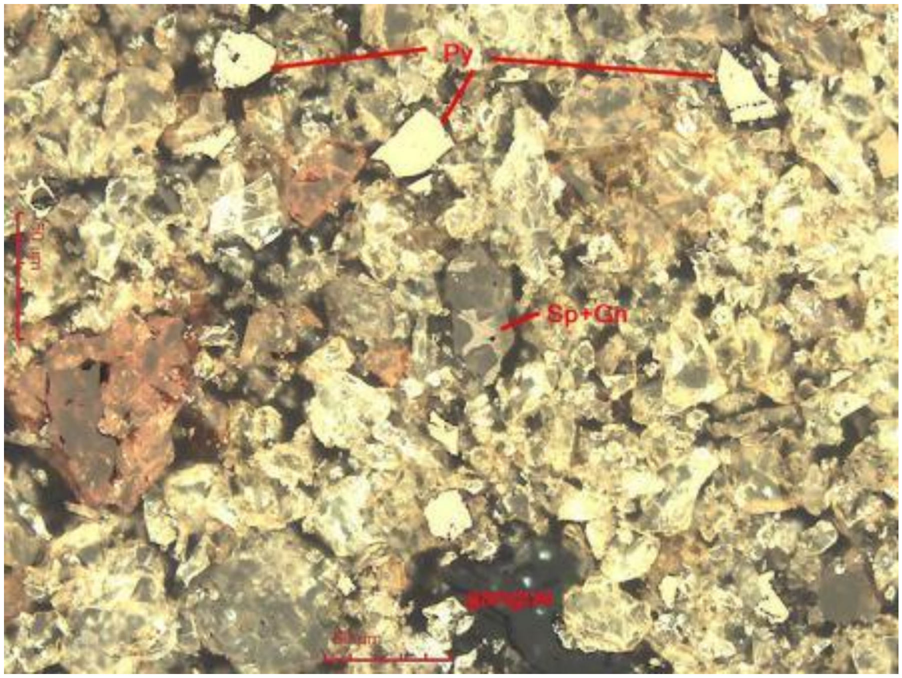


Figure 10-6 BH LCT Zn Cleaner Concentrate Cyc 6 Area Photo Showing Yellow Sphalerite, Galena (Gn), Pyrite (Py) and Quartz Gangue - 200X RL

10.4 METALLURGICAL TEST WORK – (SGS – 2022)

Bunker Hill Mining Corporation has contracted SGS Canada Inc (SGS) to conduct a metallurgical study to further evaluate and optimize metal recovery for the Bunker Hill Project. The primary objective of the test program is to complete metallurgical test work to improve met results over the Pre-feasibility Study (PFS) performed by Resource Development Inc. (RDi) for the Bunker Hill Project.

The main objectives of the test work included the following:

1. Establish a process flowsheet for lead and zinc recovery that maximizes recovery while maintaining high concentrate grades
2. Target significant operating improvements such as rougher flotation at a coarse grind size, minimize entrainment of sphalerite and arsenopyrite in the lead concentrate, and entrainment of galena in the zinc concentrate.

During this test program SGS reviewed the RDi and historical test work and investigated if the current flowsheet is suitable for this deposit outlined in the mine plan. A series of flotation tests was performed to reconfirm historic results and determine if alternative flowsheet conditions can be found resulting in improved metallurgical performance and operational efficiency. Various particle sizing, pH levels, reagent screening, and different flowsheet configurations were explored to evaluate metallurgical performance of the deposit. Mineralogy and grindability test work was also performed to complement flotation test work. Based on the study, the test conditions of the locked cycle test were confirmed, and 6 cycles (A-F) of the tests were performed.

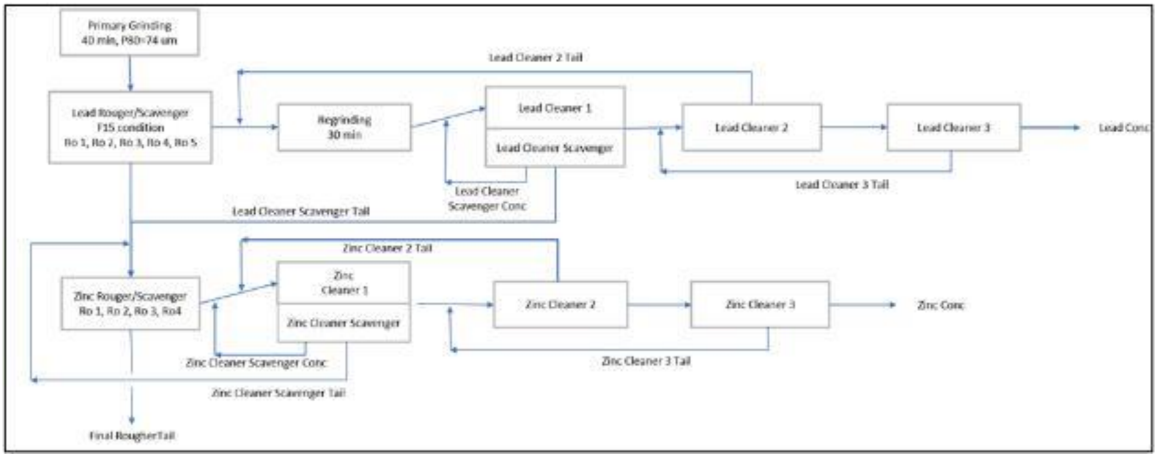


Figure 10-7 Locked-Cycle Test Process Flowsheet (SGS 2022)

The locked cycle testing performed well and produced the high-quality lead and zinc concentrates as shown in the Table 10-7. The grade of lead in the lead concentrate was 59.5% and the zinc in the zinc concentrate was 57.5%. The iron and arsenic in the lead concentrate were very low, they were 7.7% and 0.7%, respectively. The iron and arsenic in the zinc concentrate were also very low, they were 4.19% and 0.2%, respectively.

Table 10-7 Locked-Cycle Flotation Results (SGS 2022)

Metallurgical Projection (Cycles D-F)

Product	Weight		Assays, %, g/t						% Distribution					
	Dry	%	Pb	Zn	Fe	S	As	Ag	Pb	Zn	Fe	S	As	Ag
Pb 3rd Cleaner Concentrate	541.6	4.5	59.5	9.38	7.70	19.4	7173	972	81.7	6.7	6.3	11.2	16.3	77.1
Zn 3rd Cleaner Concentrate	1055.0	8.8	2.61	57.5	4.19	31.4	2118	77.6	7.0	80.5	6.6	35.3	9.4	12.0
Rougher Tail	10432.6	86.7	0.43	0.92	5.57	4.82	1697	7.2	11.3	12.8	87.1	53.6	74.3	10.9
Head (calc.)	12029.2	100.0	3.28	6.27	5.54	7.81	1981	56.8	100.0	100.0	100.0	100.0	100.0	100.0

However, the zinc recovery was lower than expected. One of the reasons was the mass pull. Cycles E and F had very high zinc grade in the final tails and the mass pull was lower (higher mass of the tailings). Therefore, it is suspected that the zinc rougher wasn't run properly during the cycles E and F. Since the locked-cycle test result was averaged from the cycle D, E and F, high zinc in the tails from the cycle E and F really impacted the zinc recovery significantly. It is advisable to conduct another locked cycle flotation test under the same conditions.

Table 10-8 Assay Analysis of LCT Final Flotation Concentrate (Cycle F)

Sample ID	BH-LCT Pb 3rd Cl Conc Cycle F	BH-LCT Zn 3rd Cl Conc Cycle F
Au, g/t	0.89	---
Ag, g/t	803	< 200
SiO2, %	1.81	2.03
Total S %	19.5	31.1
	%	
Al	0.115	0.067
As	0.75	0.18
Ca	0.124	0.2
Fe	7.38	4.09
K	0.132	0.22
Mg	0.012	0.023
Na	---	<0.01
P	---	<0.006
Pb	60.2	2.96
Ti	0.03	0.03
Zn	9.31	59.2
F	< 0.005	< 0.005
	ppm	
Ba	11	< 5
Be	< 3	< 3
Bi	< 400	< 400
Cd	380	2240
Co	< 200	< 200
Cu	3890	1540
Li	< 800	< 800
Mo	< 300	< 300
Ni	< 300	< 300
Sb	< 2000	< 2000
Se	< 2000	< 2000
Sn	< 800	< 800
Sr	< 10	< 10
Tl	< 2000	< 2000
U	< 400	< 400
Y	< 8	< 8
Cl (HNO3 soluble)	< 10	< 10
F, %	< 0.005	< 0.005
Hg		

Table 10-9 Tail Weights - Lead and Zinc Weights in the Locked Cycle Flotation Tails

Products	Weight		Assay	
	Dry, g	%	Pb, %	Zn, %
Py Rougher Tail A	1609	13.35	0.35	0.19
Py Rougher Tail B	1720	14.27	0.43	0.34
Py Rougher Tail C	1717	14.25	0.45	0.72
Py Rougher Tail D	1726	14.32	0.41	0.24
Py Rougher Tail E	1743	14.47	0.44	1.03
Py Rougher Tail F	1747	14.50	0.43	1.49

10.5 CONCLUSIONS

The following conclusions can be drawn based on the test work completed to date:

- The master composite sample contains 4.1% lead and 6.4% zinc. Precious metals are present with approximately 0.45 g/mt Au and 49.7 g/mt Ag. The sample is high in sulfur at 7.58%, with most of the sulfur present as sulfide sulfur. Arsenic content was significantly higher than previously tested samples at 0.86% As.

- Mineralogical analysis of the master composite sample indicated that nearly half of the sample is made up of sulphides. Sphalerite is the dominant sulfide and occurs in liberated grains at several millimeters in size and as inclusions in quartz, pyrite, and galena at 1 to 50 microns. Galena and pyrite are found in similar quantities. Large galena grains exhibit inclusions of pyrite, chalcopyrite, and tetrahedrite up to 50 microns in size. Galena is also found as inclusions in quartz, pyrite, and sphalerite of up to 75 microns. Arsenopyrite occurs in quartz, pyrite, sphalerite, and galena, with grain sizes ranging from 1 to 100 microns.

- In-place bulk density (SG) testing of coarse ore samples ranged from 2.61 to 3.08 with an average of 2.78.

- Bond Ball Mill Work Index and Bond Abrasion Index testing of the master composite indicate that the sample would be considered medium hardness and very abrasive. BWi was 13.47 kWh/st at a closed size of 100 mesh (150 microns), while the Ai was 0.6137.

- The differential rougher flotation approach was successful at producing separate rougher lead and zinc concentrates. Initial testing indicated a maximum of 92.8% of the lead with 24.8% of zinc reported to the lead rougher concentrate, while a maximum of 80.3% of the zinc reported to the zinc concentrate. Most precious metals reported to the lead rougher concentrate with approximately 87% of the silver and 75% of the gold.

    - Grind series rougher flotation testing indicated that finer grinding produced slight improvements in lead, silver, and gold recovery in the lead rougher concentrate, while reducing the amount of zinc reporting to the lead rougher concentrate.

    - Evaluation of various zinc depressants and dosages indicate slight differences in concentrate grade and metal recovery. Zinc cyanide was as effective at depressing zinc in the lead circuit as the combination of sodium cyanide and zinc sulfate utilized in initial tests. Increased addition of zinc depressants did not significantly affect the overall flotation results. Adding no cyanide for zinc depression resulted in approximately 7% additional zinc reporting to the lead concentrate. Addition of all depressant dosages to the primary grinding mill did not significantly affect the metal grades and recoveries.

    - Evaluation of various collectors in the lead rougher circuit indicate that the metal and mass recovery increases slightly when going from SIPX, to SIPX/Aero 3418A, and even more with SIPX/AP242. The combination SIPX/AP24 provided the highest lead recovery to the lead rougher concentrate, but also the highest zinc content.

    - Kinetic testing indicated that 3 minutes of laboratory flotation time for the lead rougher recovers approximately 90% of the lead. The zinc grade continues to increase as the lead flotation continues and the flotation time should be limited.

- Cleaner flotation testing indicated multiple cleaner stages and regrind are needed to produce marketable concentrates. Three stages of lead cleaners with regrind produced low grade (<50% Pb) lead concentrate with high zinc content (>5% Zn). Three stages of zinc cleaners without regrind produced reasonable grade (>50% Zn) zinc concentrate. Arsenic is the major contaminant in the cleaned concentrates, with the final SGS concentrate elemental analysis values being used in the economic analysis and deleterious element factors of this report.

    - Testing of the historic flowsheet (individual cleaner flotation circuits for lead rougher and zinc rougher with combined lead and zinc scavengers to single regrind) returned high levels of zinc back to the lead circuit since the activated zinc could not be depressed to the zinc concentrate with high dosages of reagents. Scavenger concentrates were combined with their respective rougher concentrates for the remainder of testing.

- ○ Cleaner flotation tests with combined rougher/scavenger concentrates indicated that lead rougher concentrate benefits from regrind to P80 400 mesh, while the zinc rougher concentrate may not need to be reground if the primary grind is P80 200 or finer.
- ○ Higher depressant additions in the lead cleaner circuit increased the lead grade of the final concentrate. Arsenic grade in the cleaned lead concentrates was not significantly changed with additional depressants in the lead rougher or cleaner circuits, or with the use of soda ash for pH control. Slight improvements in lead and zinc recovery were observed with higher depressants.

- ○ Locked-cycle testing recovered 88.2% of the lead (94.7% of rougher recovery) into the lead cleaner concentrate at a grade of 47.6% Pb, and 85.1% of the zinc (95.9% of zinc rougher recovery) into the zinc cleaner concentrate at a grade of 52.4% Zn. The highest lead losses were in the final tails (8.3%), while most zinc losses were from zinc left in the lead circuit (9.2%). Some improvements to these results can be obtained in the commercial operation with fresh feed as noted for several polymetallic operations between laboratory and plant results.
- ○ Locked-cycle testing indicated that the open-cycle cleaner tests could reasonably predict metal grades but underestimate the metal recoveries due to recycling of streams during locked-cycle testing. Based on these results, one can predict the results of locked-cycle tests from open-circuit tests.

- Arsenic test work indicated that arsenic grade in the final lead concentrate is like the grade observed in the lead rougher concentrate for the current master composite as well as the Quill and Utz composites from the previous test program. Approximately 50%-60% of the arsenic is recovered into the lead rougher concentrate even with additional depressants.
- Mineralogical analysis of cleaned concentrates indicated that the lead concentrate contained liberated and non-liberated pyrite and sphalerite with small amounts of quartz. Nearly all arsenopyrite was liberated from the galena. The contaminants generally decreased with finer grind. The zinc concentrate contained mostly zinc, with small amounts of pyrite, galena, arsenopyrite, and quartz.

Table 10-10 Expected Net Recoveries and Final Grades in the Flotation Concentrates[1]

	Units	RDi Final Report LCT April 2022	YaKum Confirmed Model May 2022
Concentrate Mass Pull	%	15.8	15.8
Recovery to Zn Con (Zn)	%	85.1	85.1
Recovery to Pb Con (Pb)	%	88.2	88.2
Recovery to Pb Con (Ag)	%	84.2	84.2
Zn Concentrate (Zn)	%	57.36	58
Pb Concentrate (Pb)	%	46.25	67
Pb Concentrate (Ag)	g/mt	416	416

To the extent known, there are no processing factors or deleterious elements that will have a significant effect on the Project economics or salability of concentrate products. YaKum has confirmed that final concentrate grades realized through the RDi lock cycle testing were not representative of those historically seen at the Bunker Hill Mine and Concentrator plant. Through the initial test work at SGS, it is confirmed that the use of historical concentrate metal grades be used for mineral resource and economic analysis in this Report.

10.6 RECOMMENDATIONS

The following recommendations are made based on the previous study work:

- Complete additional rougher flotation tests to further investigate grind size and reagent suites to achieve coarse rougher flotation, improve separation of lead and zinc, as well as rejection of arsenic. Arsenic was not tracked during the initial rougher flotation testing during this program and zinc levels were higher than expected and not fully rejected in the lead cleaner stages.

- Subsequent cleaner flotation tests would need to be completed with new rougher flotation conditions to determine optimized concentrate grades and metal recoveries.

- Complete solids/liquid separation test work with material from finalized flowsheet to evaluate dry stacking of tailings.

- Process variability samples that cover an expanded range of lead, zinc, and arsenic head grades with the finalized flowsheet to determine the range of concentrate grade and recovery expected during first years of production and/or mine plan stages.

11 MINERAL RESOURCE ESTIMATES

11.1 SUMMARY

Mineral Resource Estimates ("MRE") in this report have been determined by using inverse distance weighting techniques for the Quill, Newgard and UTZ mineralization bodies. Mineral assays were derived from the 2020 drilling program, historic drilling, historic production car samples and channel samples gathered during the summer of 2020. Mineral Resource Estimates have been developed to conform to the Mineral Resource Definitions provided in §229.1300 (Item 1300) of Regulation S-K. Mineral Resources are classified in accordance with the disclosure obligations under §229.1302 (d)(1)(iii)(A) (Item 1302(d)(1)(iii)(A) of Regulation S-K).

Table 11-1 summarizes the Bunker Hill Mineral Resource Estimate, exclusive of Mineral Reserves, as outlined in Instruction 2 to paragraph (b)(96)(iii)(B)(11) of §229.601 of Regulation S-K. Reasonable prospects of eventual economic extraction assume underground mining, mill processing and flotation of Pb and Zn concentrates. Mineral resource estimates are reported at a net smelter return (NSR) cutoff of $70 per ton.

Net smelter return (NSR) is defined as the return from sales of concentrates, expressed in US$/t, i.e.: NSR = (Contained metal) * (Metallurgical recoveries) * (Metal Payability %) * (Metal prices) – (Treatment, refining, transport and other selling costs). NSR values are estimated using metallurgical recoveries of 85.1%, 84.2% and 88.2% for Zn, Ag and Pb respectively, and concentrate grades of 58% Zn in zinc concentrate, and 67% Pb and 12.13 oz/ton Ag in lead concentrate.

Resources were estimated using the selling prices of $20/oz (troy) for Silver, $1.00/lb for Lead, and $1.20/lb for Zinc. The selling prices were guided by analysis of the CIBC Global Mining Group's Analyst Consensus Commodity Price Forecast for each respective metal as of the effective date of the Mineral Resource Estimate.

Table 11-1 Bunker Hill Mine Mineral Resource Estimate Exclusive of Mineral Reserves– NSR $70/ton cut off – Ag selling price of $20/oz (troy), Lead selling price of $1.00/lb, Zn selling price of $1.20/lb. Effective date of August 29, 2022)

Classification	Ton (x1,000)	NSR ($/Ton)	Ag Oz/Ton	Ag Oz (x1,000)	Pb %	Pb Lbs. (x1,000)	Zn %	Zn Lbs. (x1,000)
Measured (M)	2,374	$ 119.60	1.01	2,404	2.46	116,574	5.37	254,811
Indicated (I)	4,662	$ 119.81	1.00	4,657	2.37	221,295	5.48	510,964
Total M & I	**7,036**	**$ 119.74**	**1.00**	**7,061**	**2.40**	**337,869**	**5.44**	**765,774**
Inferred	6,943	$ 126.28	1.52	10,532	2.87	398,901	4.96	688,482

The estimates of mineral resources may be materially affected if mining, metallurgical, or infrastructure factors change from those currently assumed at Bunker. Estimates of inferred mineral resources have significant geological uncertainty and it should not be assumed that all or any part of an inferred mineral resource will be converted to the measured or indicated categories of confidence. Mineral resources that are not mineral reserves do not meet the threshold for reserve modifying factors, such as estimated economic viability, that would allow for conversion to mineral reserves.

Project mineralization extends to great depths accessible by a complicated system of shafts to access levels and mine development headings. The mine is flooded up to the 11 Level of the mine. Other than pumping water according to EPA requirements, and limited care and maintenance, access to the depths of the mine has not been accessible since 1989. For these reasons, nearly two-thirds of the estimated mineral resources are considered to be inferred mineral resources.

The entire length of the MRE is assumed to be geologically continuous but differing in orientation due to underlying lithological constraints and faults. In order to constrain the MRE, three separate mineral domains were constructed to segregate the continuous mineralized zone comprising the UTZ, Quill and Newgard deposits. Figure 11-1shows in plan-view the historic depletion and development solids associated with each section of the mine. Mapping shows that fault structures offset but do not truncate mineralization between the Quill, Newgard and UTZ. Historically, the Quill-Newgard zone of mineralization was mined as a continuous mineralized body and has been constructed as a single domain solid (“QN”).

UTZ was mined as multiple stope blocks separated by the Cate fault which runs roughly parallel to trend of mineralization in the UTZ. Both the hanging wall and foot wall of UTZ was mined, but stopes rarely crossed between the two zones. UTZ has been defined as two domains; the Cate hanging wall (CHW) and the Cate foot wall (CFW) domains.

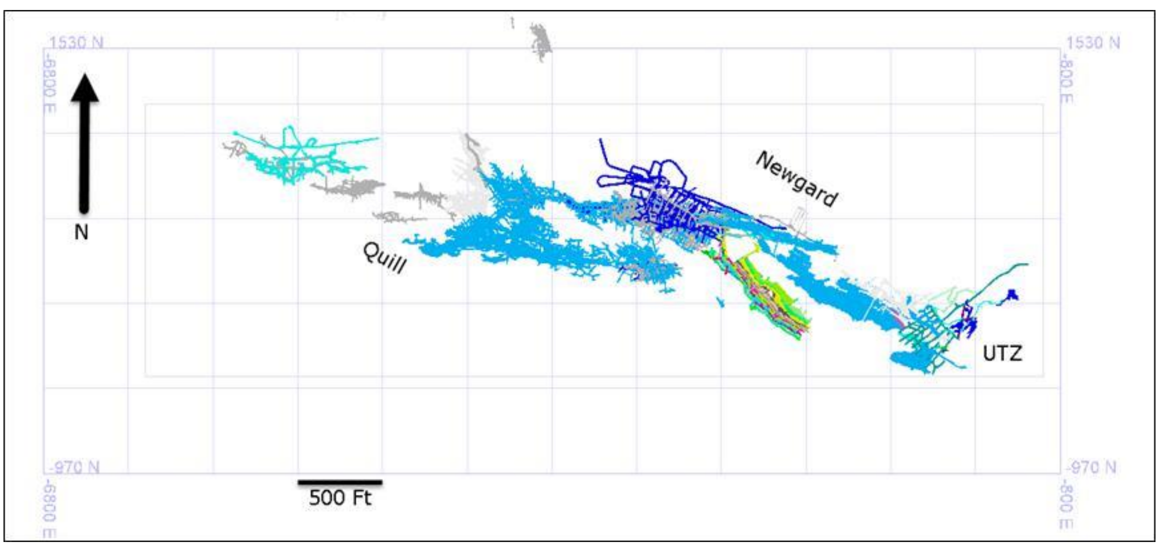


Figure 11-1 Quill, Newgard and UTZ deposits of the Bunker Hill Mine Plan View.

The stopes and workings displayed above have were surveyed during production and drafted on to mylar sheets. The Mylar sheets were recently digitized by Rangefront and converted to solid triangulations. In general mineralization strikes S070E with a nearly vertical dip.

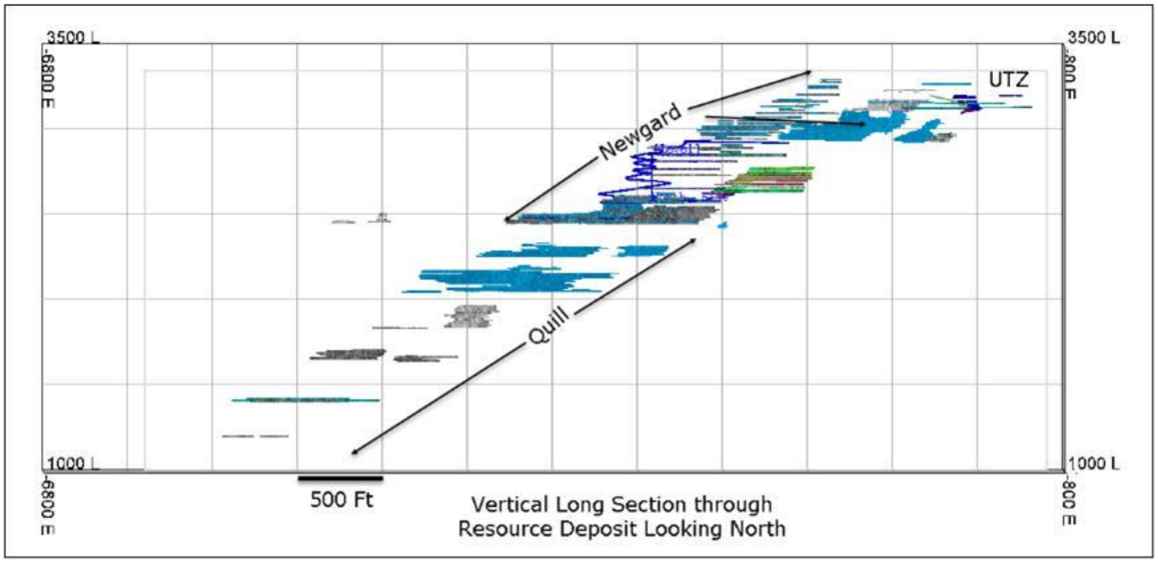


Figure 11-2. Vertical long section through the deposit showing depleted stopes down-dip and mineralized pillars between stopes

Nearly 2,500 vertical feet of continuous mineralization is present in UTZ, Newgard and Quill deposits. All areas between the existing stopes have been estimated using a block model and ID3 estimation techniques. A resource constraining shell (Figure 11-3) has been explicitly designed around known mineralization and used as a limit to resource estimates for the Project. Continued exploration drilling and geological modelling is required to expand mineralization.

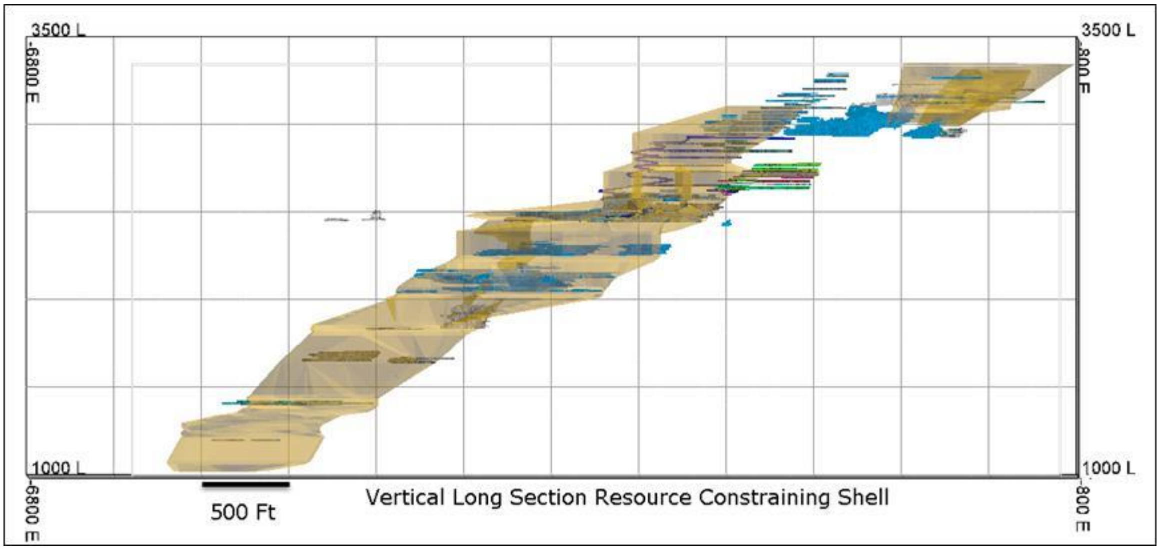


Figure 11-3 Interpretation of mineral envelope based on drilling, mining, and sampling of the deposit

11.2 DATABASE

A single database of composites was used for the Mineral Resource Estimation. Data for the composites was generated from production car samples, channel samples and core drilling data. Table 11-2 through Table 11-4 display database statistics for the three sources of information respectively. Production car samples are used alongside channel samples and drill data as they were found to closely represent mineralization in place as detailed in section 9 of this report.

Table 11-2 Statistics for 2020-2021 Drill Program. 41 Core holes

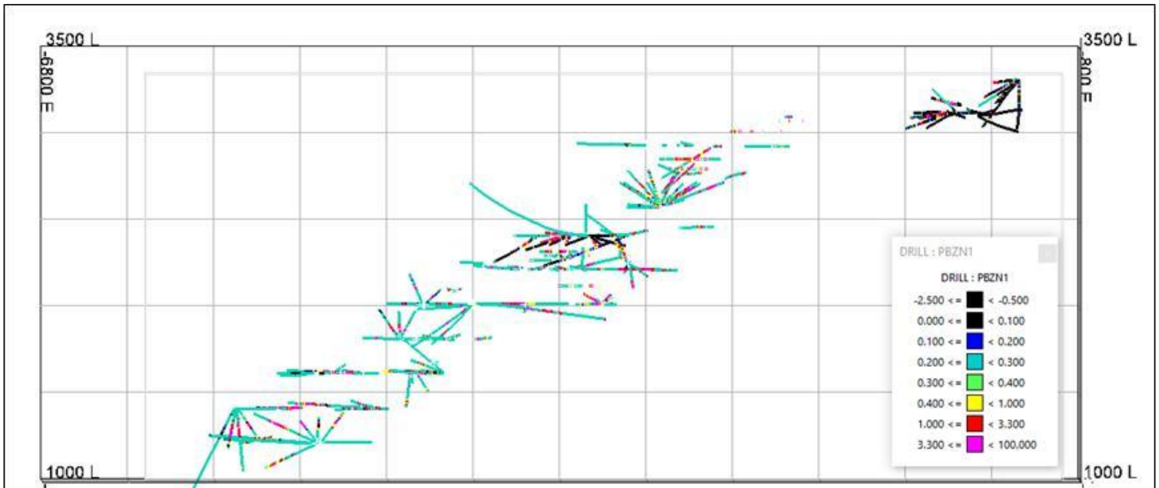
		2020-2021 Drilling Assays					
		ag_opt	**ag_capped**	**pb%**	**pb_capped**	**zn%**	**zn_capped**
	Composites	862	862	862	862	862	862
	Min Value	0.0146	0.0146	0.0005	0.0005	0.0005	0.0005
	Max Value	20.738	15	39.81	30	14.35	13
CFW	**Mean Value**	**0.666**	**0.659**	**1.641**	**1.607**	**0.585**	**0.583**
	Median Value	0.117	0.117	0.251	0.251	0.073	0.073
	Std. Deviation	1.676	1.606	4.260	3.990	1.461	1.447
	count	423	423	423	423	423	423
	min	0.0146	0.0146	0.0005	0.0005	0.0005	0.0005
	max	34.854	10	22	20	26.7	25
CHW	**mean**	**0.743**	**0.669**	**1.642**	**1.637**	**2.760**	**2.756**
	median	0.386	0.386	0.947	0.947	0.972	0.972
	std_dev	1.982	1.000	2.338	2.298	4.444	4.423
	count	363	363	363	363	363	363
	min	0.0146	0.0146	0.001	0.001	0.001	0.001
	max	8.254	8.254	13.15	13.15	23	23
QN	**mean**	**0.346**	**0.346**	**0.576**	**0.576**	**1.019**	**1.019**
	median	0.058	0.058	0.059	0.059	0.09	0.09
	std_dev	0.870	0.870	1.259	1.259	1.984	1.984

Table 11-3 Statistics for pre-2020 Drilling from 220 Core Holes

		Historic Drilling Assays					
		ag_opt	**ag_capped**	**pb%**	**pb_capped**	**zn%**	**zn_capped**
	count	2507	2507	2507	2507	2507	2507
	min	0.01	0.01	0.001	0.001	0.001	0.001
	max	131	25	43.4	25	44.8	32
QN	**mean**	**0.673**	**0.608**	**1.540**	**1.502**	**3.846**	**3.838**
	median	0.2	0.2	0.7	0.7	2.1	2.1
	std_dev	3.311	0.988	2.933	2.517	4.823	4.771

Table 11-4 Statistics for Production Car Samples (4,059 samples) and 2020 Channel Samples (394 Samples)

		Production Samples and 2020 Channel Samples					
		ag_opt	**ag_capped**	**pb%**	**pb_capped**	**zn%**	**zn_capped**
	Composites	-	-	27	27	29	29
	Min Value	-	-	0.1	0.1	0.1	0.1
	Max Value	-	-	3.4	3.4	2.1	2.1
CFW	**Mean Value**	**-**	**-**	**1.048**	**1.048**	**0.548**	**0.548**
	Median Value	-	-	0.8	0.8	0.3	0.3
	Std. Deviation	-	-	0.926	0.926	0.467	0.467
	Composites	85	85	211	211	212	212
	min	0.05	0.05	0.05	0.05	0.01	0.01
	max	4.42	4.42	17.6	17.6	36.9	25
CHW	**mean**	**0.908**	**0.908**	**2.579**	**2.579**	**4.276**	**4.183**
	median	0.7	0.7	1.9	1.9	2.85	2.85
	std_dev	0.725	0.725	2.340	2.340	4.710	4.168
	Composites	3000	3000	4059	4059	4059	4059
	min	0.01	0.01	0.05	0.05	0.01	0.01
	max	32.34	25	30.2	25	39	32
QN	**mean**	**1.063**	**1.060**	**1.773**	**1.771**	**4.427**	**4.390**
	median	0.68	0.68	1.21	1.21	3.325	3.3
	std_dev	1.390	1.341	1.846	1.828	3.751	3.734



261 Drillholes used in the determination of mineral resources at Bunker Hill. 29,830 feet of drilling containing 5,720 Pb, Zn and Ag assays.

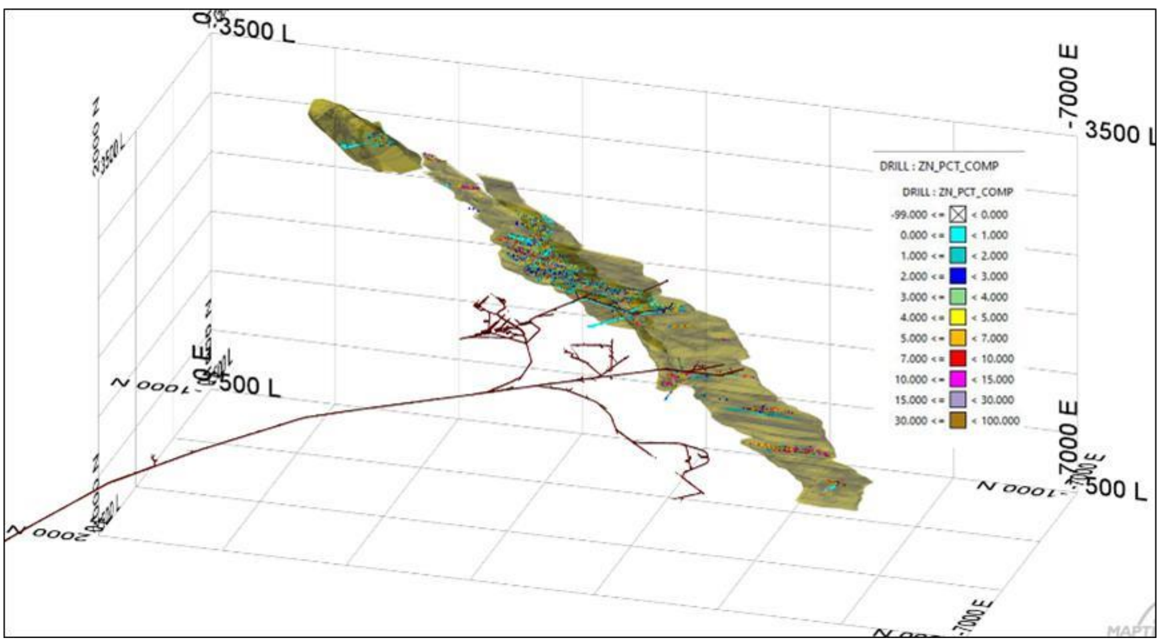


Figure 11-4 Oblique View MRE Domains with Production and Channel Samples Zn%

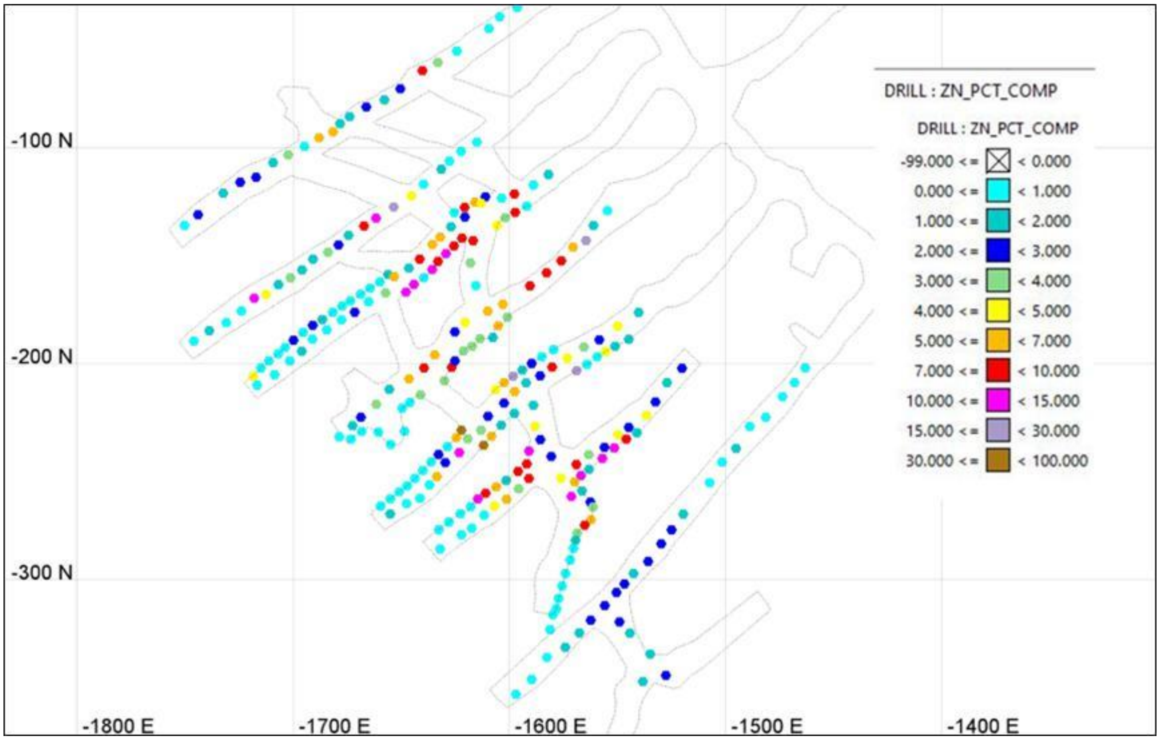


Figure 11-5 5-Level UTZ Channel Samples Zn%

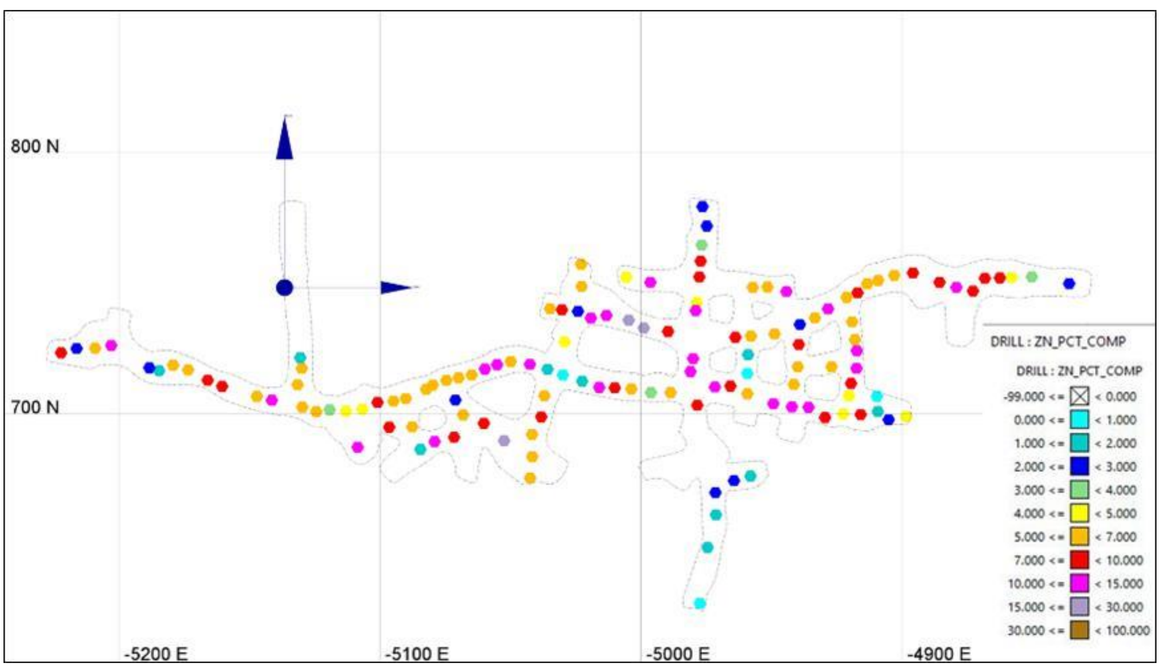


Figure 11-6 13-Level Quill Production Car Samples Zn%

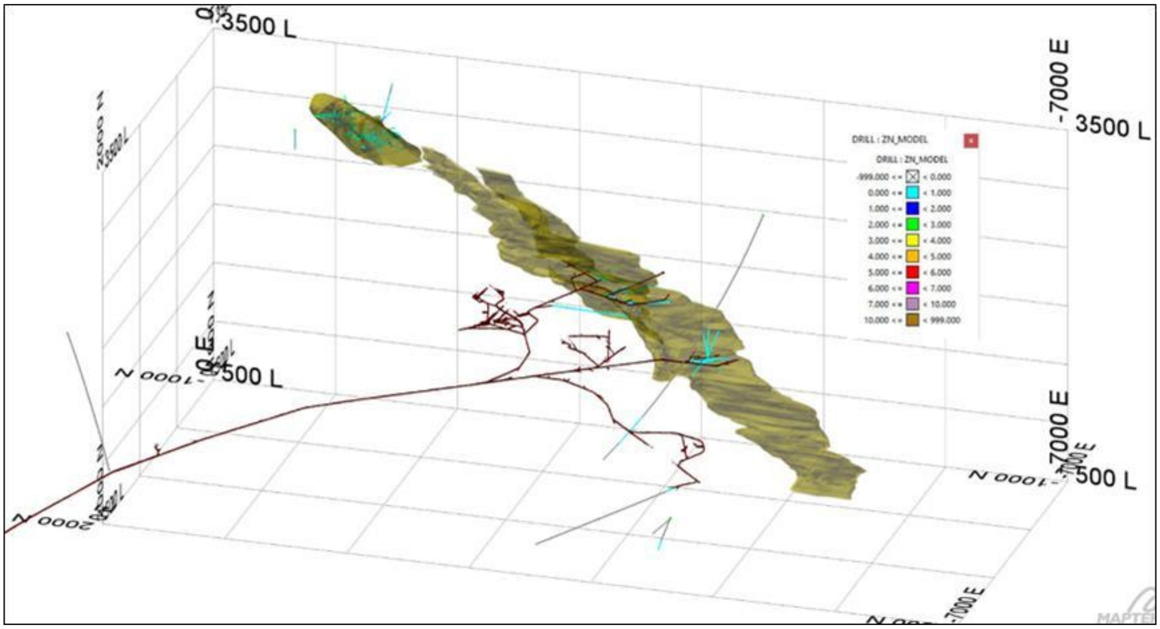


Figure 11-7 Oblique View MRE Domains with 2020-2021 Drilling Zn%

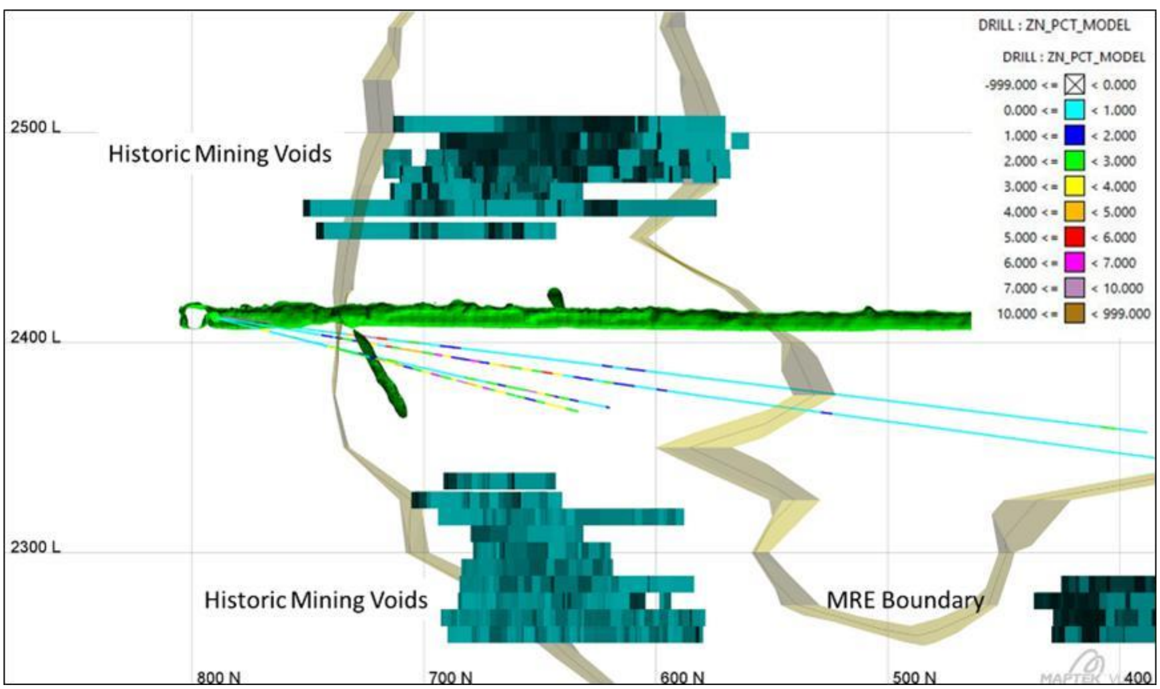


Figure 11-8 Section View DDH 7021A 9-Level Newgard Looking SE (115°). 2020-2021 Drill Holes Zn%

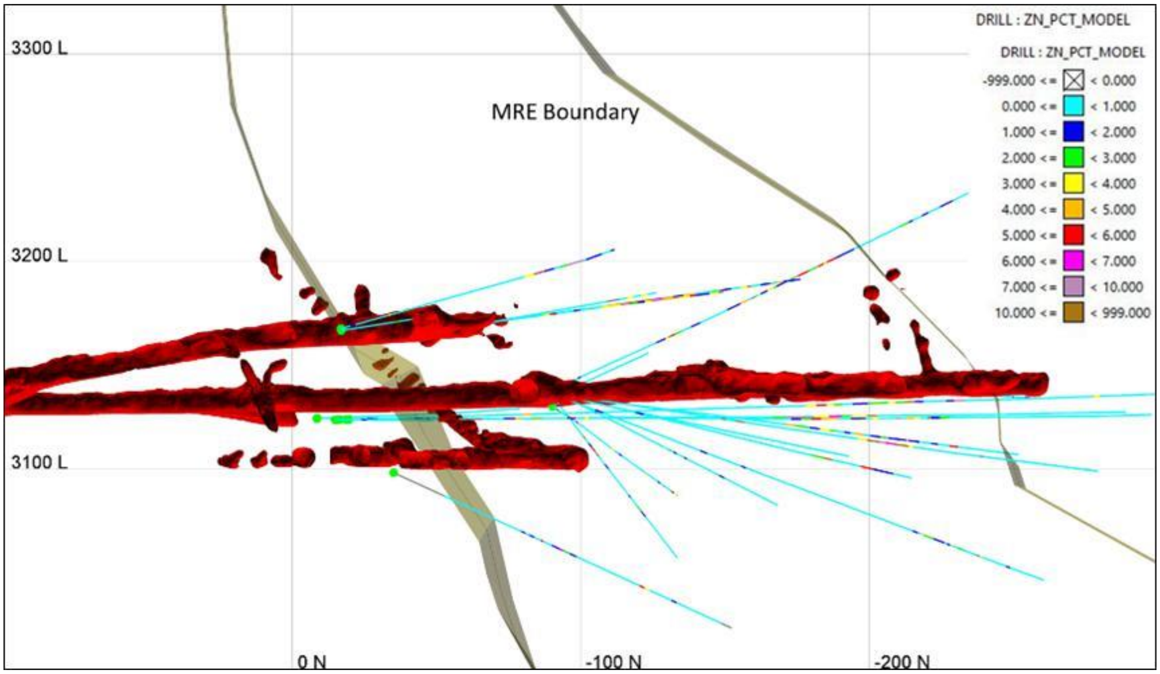


Figure 11-9 Section View DDH 7055 5-Level UTZ Looking SE (135°). 2020-2021 Drill Holes Zn%

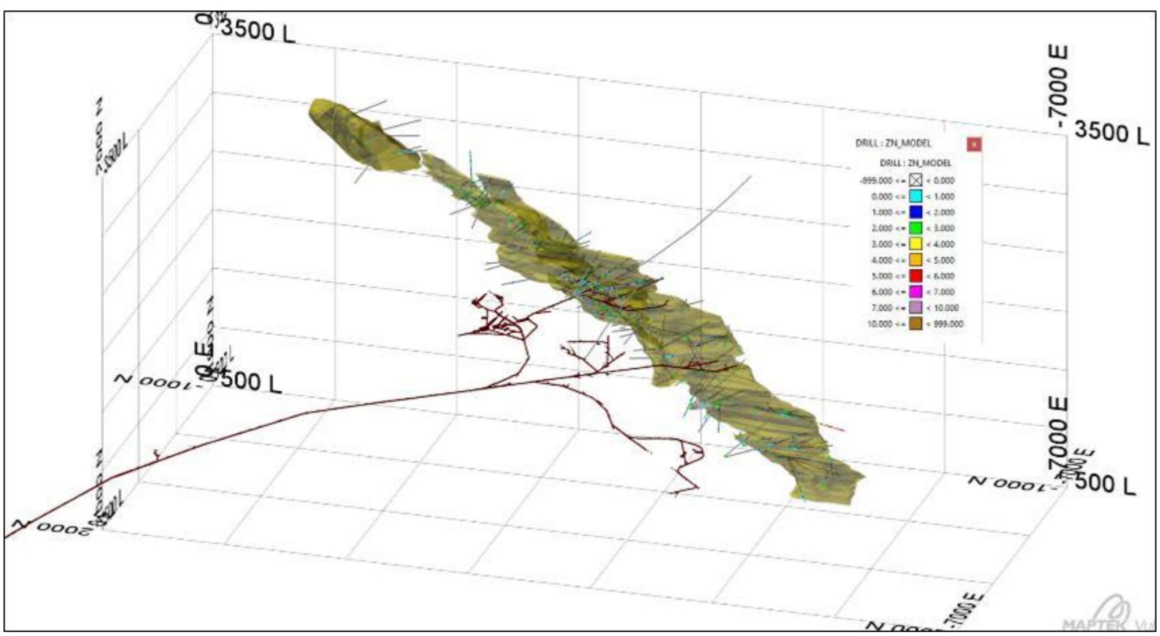


Figure 11-10 Oblique View MRE Domains with Pre-2020 Drilling Zn%

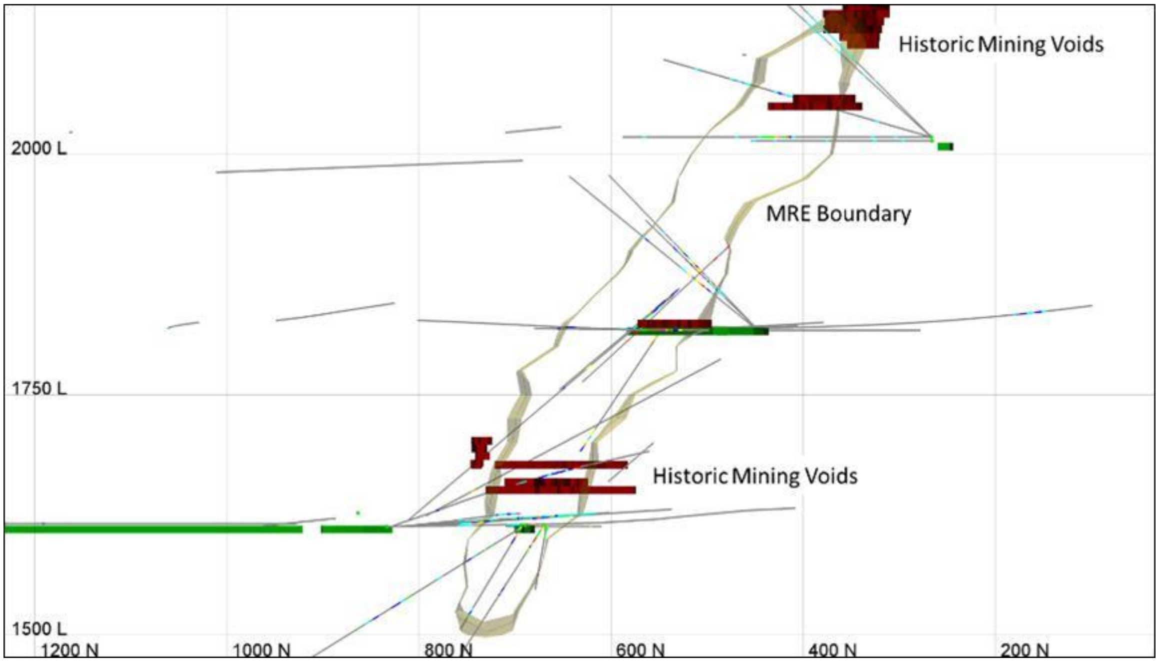


Figure 11-11 Section View DDH 6021 12-Level Quill Looking E (090°). Pre-2020 Drill Holes Zn%

11.3 CAPPING

Utilizing the flag identifier for assay intervals included in each of the domains, capping values were decided based on a per-metal, per-domain basis. Capping was assigned prior to compositing to better reflect actual assayed intervals. Intervals were extracted, and then used to construct CDF plots to look at the upper end assay values and correlation to the rest of the data set. Overall, all groups showed strong correlation throughout the assay value range indicating that capping values should lie close to the upper limit of received values. Table 11-5 shows the various capping values used in the Mineral Estimation parameters.

Table 11-5 Capped Values for Each Metal

	Capped Values		
Domain	Ag_OPT	Pb%	Zn%
CFW	15	30	13
CHW	10	20	25
QN	25	25	32

Capping values assigned to assays prior to compositing.

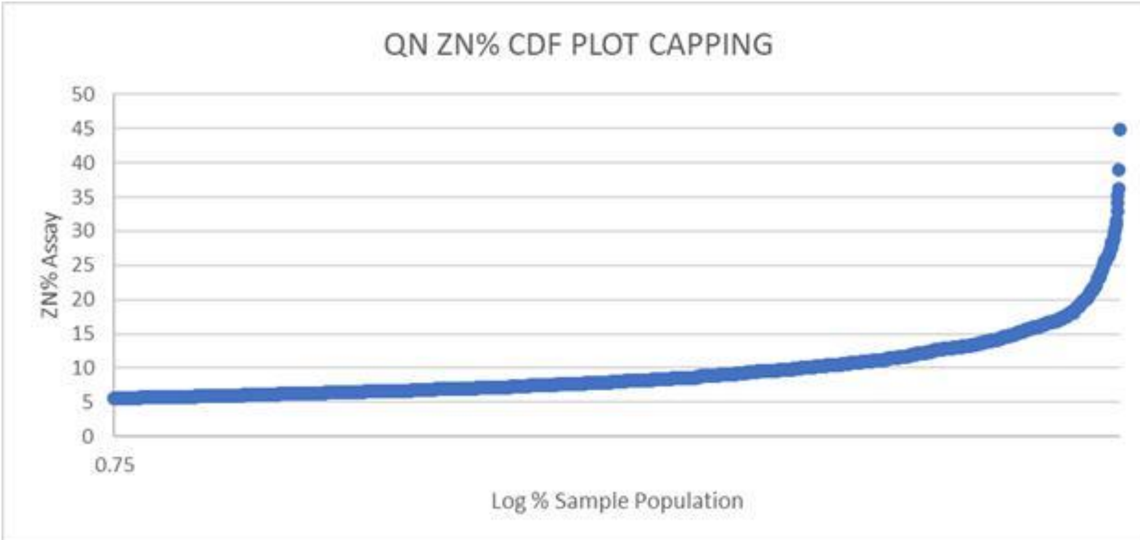


Figure 11-12 CDF Plot for Zn% Assays Within the QN Mineral Domain
Plot displays highest 25% of samples to better highlight capped segment.

After the capping values were determined, the capped field in the database was run through a script designed to adjust all negative and "0" value assays to ½ of the lower detection limit of the assay method for that element, or for historic data, the lowest value assigned in historic logs representing the lowest detection limit at that time for that element. Capping results by domain are included in Table 11-2 through Table 11-4 above.

11.4 COMPOSITING

Subsequent to capping, 5-foot composites were generated for each of the three metals Pb Ag and Zn. There are far fewer Ag values than there are Pb or Zn values in the database. Prior operators did not assay for Ag. Historically Ag was considered a by-product only.

Composites were broken on the domain and geologic boundaries. Production car samples are digitized as point data and were appended directly into the composited database without length adjustment.

11.4.1 DECLUSTERING

Assay data is rarely collected randomly. This is certainly true for assays related to underground mining operations where samples are collected every five feet in crisscross patterns such as Bunker. Large amounts of higher-grade areas contain the most assays. The data is important and should not be changed but there is a requirement to adjust the summary statistics to be representative of the entire volume being estimated. Cell declustering was applied to the capped composites values of the deposit. The parameters and results from the declustering can be seen in Table 11-6, along with the adjusted declustered weight statistics of the composite database. Parameters were set to determine the minimum mean weighted assay values of each of the metals over each of the three domains. This was done to help ensure that estimated grades are representative of the entire volume and especially between levels where the clustered data has been collected every 200 feet vertically. The declustered weights of the database assays were applied on a block-by-block basis in the block model.

A total of 8,598 declustered composite samples are contained in the database used to generate the Mineral Resource Estimation. Mineral Resource Estimates in this report were estimated using a Net Smelter Return (NSR) cutoff value of $70/ton, in addition to the criteria listed in Table 11-9, and thus excluded estimated regions of the Mineral Resource Domain not meeting those criteria. Assay intervals and composites were flagged for inclusion within the Mineral Resource Domain. Not all assay intervals or composite samples contained within the Mineral Resource Domain were used in the estimation of each block contained within the Mineral Resource Estimate as shown in Table 11-10. The Reader is cautioned not to use Table 11-6 as an analogue to the reported Mineral Resource Estimate grades and values.

Table 11-6 Composite Database Statistics and Declustering Parameters

	CFW			CHW			QN		
	Ag_OPT	Pb%	Zn%	Ag_OPT	Pb%	Zn%	Ag_OPT	Pb%	Zn%
N	750	750	750	603	603	603	7245	7245	7245
Min Grade	0.0146	0.0005	0.0005	0.0146	0.0005	0.0005	0.01	0.0005	0.0005
Max Grade	13.572	24.107	9.876	6.589	19.910	25	25	25	32
Mean Grade	**0.486**	**1.174**	**0.454**	**0.482**	**1.756**	**2.835**	**0.689**	**1.562**	**3.930**
Median Grade	0.142	0.293	0.123	0.288	1.2	1.466	0.36	1	2.78
Std. Deviation	1.050	2.441	0.973	0.687	2.074	3.678	1.241	1.923	3.853
Declustered Mean Grade	**0.407**	**1.026**	**0.409**	**0.378**	**1.325**	**2.149**	**0.640**	**1.509**	**3.652**
Min Declus Weight	0.203	0.215	0.234	0.185	0.186	0.186	0.224	0.224	0.207
Max Declus Weight	7.167	8.009	8.853	5.133	5.303	5.303	9.364	9.364	10.898
Mean Declus Weight	1.00000133	1.000004	1	1	1	1	1.00000028	1.00000028	1.00000262
Median Declus Weight	0.6635	0.68	0.6565	0.589	0.594	0.594	0.736	0.736	0.745
Std. Dev. Declus Weight	0.897	0.924	0.976	0.906	0.907	0.907	0.820	0.820	0.811
Declus Cell Size (Ft)	72.819	88.524	93.758	85.906	80.671	80.671	78.054	78.054	75.436

11.5 DENSITY

BHMC started a systematic determination of the specific gravity of the mineral types during the 2020 drilling campaign. There has not been enough data collected to determine a variance for the deposit at this time. A tonnage factor of 11.3 Ft^3/t was applied to mineralized material of the Bunker Hill mine throughout the decades. The same factor has been applied to the MRE.

11.6 BLOCK MODEL

Two separate block models were created. One for UTZ and one for Quill-Newgard. The models were constructed to best capture the geometries the domains. This helps recognize the shallower dip of UTZ. This is also important for subsequent mine planning exercises. Models were populated with physical and estimation variables. Block tonnages have been by flagging blocks within historic mined-out or development solids. Depletion represents percentages of the block mined, and these values were accounted for in all reporting stated for the MRE.

Table 11-7 Block Model Construction Details

Model	Bearing	Plunge	Dip	X-Length	Y-Length	Z-Length
UTZ	310°	0°	0°	5'	5'	2.5'
QN	285°	0°	0°	5'	5'	5'

UTZ Model zone contains both the Cfw and Chw domains

11.7 MINERAL RESOURCE ESTIMATION

Search parameters for the estimation ellipses were established using previous geological maps and production data from various levels of the mine associated with the MRE mineralization.

Table 11-8 Grade Estimation Search Parameters

Domain	Bearing	Plunge	Dip	Major Axis	Semi-Minor Axis	Minor axis	Min Sample	Max Sample	Sample Limits
cfw/chw	310°	-45°	-40°	150'	50'	100'	3	15	5/ddh
qn	285°	-35°	0°	350'	100'	250'	3	15	5/ddh

Cfw/Chw domains were estimated with the same parameters

11.8 GRADE ESTIMATION

Metal grades for the mineral resource are estimated using Inverse Distance Weighting. Inverse distance methods are a suite of weighted average estimation methods. These result in estimates that are smoothed versions of the original sample data. Inverse distance methods are based on calculating weights for the samples based on the distance from the samples to the centroid of a model block. This is essentially a linear estimate where sample weights are assigned to composite values for all composites used in the estimate. The calculation of the weights is based on the inverse of the distance between the composite and the center of the block being estimated. Sample weights are standardized to a sum of 1 to ensure there is not a globally biased estimate. In the mining industry there are two common exponents used, Inverse Distance squared (ID2) and Inverse Distance cubed (ID3). ID3 is used when large weights are desired for the closest composites. This is applicable when the variable being estimated is erratic and the current data spacing is weighted (declustered) relative to the data that would be available for mineral boundary decision making. Such as with metallic distributions of mineralization. ID3 methodologies are widely used in the mining industry and have proven through the decades to be an acceptable and reliable methodology for the estimation of metal distributions in both large-scale disseminated and tightly concentrated vein type mineral deposits.

Three-pass Inverse Distance Cubed (ID3) estimates were run for each of the composite metal values (Ag, Pb, Zn) with the same parameters for each metal. Capped database values were used for all estimates. Results from visual, nearest-neighbor and statistical analysis showed the ID3 model to well represent actual assay values versus estimated grade over both the QN and UTZ models.

Figure 11-13shows the final mineral estimate distribution for Zinc for the three domains.

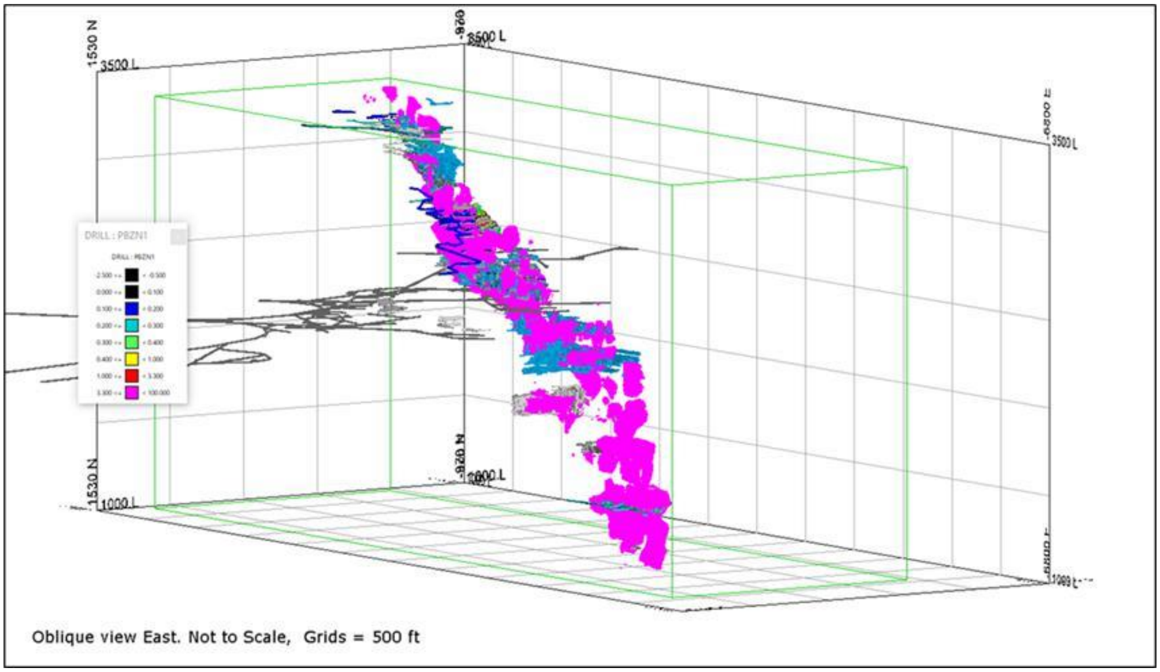


Figure 11-13 Estimated Zinc Mineralization

11.9 RESOURCE CLASSIFICATION

Mineral resources are classified in accordance with §229.1302(d)(1)(iii)(A) (Item 1302(d)(1)(iii)(A of Regulation S-K). Mineralization at Bunker Hill has been categorized as Inferred Mineral Resources, Indicated Mineral Resources and Measured Mineral Resources, based upon increasing levels of confidence in various physical characteristics of the deposit. Drill hole spacing, search neighborhoods, metallurgical geological confidence and many other factors were used to give confidence in the MRE for the Project. Geological modeling for Bunker Hill honors the geological information and knowledge of the mineral deposit. The location of the samples and the assay data are sufficiently reliable to support resource evaluation.

Classification of mineral resources for Bunker Hill is based on the distance to the nearest samples used to derive the metal grades for each individual block in the deposit. A minimum of three samples is required for the estimate to be considered a resource of any confidence. Classification criteria are summarized in Table 11-9.

Table 11-9 Classification Parameters

Resource Class	Samples Used for Estimation	DDH Used for Estimation	Sample Nearest-Neighbor Distance
Measured	>= 8	>= 4	<= 30'
Indicated	>= 6	>= 3	<= 50'
Inferred	>= 3	>= 3	<= 85'

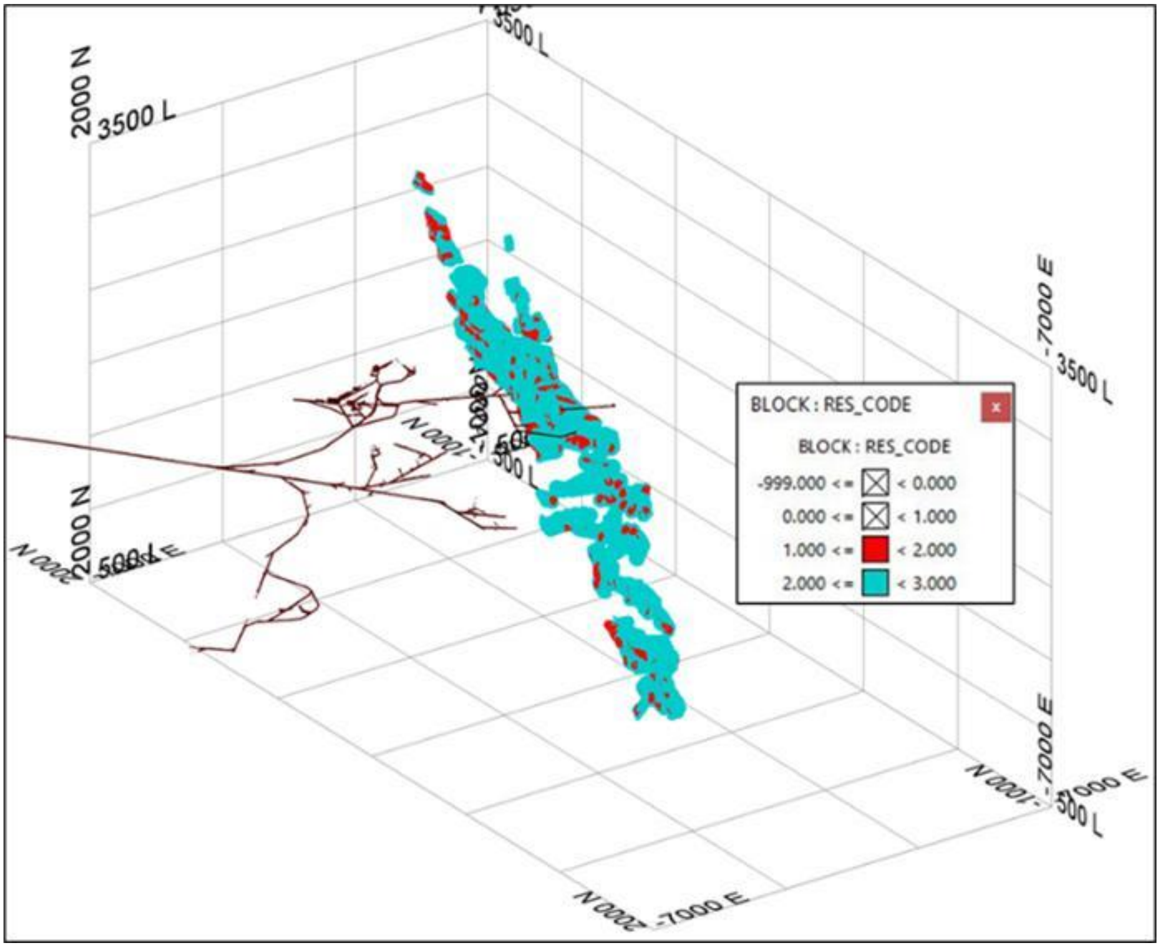


Figure 11-14 Resource Classification Distribution of Quill and Newgard

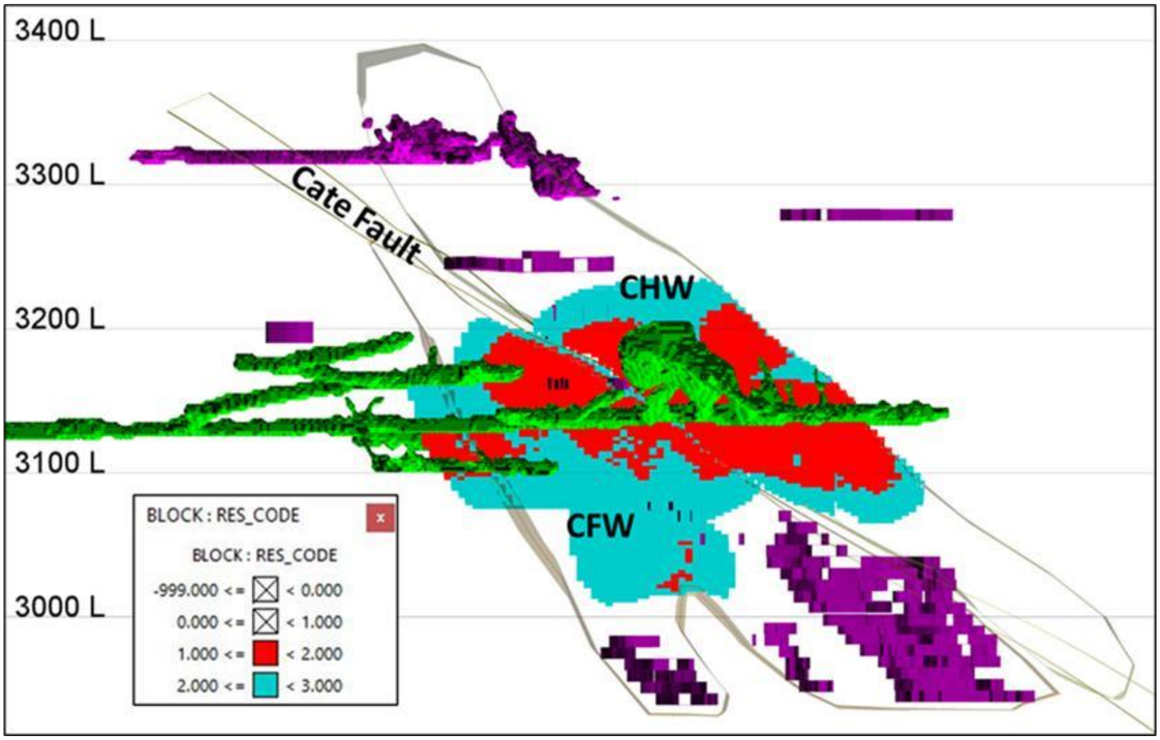


Figure 11-15 Resource Classification for UTZ Model Sections. Section view looking N45E. Measured blocks shown in Red, Indicated blocks shown as Teal.

11.10 MINERAL RESOURCE ESTIMATE DETAILS AND SENSITIVITIES

Tables below illustrate the Mineral Resource Estimate for the Bunker Hill Mine, as well as various sensitivity analyses applied to cutoff grades, NSR and metals prices.

Table 11-10 summarizes the Bunker Hill Mineral Resource estimate exclusive of Mineral Reserves, classified in accordance with §229.1302(d)(1)(iii)(A) (Item 1302(d)(1)(iii)(A) of Regulation S-K). Reasonable prospects of eventual economic extraction, defined in this section of the report, assume underground mining, mill processing and flotation. Mineralization at polymetallic mines typically require separate Pb flotation and Zn flotation circuits. Mineral resources are estimated at $70/ton NSR.

Net smelter return (NSR) is defined as the return from sales of concentrates, expressed in US$/t, i.e.: NSR = (Contained metal) * (Metallurgical recoveries) * (Metal Payability %) * (Metal prices) – (Treatment, refining, transport and other selling costs). NSR values are estimated using updated using metallurgical recoveries of 85.1%, 84.2% and 88.2% for Zn, Ag and Pb respectively, and concentrate grades of 58% Zn in zinc concentrate, and 67% Pb and 12.13 oz/ton Ag in lead concentrate.

Table 11-10 Bunker Hill Mine Mineral Resource Estimate Exclusive of Mineral Reserves – NSR $70/ton cut off – Ag selling price of $20/oz (troy), Lead selling price of $1.00/lb, Zn selling price of $1.20/lb. Effective date of August29, 2022

Classification	Ton (x1,000)	NSR ($/Ton)	Ag Oz/Ton	Ag Oz (x1,000)	Pb %	Pb Lbs. (x1,000)	Zn %	Zn Lbs. (x1,000)
Measured (M)	2,374	$ 119.60	1.01	2,404	2.46	116,574	5.37	254,811
Indicated (I)	4,662	$ 119.81	1.00	4,657	2.37	221,295	5.48	510,964
Total M & I	**7,036**	**$ 119.74**	**1.00**	**7,061**	**2.40**	**337,869**	**5.44**	**765,774**
Inferred	6,943	$ 126.28	1.52	10,532	2.87	398,901	4.96	688,482

The estimates of mineral resources may be materially affected if mining, metallurgical, or infrastructure factors change from those currently assumed at Bunker. Estimates of inferred mineral resources have significant geological uncertainty and it should not be assumed that all or any part of an inferred mineral resource will be converted to the measured or indicated categories of confidence. Mineral resources that are not mineral reserves do not meet the threshold for reserve modifying factors, such as estimated economic viability, that would allow for conversion to mineral reserves.

Estimates in Table 11 10 have been rounded to reflect the accuracy of the estimate and may not sum due to rounding.

11.11 GRADE SENSITIVITY ANALYSIS

Mineral resources are sensitive to the selection of a cut-off NSR. To illustrate this sensitivity, the block quantities and grade estimates for the estimated mineralization are presented in Table 11-11 at linear increases in the cut-off grades for Measured, Indicated and Inferred mineral resources inclusive of mineral reserves at Bunker. The same results are presented graphically in Figure 11-16. The reader is cautioned that Table 11-11 should not be misconstrued as a mineral resource. The reported quantities and grades are only presented as a sensitivity of the resource model to the selection of varying NSR values. Mineral resources that are not mineral reserves do not meet the threshold for reserve modifying factors, such as estimated economic viability, that would allow for conversion to mineral reserves. Mineral Resources in the sensitivity analysis in Table 11 12 and grade vs tonnage chart in Figure 11 16 are stated as inclusive of Mineral Reserves. The reader is cautioned not to add Mineral Reserves to Mineral Resources.

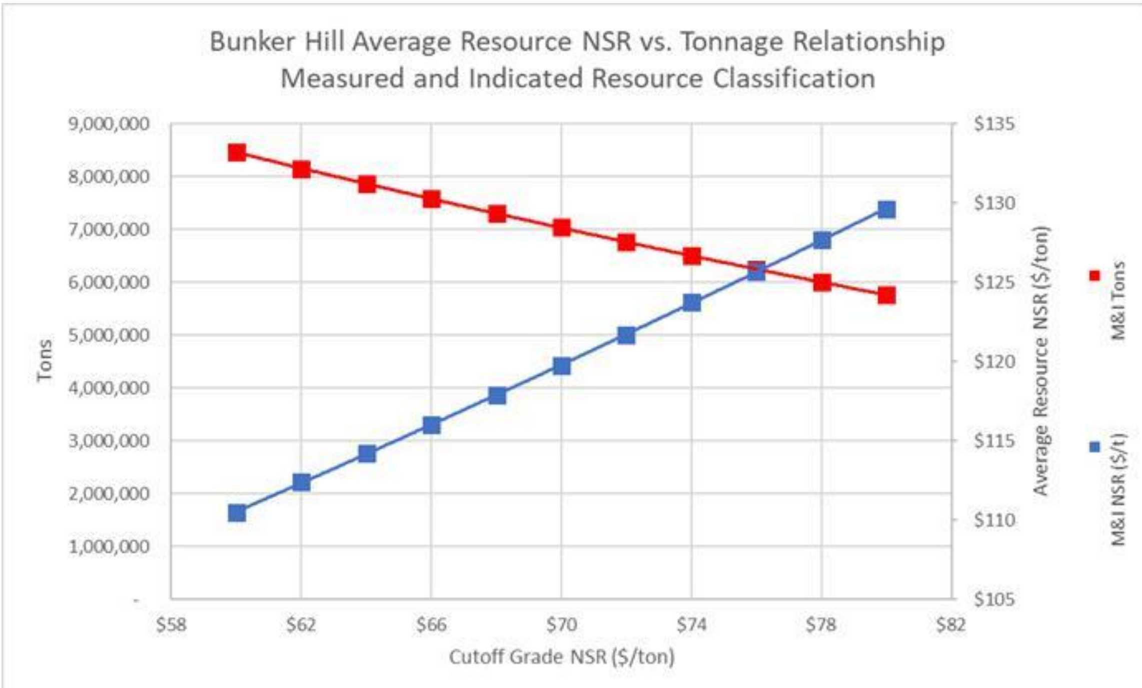
Table 11-11 NSR Cutoff Sensitivity Analysis on Mineral Resources Inclusive of Mineral Reserves

	Measured								Indicated								
Cutoff NSR ($/Ton)	Ton (x1,000)	NSR ($/Ton)	Ag Oz/Ton	Ag Oz (x1,000)	Pb %	Pb Lbs. (x1,000)	Zn %	Zn Lbs. (x1,000)	Ton (x1,000)	NSR ($/Ton)	Ag Oz/Ton	Ag Oz (x1,000)	Pb %	Pb Lbs. (x1,000)	Zn %	Zn Lbs. (x1,000)
60	2,854	$ 110.39	0.93	2,662	2.26	128,790	4.97	283,487	5,608	$ 110.54	0.92	5,133	2.18	244,349	5.07	569,121
62	2,750	$ 112.26	0.95	2,609	2.30	126,341	5.05	277,595	5,400	$ 112.45	0.93	5,041	2.22	239,662	5.16	556,901
64	2,652	$ 114.08	0.97	2,560	2.34	123,887	5.13	271,922	5,209	$ 114.26	0.95	4,948	2.26	235,195	5.23	545,337
66	2,559	$ 115.86	0.98	2,510	2.37	121,492	5.20	266,395	5,022	$ 116.09	0.97	4,852	2.30	230,623	5.32	533,903
68	2,466	$ 117.71	1.00	2,458	2.41	119,053	5.28	260,635	4,840	$ 117.94	0.98	4,754	2.33	225,960	5.40	522,429
70	2,374	$ 119.60	1.01	2,404	2.46	116,574	5.37	254,811	4,662	$ 119.81	1.00	4,657	2.37	221,295	5.48	510,964
72	2,280	$ 121.60	1.03	2,348	2.50	113,944	5.45	248,713	4,483	$ 121.75	1.02	4,557	2.41	216,312	5.57	499,162
74	2,192	$ 123.55	1.05	2,292	2.54	111,374	5.54	242,931	4,303	$ 123.80	1.03	4,452	2.45	211,203	5.66	486,817
76	2,107	$ 125.52	1.06	2,239	2.58	108,848	5.63	237,090	4,135	$ 125.78	1.05	4,354	2.49	206,323	5.75	475,164
78	2,027	$ 127.43	1.08	2,186	2.62	106,356	5.71	231,509	3,974	$ 127.76	1.07	4,257	2.53	201,399	5.83	463,623
80	1,949	$ 129.38	1.10	2,135	2.67	103,883	5.80	225,868	3,816	$ 129.78	1.09	4,158	2.57	196,505	5.92	452,083

	Measured & Indicated								Inferred								
Cutoff NSR ($/Ton)	Ton (x1,000)	NSR ($/Ton)	Ag Oz/Ton	Ag Oz (x1,000)	Pb %	Pb Lbs. (x1,000)	Zn %	Zn Lbs. (x1,000)	Ton (x1,000)	NSR ($/Ton)	Ag Oz/Ton	Ag Oz (x1,000)	Pb %	Pb Lbs. (x1,000)	Zn %	Zn Lbs. (x1,000)
60	8,462	$ 110.49	0.92	7,796	2.20	373,139	5.04	852,608	7,573	$ 121.18	1.44	10,874	2.74	414,425	4.80	726,406
62	8,150	$ 112.38	0.94	7,650	2.25	366,003	5.12	834,495	7,432	$ 122.32	1.45	10,801	2.77	411,204	4.83	718,355
64	7,861	$ 114.20	0.95	7,507	2.28	359,082	5.20	817,259	7,303	$ 123.36	1.47	10,734	2.79	408,204	4.87	710,722
66	7,582	$ 116.01	0.97	7,362	2.32	352,114	5.28	800,298	7,183	$ 124.33	1.49	10,670	2.82	405,233	4.90	703,443
68	7,306	$ 117.86	0.99	7,212	2.36	345,013	5.36	783,064	7,064	$ 125.30	1.50	10,602	2.85	402,125	4.93	696,096
70	7,036	$ 119.74	1.00	7,061	2.40	337,869	5.44	765,774	6,943	$ 126.28	1.52	10,532	2.87	398,901	4.96	688,482
72	6,764	$ 121.70	1.02	6,904	2.44	330,257	5.53	747,875	6,824	$ 127.25	1.53	10,461	2.90	395,596	4.99	680,718
74	6,496	$ 123.71	1.04	6,745	2.48	322,577	5.62	729,747	6,697	$ 128.28	1.55	10,383	2.93	391,953	5.02	672,157
76	6,242	$ 125.69	1.06	6,593	2.52	315,171	5.71	712,254	6,242	$ 125.69	1.06	6,593	2.52	315,171	5.71	712,254
78	6,001	$ 127.65	1.07	6,443	2.56	307,754	5.79	695,132	6,457	$ 130.22	1.58	10,228	2.98	384,696	5.08	655,546
80	5,765	$ 129.64	1.09	6,292	2.61	300,388	5.88	677,951	6,342	$ 131.15	1.60	10,147	3.00	380,983	5.10	647,471

Mineral resources that are not mineral reserves do not meet the threshold for reserve modifying factors, such as estimated economic viability, that would allow for conversion to mineral reserves.

Figure 11-16 Grade vs Tonnage Chart for NSR Cutoff Sensitivity for Bunker Hill Mineral Resources Inclusive of Mineral Reserves



11.12 SENSITIVITY OF MINERALIZATION TO METAL PRICES

The sensitivity of mineralization defined by the evaluation of the mineral inventory at different metal prices was performed by estimating metal prices at -20% and at metal prices +20%. Table 11-12 lists the amount of the mineralization that would support mineral resources at those metal prices. Table 11-12 should not be misconstrued as mineral resources for the Project. These quantities are only meant to describe mineralization volumes related to the described metal selling prices and are not to be considered independent Mineral Resource Estimates. Mineral Resources in the sensitivity analysis in Table 11 12 are stated as inclusive of Mineral Reserves. The reader is cautioned not to add Mineral Reserves to Mineral Resources.

Table 11-12 Metals Price Sensitivity Analysis for Bunker Hill Mineral Resource Estimate Inclusive of Mineral Reserves

	Classification	Ton (x1,000)	NSR ($/Ton)	Ag Oz/Ton	Ag Oz (x1,000)	Pb %	Pb Lbs. (x1,000)	Zn %	Zn Lbs. (x1,000)
Ag: 16$/Oz Pb 0.80 $/lb Zn: 0.96 $/lb	Measured (M)	1,467	$ 107.32	1.22	1,789	2.96	86,761	6.42	188,368
	Indicated (I)	2,903	$ 107.29	1.22	3,553	2.85	165,706	6.51	378,051
	Total M & I	**4,370**	**$ 107.30**	**1.22**	**5,342**	**2.89**	**252,467**	**6.48**	**566,419**
	Inferred	5,650	$ 123.14	1.71	9,650	3.16	357,151	5.24	592,663
	Classification	Ton (x1,000)	NSR ($/Ton)	Ag Oz/Ton	Ag Oz (x1,000)	Pb %	Pb Lbs. (x1,000)	Zn %	Zn Lbs. (x1,000)
Ag: 20$/Oz Pb 1.00 $/lb Zn: 1.20 $/lb	Measured (M)	2,374	$ 119.60	1.01	2,404	2.46	116,574	5.37	254,811
	Indicated (I)	4,662	$ 119.81	1.00	4,657	2.37	221,295	5.48	510,964
	Total M & I	**7,036**	**$ 119.74**	**1.00**	**7,061**	**2.40**	**337,869**	**5.44**	**765,774**
	Inferred	6,943	$ 126.28	1.52	10,532	2.87	398,901	4.96	688,482
	Classification	Ton (x1,000)	NSR ($/Ton)	Ag Oz/Ton	Ag Oz (x1,000)	Pb %	Pb Lbs. (x1,000)	Zn %	Zn Lbs. (x1,000)
Ag: 24$/Oz Pb 1.20 $/lb Zn: 1.44 $/lb	Measured (M)	3,001	$ 133.28	0.91	2,717	2.18	130,562	4.85	291,361
	Indicated (I)	5,948	$ 133.83	0.88	5,248	2.10	249,411	4.95	588,637
	Total M & I	**8,949**	**$ 133.64**	**0.89**	**7,966**	**2.12**	**379,973**	**4.92**	**879,998**
	Inferred	7,798	$ 133.95	1.41	10,960	2.68	418,256	4.74	739,065

11.13 MINERAL RESOURCES THAT ARE NOT MINERAL RESERVES DO NOT MEET THE THRESHOLD FOR RESERVE MODIFYING FACTORS, SUCH AS ESTIMATED ECONOMIC VIABILITY, THAT WOULD ALLOW FOR CONVERSION TO MINERAL RESERVES.QUALIFIED PERSON OPINION – FURTHER WORK

It is of the opinion of the QP that through the recommendations outlined in section 23 of this TRS, issues relating to all applicable technical and economic factors influencing the prospect of economic extraction can be resolved through further work.

12 MINERAL RESERVES

12.1 INTRODUCTION

Mineral Reserves have been estimated for the Quill, Newgard and UTZ sections of the Project. Appropriate portions of Measured and Indicated (M & I) Mineral Resources, meeting the below defined economic and technical criteria, were converted to Probable Mineral Reserves for the mine. Measured Mineral Resources were converted to Probable Mineral Reserves because of uncertainties associated with modifying factors that were taken into account in the conversion from Mineral Resources to Mineral Reserves. Modifying factors considered were limited metallurgical work, minimal bulk mining / sampling of material in the Mineral Resource Estimate and current development advancement. All waste and tailings products are assumed to be placed underground in known open voids. There are surface storage contingency plans in the event additional capacity is required. Continued technical evaluations and advancement of mine development are required to estimate Proven Mineral Reserves.

The Property has been mined continuously since the late 1800's (strikes included) until the early 1980's, with additional limited development, exploration and production up until 1991. Figure 12-1 shows the general site layout and location of the Mineral Reserve for Quill, Newgard and UTZ.

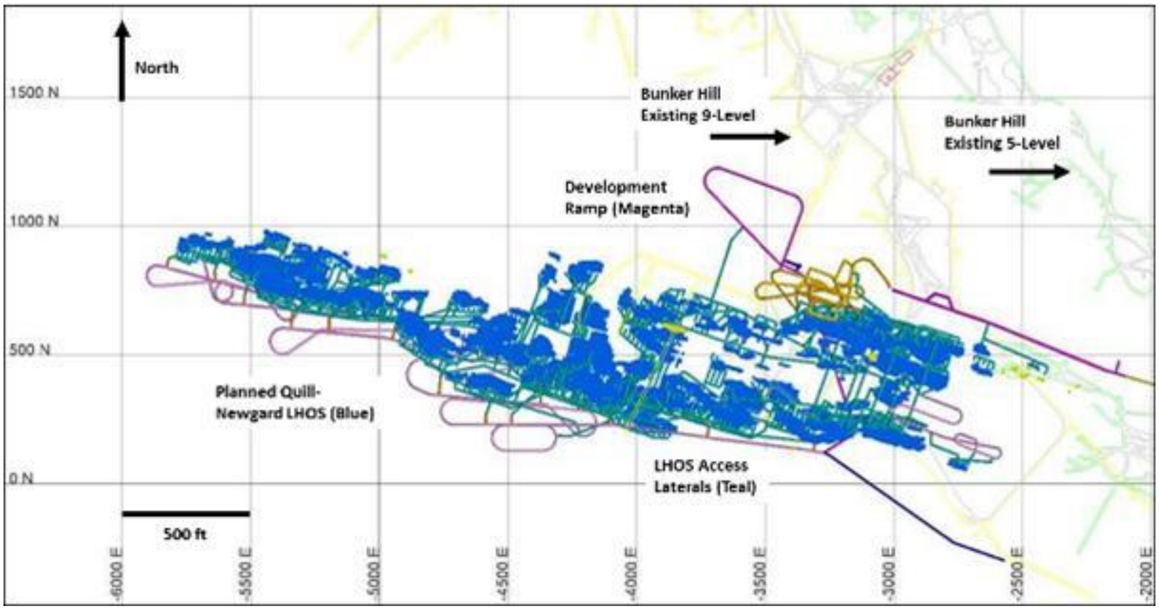


Figure 12-1 Mine Design of Mineral Reserves – Plan View

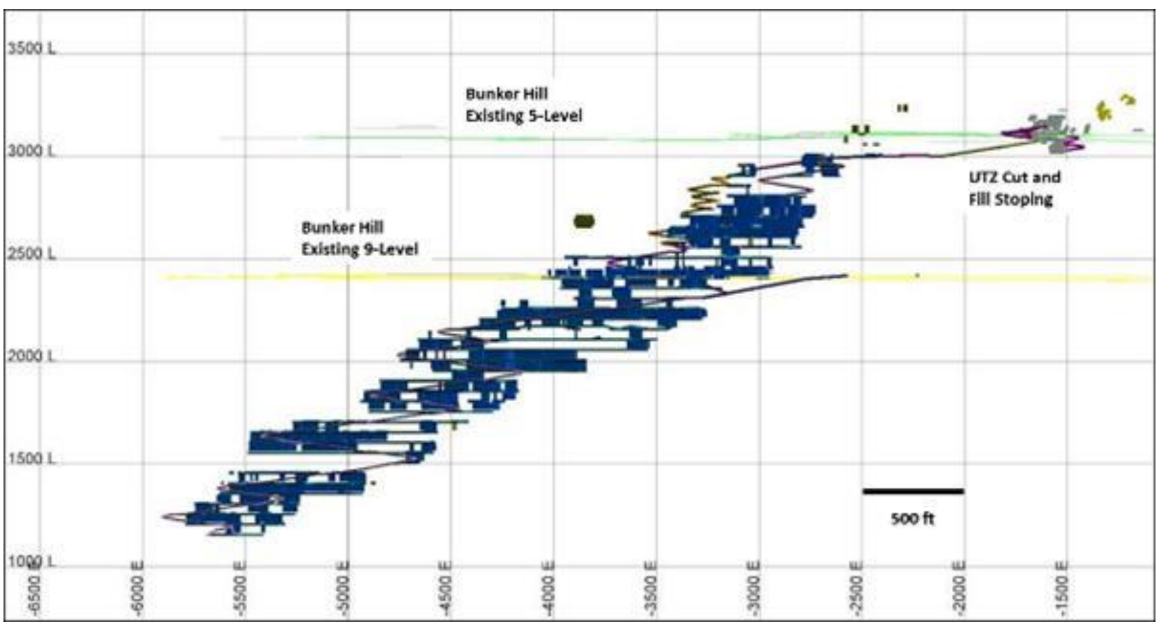


Figure 12-2 Mine Design of Mineral Reserves - Long Section Looking North

12.2 ASSUMPTIONS, METHODS AND PARAMETERS

Measured and Indicated Resources were converted to Probable Mineral Reserves by evaluating modifying factors such as operating cost, projected metal revenues and estimated stope shapes and geometries. The Mineral Reserve Estimate has been prepared in accordance with §229.1302(e)(2) (Item 1302(e)(2) of Regulation S-K). The general widths, plunge and shape of the Quill and Newgard mineralization lends itself well to transverse (perpendicular to strike) long hole open stoping (LHOS) with fill utilizing rubber tire equipment. The UTZ deposit is more amenable to cut-and-fill (CF) methods due to its shape and geometry.

Mineral reserve tonnages are expressed as dry short tons (i.e., no moisture) based on the density values included in the block model database. Maptek's Vulcan Stope Optimization (Optimizer) algorithm was used to developed stope envelopes based on the NSR values of M & I Resources only. A minimum 5-foot buffer was included around the worked-out stope areas. Delineation drilling is planned prior to mining in support the short-term production mine plan and to identify areas that will require back fill prior to mining adjacent areas.

12.2.1 MINING RECOVERY

Extraction of the planned mine shapes is assumed to be 100% of the NSR \$80/ton plan. Breakeven NSR is \$70/ton for LHOS and \$75/ton for cut-and-fill stopes. Details on economic cost assumptions relating to Breakeven NSR grades are described in section 12.2.3.

12.2.2 DILUTION

Planned dilution is included in the stope shapes at a zero grade. External unplanned dilution has been set at 5% as an average for all primary, secondary and CF stopes with zero grade.

12.2.3 NET SMELTER RETURN (NSR)

Net Smelter Return (NSR) is defined as the proceeds from the sale of mineral products after deducting off-site processing, treatment, shipping and other payable and non-payable costs. This is a common method to evaluate the value of polymetallic deposits.

Two concentrate streams will be produced during the milling process: a zinc concentrate and a lead/silver concentrate. Silver follows lead though flotation and is payable under the lead smelting agreement. Silver reporting to the zinc concentrate is considered non-payable as is zinc reporting to the lead concentrate.

Table 12-1 represents the estimated the metal prices, mill attributes and smelter treatment and refining charges used for calculating NSR block model values. The QP used the selling prices of \$20/oz (troy) for Silver, \$1.00/lb for Lead, and \$1.20/lb for Zinc. The selling prices were guided by analysis of the CIBC Global Mining Group's Analyst Consensus Commodity Price Forecast for each respective metal as of the effective date of the Mineral Resource Estimate.

Table 12-1 NSR Calculation Assumptions for Cut-Off Value

Process and Smelter Concentrate Assumptions	Bunker Hill Mining Company	Zinc		Lead		Silver	
	Metal Prices	$1.20	per pound	$1.00	per pound	$20.00	$US/t-oz
		$2,400	$US/short-ton	$2,000	$US/short-ton		
		$2,646	$US/tonne	$2,205	$US/tonne		
	Mill Net Recovery - Payable Metal	85.10%		88.20%		84.20%	
	Concentrate Grade	58.00%		67.00%		12.13	t-oz per short-ton
	Concentrate Moisture	8.00%		8.00%			
	Smelter Metal Charge	$245.97	$US/dry short-ton	$234.18	$US/short-ton	$1.25	$US/t-oz
	Concentrate Land Shipping	$24.38	$US/dry short-ton	$24.97	$US/dry short-ton		Incl. Pb Conc.
	Smelter Payable Metal Value	85.0%		95.0%		95.0%	95.0%

Gold is also present in the lead concentrate, but not payable at this time. The NSR calculation assumes that the zinc concentrate is 58.0% Zn, and the lead concentrate is 67.0% Pb.

12.2.4 STOPE DESIGN METHODOLOGY

The model block size for the Quill and Newgard is 5 ft by 5 ft by 5 ft. Block size for the UTZ is 5 ft by 5 ft by 2.5 ft on the Z-axis. The Selective Mining Unit (SMU) is 10 ft by 10 ft. The Optimizer provides the ability to analyze several cut-off NSR values over a range to projected stope geometry and input criteria. The Optimizer only returns stope shapes that fit the search and input operating criteria, it does not analyze capital development. It is up to designer to interpret the results and determine the optimum plan. It may return stope shapes that may not be contiguous to the main body. These areas must be further analyzed to determine if including these outliers returns the incremental capital investment. Areas that are too small or remote from the main access development to pay back the development costs have been manually removed from the reserve.

Several alternate stope runs were made at NSR values above and below the nominal $70/ton breakeven cut-off value and various input criteria. Cut & Fill runs at 10 ft by 10 ft heading dimensions yielded a reasonable maximum of greatest metal yield. These were compared to the more operationally economical, but less selective LHOS mining method. LHOS runs were made based on 20 ft wide by 50 ft high stopes. The majority of the optimization runs were oriented transverse to strike which is the preferred orientation. LHOS widths were held at 20 ft primary and secondary stope widths for cost and schedule estimation pending final hydraulic fill strength testing and geotechnical work. Expanding secondary stopes to a 30 ft or 35 ft width remains an up-side opportunity. Cut-and-fill stopes at 10 ft by 10 ft were performed for the UTZ area due to the geometry and nature of the deposit. Cut-and-fill methods represent less than 3% of the reserves. Bunker Hill's management team made the decision to base the mine plan on $80/ton NSR for all mining to maximize positive short term cash flow.

12.2.5 CUT-OFF VALUE

The estimated operating cost and thus the breakeven cut-off NSR value is shown in Table 12-2.

Table 12-2 NSR Break Even Cut-Off Value

Bunker Hill Mining Company	LHOS	Cut & Fill
	$/Ore Ton	$/Ore Ton
Processing		
Labor	$ 7.69	$ 7.69
Power	$ 2.38	$ 2.38
Reagents, Supplies & Assay	$11.06	$ 11.06
Total Process	**$ 21.12**	**$ 21.12**
Mining		
Definition Drilling	$ 0.50	$ 0.50
Direct Mining	$ 21.29	$ 36.42
Indirect Mining - Supv & Maintenance	$ 9.42	$ 10.46
Backfilling Cost ($/Ore Ton)	$ 5.33	$ 5.33
Power	$ *1.50*	$ 0.04
Mine Site G/A	$ *9.35*	$ 0.26
Total Mining and G/A	**$ 47.39**	**$ 53.01**
Total NSR BCOG - NSR	**$ 68.51**	**$ 74.13**

(1) Total cost/ton for power and mine site G/A were allocated based on percentage of LHOS and CF tons.
(2) The mine plan is based on an NSR $80 operating cut-off value to maximize short term positive cash flow.
(3) Mining costs escalate as mining advances below the 9-level due to longer haul distances. The above is the average over the life-of-mine.

12.3 MINERAL RESERVE ESTIMATE

Mineral Reserves were classified in accordance with §229.1302(e)(2) (Item 1302(e)(2) of Regulation S-K) Definition Standards. The mineral reserve statement is presented in Table 12-3. Mineral Reserves are estimated at an NSR value cutoff of $80/short ton at the reference point of saleable mill concentrates with an effective date of August 29, 2022. Aside from the previously stated modifying factors and to the extent known, the QP knows of no additional relevant factors that could materially affect the stated Mineral Reserve Estimate.

Table 12-3 Bunker Hill Mineral Reserve Estimate, Reference Saleable Mill Concentrates, August 29, 2022 – Minetech, USA, LLC

Area	Description	Tons (x1,000)	Zn (%)	Pb (%)	Ag (opt)	Contained Ag (koz)	Contained Zn (klbs)	Contained Pb (klbs)	NSR (US$/st)
Newgard and Quill	Probable	3,111	5.87%	2.56%	1.12	3,492	365,118	159,326	133.53
	Plan Dilution	95	-	-	-	-	-	-	-
	Unplanned Dilution	156	-	-	-	-	-	-	-
UTZ	Probable	89	3.93%	3.74%	1.35	95	7,002	6,658	122.66
	Plan Dilution	1	-	-	-	-	-	-	-
	Unplanned Dilution	4			-	-	-	-	-
Total	Probable	3,200	5.81%	2.59%	1.12	3,587	372,120	165,984	133.23
	Plan Dilution	96	-	-	-	-	-	-	-
	Unplanned Dilution	160	-	-	-	-	-	-	-
	Total Plan	***3,360***	***5.30%***	***2.40%***	***1.02***	***3,587***	***186,060***	***82,992***	***126.88***

(1) Plan Dilution is zero grade waste included in the designed stope shapes and probable tonnages
(2) Unplanned dilution is 5% external dilution added at zero grade
(3) Mineral Reserves stated are inclusive of all above mentioned dilutions and are factored for ore loss due to mining activities
(4) Net smelter return (NSR) is defined as the return from sales of concentrates, expressed in US$/t, i.e.: NSR = (Contained metal) * (Metallurgical recoveries) * (Metal Payability %) * (Metal prices) – (Treatment, refining, transport and other selling costs). For the Mineral Reserve Estimate, NSR values were calculated using updated open-cycle metallurgical results including recoveries of 85.1%, 84.2% and 88.2% for Zn, Ag and Pb respectively, and concentrate grades of 58% Zn in zinc concentrate, and 67% Pb and 12.13 oz/ton Ag in lead concentrate.
(5) Mineral Reserves are estimated using a zinc price of $1.20 per pound, silver price of $20.00 per ounce, and lead price of $1.00 per pound.
(6) Historic mining voids, stopes and development drifting have been depleted from the Mineral Reserve Estimate
(7) Totals may not add up due to rounding

13 MINING METHODS

13.1 HISTORICAL MINING AT BUNKER HILL

The Bunker Hill mine was established in 1885. It was operated until 1981 when it was closed due to low metal prices, an extended labor strike, and capital short-falls required to meet new environmental standards. Although attempts were made to modernize and operate the mine until 1991, it was finally closed. By this time Bunker Hill had processed 35.78 million tons of mineralized material with head grades averaging grades of 4.52 opt Ag, 8.76% Pb and 3.67%

Zn, containing 161.72 million ounces of Ag, 3.13 million tons of Pb and 1.31 million tons of Zn. Miners had a specific exemption from the draft during World War II due to the vital need for zinc and lead. Mining and development methods evolved over the years and included square-set timber stoping, open stoping via caving methods, overhand cut-and-fill mining with hydraulic fill and room-and-pillar mining with and without hydraulic fill. Long-hole stoping with fill, cut-and-fill and possibly room-and-pillar mining with fill are the only methods economically viable for sustained operations today. Room-and-pillar mining is not in the current plan.

13.2 MINE ACCESS

A new access ramp is being driven from the 5-level Russell portal (Wardner yard) down to the 6-level which should be completed in October 2022. The existing ramp from 6-level to 8-level will be upgraded for larger traffic and a new ramp from 8-level to 9-level will be driven. 9-level has been and will continue to be the main center of the underground infrastructure. It provides rail access out to the Kellogg portal and main mine yard. A new ramp will be driven from the 9-level down to the 15-level, which is the lowest level developed in the pre-feasibility plan. Levels below the 9-level are spaced at nominal 200 ft intervals. Sub-level access off the main ramps to the working stopes is provided at nominal 50 ft intervals. These levels will be interconnected with raises to provide ventilation and secondary escape routes.

13.3 PLANNED MINING METHODS

13.3.1 LONG-HOLE OPEN STOPING WITH HYDRAULIC FILL

Long-hole open stoping (LHOS) is employed with engineered hydraulic fill. This mining method is less selective than cut-and-fill (CF) mining however can be accomplished at a lower cost due to greater labor efficiencies and reduced primary ground support and hydraulic fill requirement. Long-hole panels are established by driving a top cut and bottom cut into the mineralized zone leaving a bench between the upper and lower cuts. This bench is then extracted utilizing the top cut as drilling and loading access and the lower cut for mucking access. LHOS are typically mucked with remote control equipment for safety. Stope centerlines are laid out and designated as alternating primary and secondary excavations. The primary stopes are taken first with native rock on all sides. As they are mined-out, they are filled with an engineered hydraulic backfill. The secondary stopes are then mined out adjacent to the primary backfill. The fill strength requirements for secondary stopes are typically much less as they are the last excavations taken in an area. Secondary stopes are typically filled with development material and low or zero cement content hydraulic fill. LHOS represents over 97% of the reserve tons. Planned dilution is included in the stope shapes and defined as M & I material below the cut-off value. External dilution is included at 5% for all planned tons and set to zero grade.

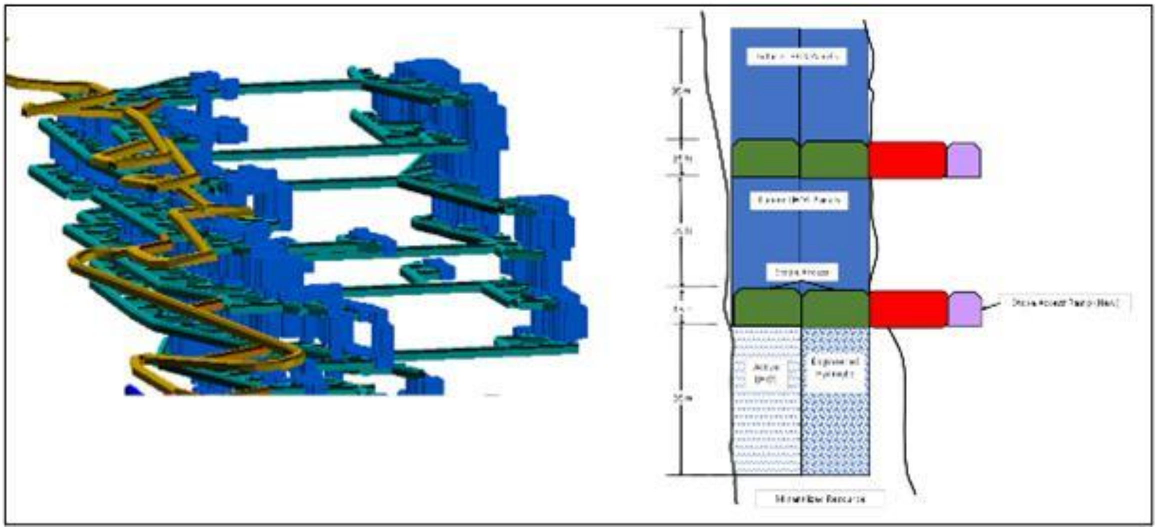


Figure 13-1 Long-hole open stoping

13.3.2 OVERHAND CUT AND FILL MINING

Overhand cut-and-fill mining is a selective method that can maintain grade and minimize dilution. It has been a staple of underground mining in the Coeur d 'Alene district for years. Rubber tire access ramps have replaced raises, slusher and rail car haulage systems and provide greater production efficiencies.

Overhand mining is a bottom-up method to mine successive stope cuts between main mining levels. Typical cut dimensions are estimated at 10 ft by 10 ft. Ground support is installed as required during each cut. As each cut is completed, it is filled with an engineered hydraulic fill. Then the next stope cut is taken on top of the placed fill and the process repeated until the mining panel between main mine levels is extracted.

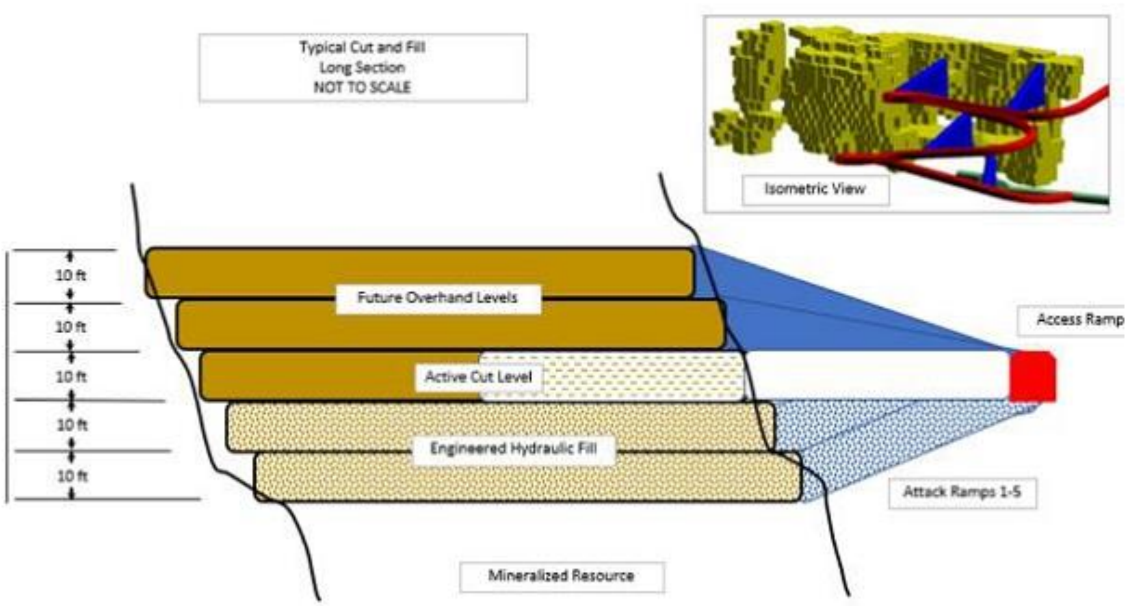


Figure 13-2 Cut and fill mining

The cut and fill stopes are accessed via an inclined ramp developed between levels. The ramp provides ventilation, utilities, and secondary escapeway as well as connecting the mine levels with rubber tire access.

13.4 GEOTECHNICAL PARAMETERS

Beginning in October of 2021 and completed in April of 2022, BHMC conducted a geotechnical investigation of the underground conditions at the Bunker Hill Mine. Data collection involved a data analysis of RQD values logged with previous exploration drilling, geotechnical logging of recently drilled rock cores and an extensive investigation of pre-existing underground excavations and development.

The Bunker Hill Mine is in the Northern Idaho Panhandle region underlain by the Belt-Purcell group of rocks. Mineralization at Bunker Hill is hosted almost exclusively in the upper Revett formation sequence of quartzite dominant rocks. Historically mining followed outcropping veins which did not require extensive geologic interpretation. In the 1970's, after extensive mapping and comparison with drill core, a stratigraphic model was developed, delineating the rocks of Bunker Hill into three major categories.

- Quartzite (Q): Fine grained, thick bedded to massive. Mineralization dominantly hosted in this unit.
- Sericitic Quartzite (SQ): Fine grained, thick to thinly bedded. Interstitial sericitization during metamorphism. Mineralization also hosted in this unit.
- Siltite-Argillite (SA): Dominantly mud, silt or clay protolith. Thinly bedded, planar. Mineralization is not dominantly hosted in this unit.

The ground conditions at Bunker Hill are reported to be good to excellent. Bunker Hill did not have a history of problematic rock burst events as the Silver Valley mines to the east. Bunker Hill is also much shallower than other Silver Valley mines.

13.4.1 UNDERGROUND INVESTIGATION

A site visit was performed by Golder Associates USA Inc. in November of 2021. An underground tour of the mine was conducted to observe the rock mass conditions in the area of previous excavations, future mining areas and develop an understanding of the low RQD values logged in the drill hole database. The tour involved entering through the 5-level Russell Tunnel at Wardner and exiting through the 9-level at the Kellogg Tunnel. Both the UTZ and Quill-Newgard portions at and above the 9-level of the mine were investigated. Some general observations were collected.

- In general, the excavations are stable and mostly unsupported. The quality of the rock mass as observed in the excavations is generally good and there is little variability throughout the mine.
- The RQD values collected during the 2020-2021 drill campaign are consistent with the highly-fractured nature of the core in the boxes, the values are not representative of the favorable stability of the excavations observed during the underground visit.
- The quartzite is a competent bedded rock mass with minor alteration observed as iron staining withing the discontinuities. The water present does not seem to impact the stability of the excavations.
- Rock mass performance seems to be independent of lithology and alteration. However, regional structures do impact the stability of excavations.

13.4.1.1 MCGATLIN CAVE AREA

Historical caving mining area resulted in large open excavations being created that have maintained a stable profile. The McGatlin cave area is approximately 500' in height between 3 sub-levels (Bunker 4, 5 and 6). It is approximately 150' wide across mineralization strike and varies in length along strike. It is unsupported and unfilled. The hanging wall of the openings was structurally controlled by quartzite beds dipping to the south-west that appeared to have an ISRM (International Society of Rock Mechanics) UCS strength estimate of R4, which is classified to be strong. Water was both dripping and flowing from the excavation. No falling or sloughing material was observed at the time. Development in the area was either unsupported or observed to have mechanical anchor bolts with straps in the back.

13.4.1.2 051-LEVEL UTZ FINGERS

The "fingers" on the 5-level of the mine are the upper-most proposed area of future mining in the UTZ portion of the MRE. The development ranges from 10' to 12' in height and is unsupported. The access ramp to the UTZ fingers was inspected where it crosses the Cate Fault. In this section of drift, the dimensions are 25' high and 20' wide with no ground support. The rock mass in the Cate Fault area is quartzite. Discontinuities were observed but no significant dilation or opening along structure greater than 1" were evident. The core holes drilled in this area remain open and in good condition.

Cell mapping was completed in this area to collect rock mass rating (RMR_{76}) data in the fingers where recent panel shots had been taken for metallurgical testing (Figure 13-3). The estimated RMR_{76} of the face mapped is 70%.

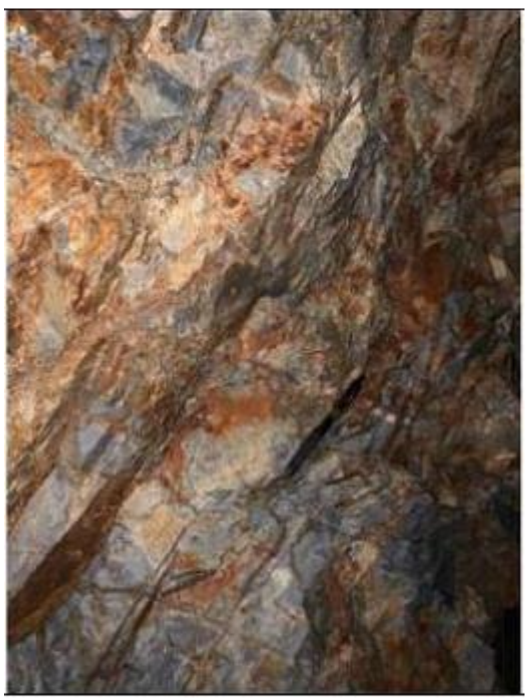


Figure 13-3 Cell Mapping Location 5-Level UTZ Fingers. Pen For Scale.

13.4.1.3 6-LEVEL TO 8-LEVEL RAMP

The area from the 5-level through the 8-level of the mine is accessible through the Cherry shaft and an internal ramp down from 6-level to the 8-level. The upper area of the Quill-Newgard planned stoping areas can be accessed through this internal ramp system. Level 8 of the mine has numerous openings from pervious mining ranging in dimension from 7’ to 18’ high and 6’ to 15’ wide. Most of the excavations are unsupported. Some of the larger intersections (approximately 25’ spans) have metal straps installed with mechanical point anchored bolts. The rock is bedded quartzite with an iron oxide mineral coating and an ISRM strength estimate of R4 which is classified as being strong. Slight overbreak was observed preferentially along the strike of the bedding planes. A few of the pillars were inspected and indication of stress loading or loss of material from the pillars was observed.

Figure 13-4 Development Intersection on the 8-level of the Mine

13.4.1.4 SPAN ANALYSIS OF LARGE UNDERGROUND EXCAVATIONS

A review of the lithology and dimensions of existing large, stable open excavations at Bunker Hill was conducted. Analysis included review of large infrastructure excavations, sub-level cave openings and intersections of development drifting.

Table 13-1 Dimensions of Existing Underground Excavations Used for Span Analysis

Level	Excavation	Excavation ID	Height (ft)	Width (ft)	Length (ft)	Span (ft)
	Access Ramp Intersection	-	25	20	-	-
9 West	Caves (see Figure 18 for ID reference)	1	97	25 to 90	145	25 to 90
6		2	102	10 to 50	166	10 to 50
		3	49	20	80	20
5-6		4	72	40	83	40
		5	76	80	268	80
		6	102	130	321	130
		7	60	40	93	40
		8	362	140	471	140
		9	179	60	234	60
		10	89	25 to 77	138	25 to 77
		11	132	80	190	80
		12	128	120	130	120
		13	128	50 to 120	320	50 to 120

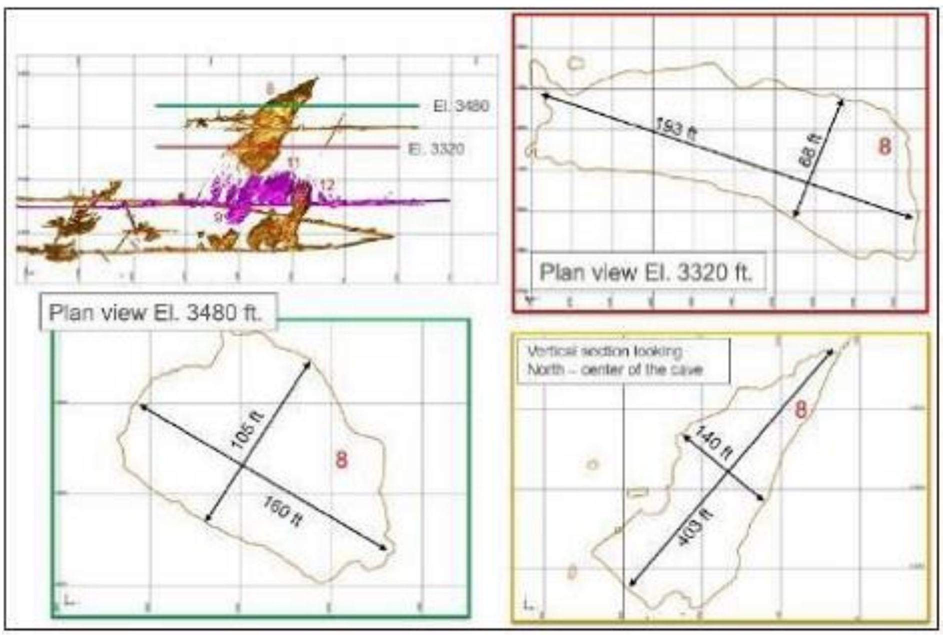


Figure 13-5 Detail on 5-level McGatlin Stope (With Sections) Used for Span Analysis

From this review, and the fact that the large excavations already exist unsupported and are in good condition in a similar geologic setting, it is concluded that the stability of the proposed open stopes of 20' wide, 15' to 85' long and 80' high is likely to be good.

13.4.2 INSPECTION OF DRILL CORE

The core from 17 drill holes was inspected at the core logging facility on site. Most of the core inspected had been split in half for assay. The following observations were made from the split core:

- The core was extremely fractured, much more than would be expected based on underground conditions at the mine.
- The condition of the core observed in the core logging facility and the logged RQD values are not considered representative of the generally favorable stability of the excavations observed underground. The rock mass contains micro-weaknesses that result in fracturing of the core when drilled, but these weaknesses do not adversely impact the stability of the excavations observed underground. Splitting of the core likely resulted in additional fracturing of the core.
- Rock mass characterization (NGI-Q or RMR_{76}) estimated from core logging grossly underestimates the quality of the rock mass. The rock mass does not appear to be well characterized by common rock mass characterization systems (RMR and Q).
- Very few sections of moderate to high alteration were identified in the core in the area of the proposed mining indicating that alteration would not have a significant impact in assessing the stability of excavations.

13.4.3 STRENGTH ESTIMATES

ISRM strength estimates were recorded for a total of 1779' of drill core. A total of 96% of the logged information indicated that the ISRM strength was R4 (50 to 100 Mpa, R4) which is classified as Strong rock.

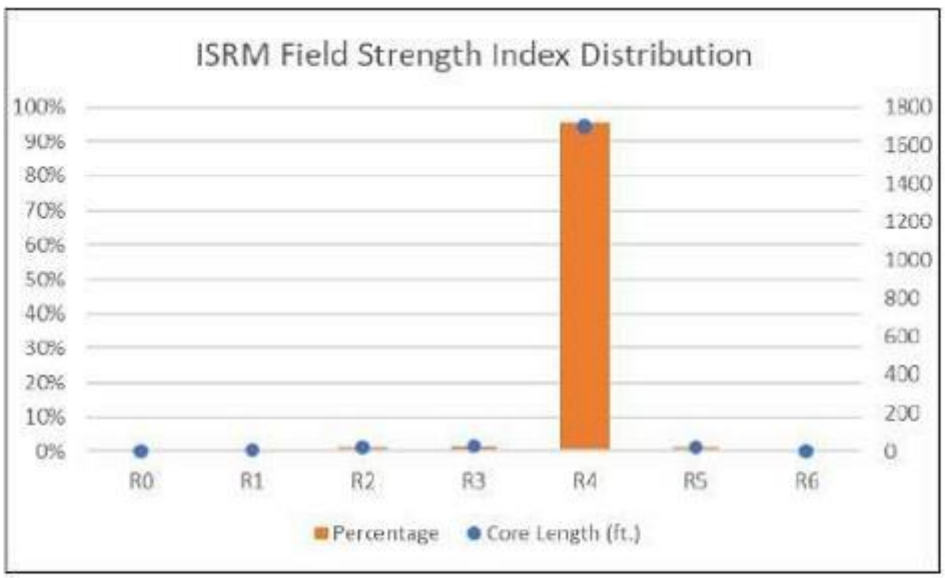


Figure 13-6 ISRM Field Strength Index Distribution (in % and Core Feet Logged)

Core samples were collected and sent to Golder's rock laboratory testing facility in Burnaby, BC Canada for UCS testing. The manner in which each sample failed was recorded as follows:

- Discrete: Shear failure along one discrete feature (weakness)
- Homogeneous: Failure through homogenous rock matrix by extension
- Failure Network: Failure completely along multiple veins, or around clasts, etc
- Combined: Failure by a combination of shear failure on discrete features and extension or shear failure through the homogenous rock matrix

The results correlate with the ISRM strength estimates collected during the site visit, both indicating generally Very Strong Rock (R5) for homogenous failures and Strong Rock (R4) for other failure types.

Table 13-2 Summary of UCS Laboratory Results

Sample Number	Rock Type	Failure Type	UCS (MPa)	ISRM Field Strength Index Class (ISRM, 1981)
7076	Sericitic Quartzite	Failure Network	88.5	Strong (R4)
7076-2	Sericitic Quartzite	Combined	118.3	Very Strong (R5)
7077-2	Sericitic Quartzite	Discrete	80.7	Strong (R4)
7076-3	Siltite Argilite	Homogeneous	132.0	Very Strong (R5)
7078-2	Siltite Argilite	Discrete	53.5	Strong (R4)

13.4.4 GEOTECHNICAL DESIGN

A review of the layout of the development drifts relative to the historical production mining in the UTZ Fingers areas from 8-level up to 5-level was carried out to assess stand-off distances at which there is a low probability of adverse interactions between development and stoping. The historical stand-off distance at the location checked on 8-level was as narrow as 10 ft at some locations but was between 18 ft to 20 ft at higher levels up to 5-level. Golder Associates recommend at least 25 ft of offset distance be maintained for stope access drifts.

13.4.4.1 GROUND SUPPORT RECOMMENDATIONS

Most of the existing excavations underground were unsupported and the stability generally appeared to be good. Mining personnel working in unsupported excavations is a safety concern and ground support is recommended for new excavations. Further rock mass characterization and testing is required to refine the recommendations on adequate ground support requirements for the various development dimensions of future mining activities underground. BHMC plans to use friction anchor rock bolts and a combination of steel mats and chain-link wire to support ground in development drifts with a dimension up to 15’ wide x 15’ high. This is in combination with the use of 8’-long #7 resin grouted rebar with plates and nuts in the back of the drifts. Additional resin grouted rebar ground support will be utilized in intersections where span distances exceed 15’.

Production development should take into consideration the potential impacts of the stress redistributions as mining progresses. BHMC will monitor ground support conditions as mining and development progress deeper in the mine and adjust ground support implementation as required. Development directly adjacent to or driven through structural zones of poor ground conditions will require additional ground support investigations and alterations to the ground support plan associated with development not located in structural zones.

13.4.4.2 HYDRAULIC (PASTE) BACKFILL STRENGTH REQUIREMENTS

LHOS and CF mining methods require backfill upon completion of the stope mining cycle. Planned dimensions of the LHOS are 20 ft wide, 50 ft high and range from 15 ft to over 85 ft long as a single panel. The strength requirement evaluation for paste backfill is based on the free-standing capacity of fill required when a secondary stope is mined and exposes a side wall of the fill mass. Based on the planned stope dimensions in the mine plan, the design UCS is 250 kPa (36.3 pounds per square inch [psi]) for an exposed height of 25m (80’), a length of 8m (25’), a density of 21 kilonewtons per cubic meter (kN/m^3) and a factor of safety (FOS) of 1.5.

13.4.5 RECOMMENDED ADDITIONAL WORK

The above geotechnical assessment by Golder Associates USA should be expanded once additional core drilling has begun. Conservative ground support installation patterns, pillar widths (ramp setbacks), and stope dimensions have been used in the mine plan and cost model based on the QP's experience. There are definite cost advantages to increasing stope dimensions (e.g., 30 ft secondary stope widths).

Core should be logged at the drill by an experienced geotechnical geologist or engineer. Additional down hole televiewer surveys and logging are also recommended.

A conceptual model should be constructed and include domains delineated according to:

- Geomechanical characterization of domains (Q', RMR_{89}, RQD, rock strength, weathering, joint set orientations and joint character).
- Definition of engineering properties of the rock (intact and rock mass as well as joint characteristics and joint strengths).
- Spatial distribution of geomechanical design domains (i.e., domaining by rock type, structural zones or spatial volumes).

The mine should develop and maintain Mathews-Potvin Stability graphs based on this work and modify as required with operating experience.

13.4.6 HYDRAULIC (PASTE) BACKFILL

In Q4 of 2021 BHMC engaged Patterson & Cooke USA Ltd. (P&C) to conduct testing on both tails thickening and a hydraulic (paste) backfill system to meet the identified geotechnical strength requirements. For the testing, approximately 50 gallons of tailings material produced from the metallurgical test program outlined in this report was sent to a P&C testing facility, along with approximately 20 gallons of process water.

13.4.6.1 TAILINGS THICKENING

The first stage in the backfill process will involve the thickening of tailings produced from the mill/process facility located within the mill/process facility building. Initial testing found the tails product to consist of 58.8%m (by mass) solids (density of 2,699 +/-16 kg/m^3), the zero free-water testing showed 75%m solids. Both of these figures result from a 16%m pull concentrate load, the remaining being tails product. Tails product included material from both the Pb and Zn circuits of the processing plant. With continued optimization and variability testing of the process workflow this mass pull % will be adjusted accordingly in future plant engineering but is not projected to materially change.

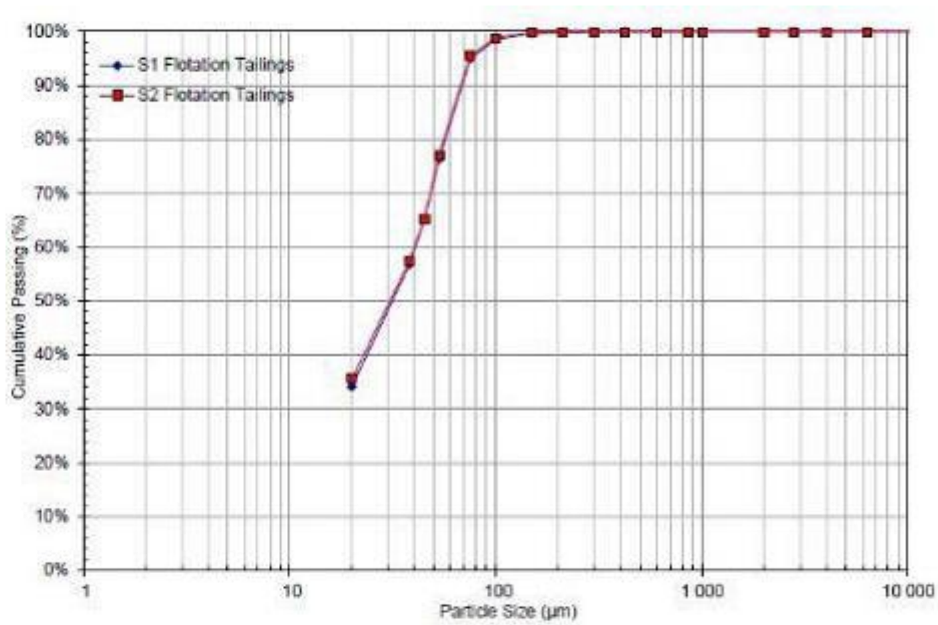


Figure 13-7 Flotation Tailings Wet Sieve Particle Size Distribution

Additional test work was completed on the tailings products including pH, mineralogy and conductivity. The process water was then characterized, and the zero free water material tested for cake resistance, zeta potential and particle settling behavior. Dynamic high-rate thickener tests and dynamic batch thickener bed consolidation tests were conducted for the tails thickening test work. Further rheological testing was conducted on the thickened tails products and carrier fluid to identify the transportable and flow moisture points.

Table 13-3 Thickener Underflow Bed Consolidation Summary

Test	High-Rate Thickener Underflow	Consolidated Underflow
Solids mass concentration	66.7%m	72.6%m
Un-sheared vane yield stress	29 Pa	142 Pa

Table 13-4 Transportable Moisture Limit

Parameter	Flotation Tailings
Flow moisture point	17.8%m
Transportable moisture limit	16.0%m

13.4.6.2 FILTER AND BINDER TESTING

In order to generate a bindable product, filtration tests were run on the thickened tailings material for both a vacuum and pressure filtration circuit. Summary of the results determined that optimum flow moisture point was achievable at all chamber widths tested in both scenarios. For operational implementation, BHMC will use vacuum filtration for the UG paste distribution plant. Further dewatering of thickened tails product, if needed to produce a typical dry stack product, could be achieved with the use of pressure filtration.

To investigate the binder requirements and properties of binder-added, filtered thickened tailings material, a 5% binder (cement) added product was created for testing with a viscometer and a slump cylinder to generate curves for Boger yield stress vs. cemented paste mass concentration.

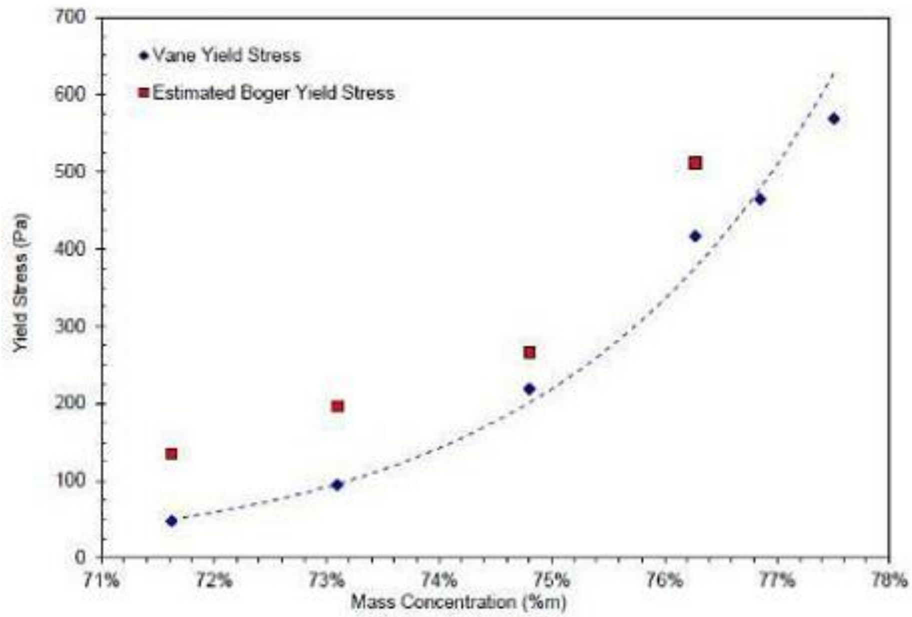


Figure 13-8 Static Vane Yield Stress vs. Solids Mass Concentration

Unconfined compression strength (UCS) testing was required to match against geotechnical recommendations and test the adequacy of the paste product. Binder was added using a ribbon mixer at various concentrations. Binder used was Ashgrove Portland Cement Type I/II. Additional tests were carried out using a 4.8% cement addition to a filtered, thickened tailings product pre-mixed with 0.9% mass component of a high-density sludge (HDS) product collected from the EPA's central water treatment plant (CTP) for future potential inclusion in the paste backfill as a sequestration method. Although current mine plans do not envision Bunker Hill operating its own water treatment plant for mine effluent, and therefore not producing a HDS material requiring sequestration, Bunker Hill has access to HDS material from the CTP if it is found to be beneficial as an additive to stope backfill.

Table 13-5 UCS Test Results (UCS in kPa)

Mix	Tailings Type	Binder (%m)	W:B Ratio	As- Cast Concentration (%m)	UCS			
					7 Day	14 Day	28 Day	90 Day
1 to 4	100% S2 Flotation Tailings	3.6%	9.5	74.5%	286	382	431	557
5 to 8	100% S2 Flotation Tailings	4.8%	7.1	74.5%	340	474	665	845
9 to 12	100% S2 Flotation Tailings	7.0%	4.9	74.5%	517	687	1,104	1,243
13 to 16	100% S2 Flotation Tailings	10.0%	3.1	76.2%	1,035	1,611	1,905	2,161
17 to 20	S2 Flotation Tailings / Sludge Blend	4.8%	7.1	74.5%	360	380	551	597

Geotechnical recommendations from Golder and Associates on UCS strength for the proposed stoping dimensions was 250 kPa. All binder concentrations tested met the recommended strength requirements by the 7-day cure timeline. This allows for future optimization and cost reduction with the use of lower binder concentrations and continued HDS addition. Stope sequencing will allow for cure times of greater than 28 days, further allowing for test work investigating reduction in binder addition concentrations. Results from this test work went into the development of GA and equipment specifications regarding the proposed underground backfill system at the Bunker Hill Mine.

13.4.6.3 BACKFILL PLANT OPERATIONS

At the completion of both long hole stoping and cut and fill stoping there will be a need for a backfill component to allow for the adjacent stopes to be mined. This will be accomplished using an engineered hydraulic (paste) backfill system to pump binder-added, thickened tailings back into the mined-out stope voids. The tailings from the process plant will be sent to a tailings thickener located in the mill/process building. Thickened tailings will be pumped to an adjacent building where a vacuum filter cake will be produced. This filter cake will the back hauled to the Wardner portal site via the same off-road haul trucks bring ore down to the mill. The filter cake will be mixed with the required binder components at Wardner and pumped underground. Surge piles of filter cake at the mill and Wardner site allow for operational flexibility for both the mine and mill.

13.4.6.4 BACKFILL PLANT OPEX

Paste plant operational costs have been estimated on an annual basis for a 1,500 tpd production rate. With the increase to 1,800 tpd production rate, additional OPEX detail is planned with continued detail plant engineering but is not projected to show material changes. Continued test work will focus on optimization of binder additions and flocculant requirements to reduce consumption rates to match geotechnical requirements.

Table 13-6 Paste Backfill Plant Annual OPEX

OPEX Component	Annualized Costs USD$ x (1,000)
Maintenance and Spares	$ 980
Electricity	$ 220
Flocculant	$ 30
Binder	$ 1,690
Total Annual OPEX	**$ 2,920**

13.5 MINE PLANNING AND SCHEDULING

The Wardner backfill plant will produce engineered geotechnical hydraulic fill for the mining operations and a pumpable tailing product to be placed in existing open stopes and select secondary stopes. Mix design and binder content vary depending on use requirements. Delineation drilling in advance of mining will be used to confirm final stope geometries and identify historically non-filled stopes which will be appropriately backfilled prior to new mining advancements.

Contract mining is envisioned with the current contractor, Coeur d 'Alene Mine Contracting (CMC) supplying mine supervision, labor and explosives. Bunker Hill will provide materials, supplies, engineering, geology and overall site management. Mining equipment has either been purchased or will be purchased by Bunker.

Table 13-7 Bunker Hill and Contractor Labor Requirements

Bunker Hill Mining Corporation Prefeasibility Study (PFS) $USD	LOM - Total (Year 1- LOM)	2022	2023	2024	2025	2026	2027	2028
Contractor Supplied								
Shift Supervisors		2	4	4	4	4	4	4
Lead Miner		4	16	16	16	16	16	16
Miner		4	16	12	12	12	12	12
UG Labor		4	12	12	12	12	12	12
Backfill Plant Operators		-	8	8	8	8	8	8
Mechanics		3	16	20	20	20	20	20
Electricians		2	8	8	8	8	8	8
Surface Operators (Non CMC)			12	12	12	12	12	12
	Total	19	92	92	92	92	92	92

Table 13-8 Bunker Hill and Contractor Equipment Requirements

Bunker Hill Mining Corporation Prefeasibility Study (PFS) $USD	LOM - Total (Year 1- LOM)	2022	2023	2024	2025	2026	2027	2028
Drill Jumbo		2	2	2	2	2	2	2
Bench Drill			1	2	2	2	2	2
Explosive Loaders		1	1	2	2	2	2	2
Loaders		2	3	3	3	3	3	3
Trucks		3	3	4	5	6	6	6
Bolters			1	1	1	1	1	1
Utility Equipment		2	4	5	5	6	6	6
	Total UG Units	10	15	19	20	22	22	22
Telehandler		1	1	1	1	1	1	1
Cat 988 Class - rental			1	1	1	1	1	1
Cat 745 Class - rental			2	2	2	2	2	2
	Total Surface Units	1	4	4	4	4	4	4

Production is scheduled to begin in the 4th quarter of 2023 and ramp up to 1,800 tpd over the two quarters following commencement of production. Initial production will be target above the 9-level as the lower levels are developed. The mine plan is developed to allow sequential water draw-down as new production horizons are required. This sequencing is continued to the 15-level which is the lowest level developed in the pre-feasibility plan.

Table 13-9 Production Schedule

Year	September-22 December-23 *Initial Capex*	2024	2025	2026	2027	2028	TOTAL
Ore mined (kt)	77	652	655	655	655	665	**3,360**
Zinc grade (%)	5.90%	5.60%	4.70%	5.70%	5.70%	5.90%	**5.50%**
Lead grade (%)	2.10%	2.40%	2.70%	2.90%	2.40%	1.90%	**2.50%**
Silver grade (t-oz/t)	0.5	0.7	1.3	1.4	1.2	0.8	**1.1**
Zinc concentrate (t)	6,671	53,504	44,852	54,997	55,061	57,909	**272,995**
Lead concentrate (t)	2,091	20,945	23,577	25,078	20,955	16,605	**109,251**
Zn grade - Zn conc (%)	58.00%	58.00%	58.00%	58.00%	58.00%	58.00%	**58.00%**
Pb grade - Pb conc (%)	67.00%	67.00%	67.00%	67.00%	67.00%	67.00%	**67.00%**
Ag grade - Pb conc (t-oz/t)	14.4	18.6	31.5	30.1	31	27.4	**27.6**
Zn prod. - Zn conc (klbs)	7,738	62,065	52,029	63,796	63,871	67,174	**316,674**
Pb prod. - Pb conc (klbs)	2,802	28,067	31,593	33,605	28,080	22,251	**146,397**
Ag prod. - Pb conc (kt-oz)	30	390	742	754	649	455	**3,020**

(1) September 2022 – December 2023 includes initial Capex period

Table 13-10 Capital and Expensed Development Quantities Schedule

Bunker Hill Mining Corporation Prefeasibility Study (PFS) **$USD**	**LOM - Total (Year 1- LOM)**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**
Capital Development								
Total Capital Horizontal Advance, ft	84,692	647	2,708	12,622	16,779	14,516	32,054	5,366
Total Capital Horizontal Waste, tons	986,233	7,165	50,640	143,621	188,288	161,904	371,588	63,027
Total Capital Vertical Advance, ft	3,750				225	900	1,900	725
Total Capital Vertical Waste, tons	17,136				1,028	4,113	9,034	2,961

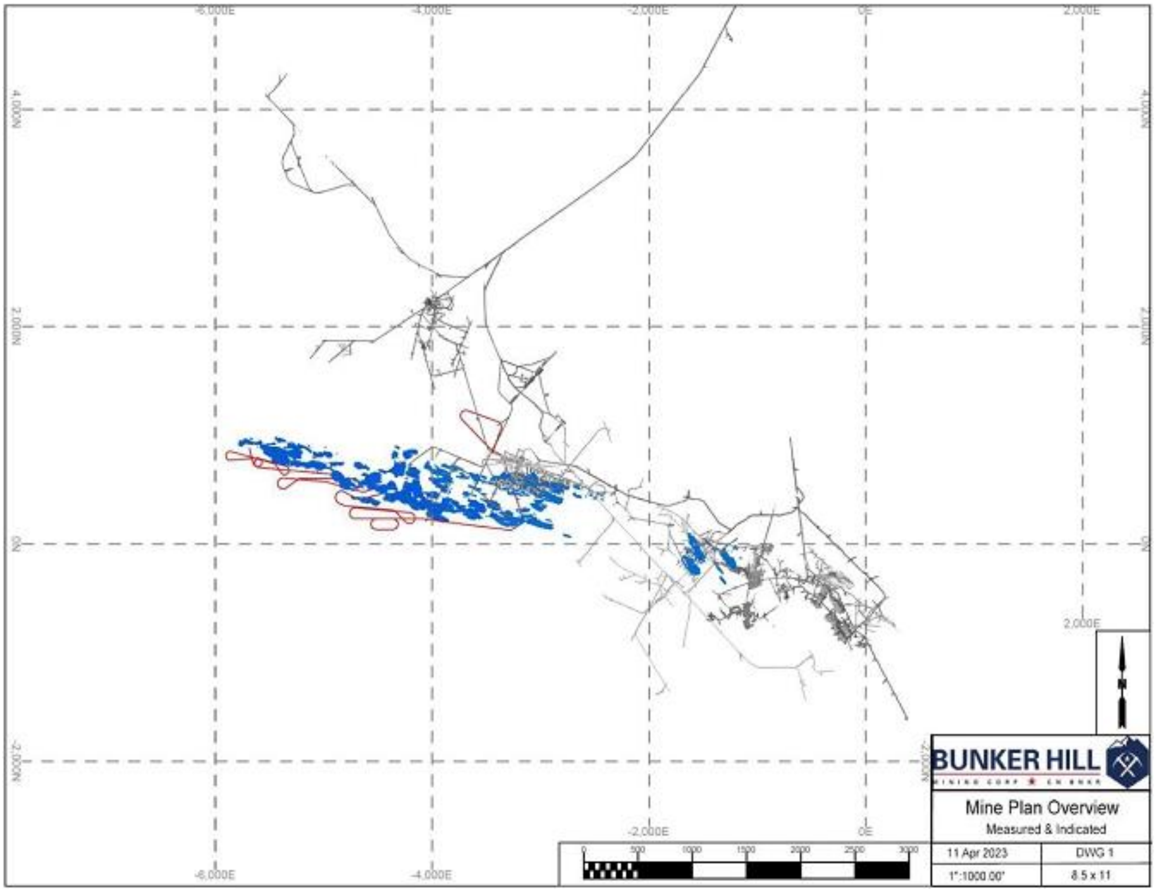


Figure 13-9 Planned Mine Development and Production Stopes (with Currently Accessible Mine Drifts)

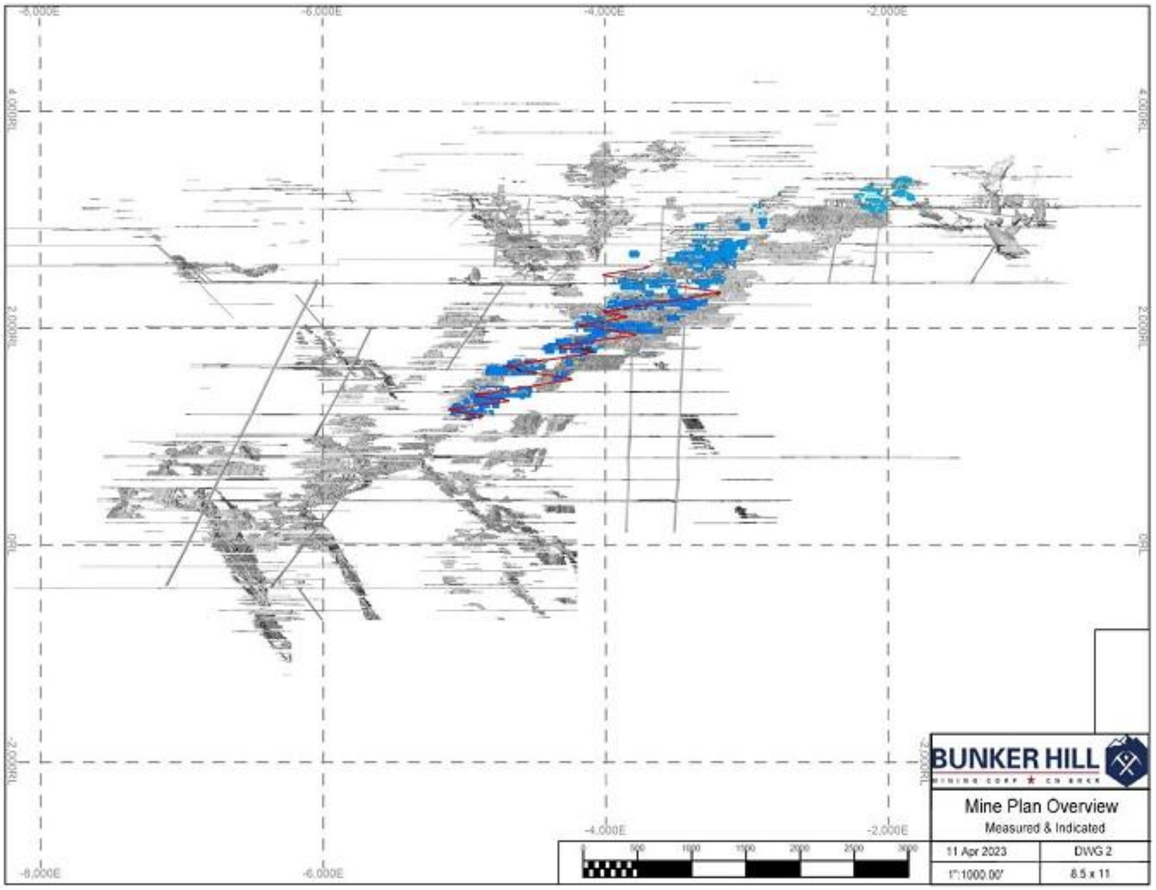


Figure 13-10 Planned Mine Development and Production Stopes (Cross Section) Showing Historically Mined Areas (Grey)

13.6 GROUND SUPPORT

Ground conditions are generally good to excellent at Bunker. Typical access ramp and development headings are designed at a nominal 12 ft H by 12 ft W cross section. This is a minimum so with overbreak slightly greater. CF headings are costed at 10 ft H by 10 ft W. LHOS sill dimensions are 15 ft H and 20 ft W with a bench depth of 35 ft for both primary and secondary stopes.

Table 13-11 Estimated Ground Support

Bunker Hill Mining Corporation		Split Sets		Resin Rebar		Extra Bolt
Prefeasibility Study (PFS) - Bunker Hill Mine	Length Feet	Square Ft per Bolt	Max Feet Above Sill	Length	Square Ft per Bolt	Factor % *All Bolts*
Development and Stope Access	6	16	5	8	64	10.0%
LHOS Sill Development	6	25	5	10	64	10.0%
Cut-and-Fill Stopes	6	16	8			10.0%

An average cost of $15.59 / ft was used for matts and wire in the development headings and LHOS sill cuts. Additional resin rebar bolting is expected in intersections.

13.7 GRADE CONTROL

Bunker Hill will maintain a mine geology program to collect and analyze data from both development and production headings to maintain and provide QA/QC data for mine to model and mine to mill reconciliations. Mine geologists will be responsible for the visitation of active mining areas to collect rock sample and mapping data. For long hole stope areas, the top and bottom cuts will provide direct access to the mineralized material for collection by channel sampling. Detailed drift mapping will add to the already extensive geologic digitization of historic geologic maps. With the current mine design, there is also the opportunity for the use of core drilling to assist in the delineation and sampling of portions of the mineralized body ahead of the driving of the top and bottom stope cuts. Allowance for grade control geologic activities is accounted for in the cost build-up for stoping activities. Due to the nature of the bluebird style mineralization to be encountered in the UTZ, Quill and Newgard sections of the MRE, strict geologic control will not be the main focus of underground geologic methods, but rather to allow for the continued refinement of grade control and resource models, in addition to providing top-line numbers to assist in full-ROM reconciliation programs.

13.8 MINE VENTILATION

The mine ventilation requirements were modeled using VNET (Mine Ventilation Services software now part of SRK Consulting). The extents of the underground workings are immense. Access is limited to several workings in the mine and air flows have been measured flowing into areas which are currently inaccessible. The mine has substantial natural ventilation flows most of the year. It has been naturally ventilated prior to the fan installations this year to support the drive from the 5 to 6-level. A combination of the 1981 ventilation paper maps, digitized level maps, lidar level and raise surveys, input from Bunker Hill safety and survey personnel, in addition to CMC personnel was used to construct the model. Air flow quantity measurements have been routinely recorded during the start-up; however, a differential pressure survey has not been performed. The airway resistance k-factors used are empirically derived from other similar airways aggregated from a number of mines and published by other sources. Once the 5 to 6-level ramp is completed, and the first main mine fan is installed, a field vent survey can be conducted and k-factors adjusted as required. Additional ventilation work is required and will be part of Bunker Hills ongoing engineering duties.

13.8.1 VENTILATION FROM THE 5-LEVEL TO THE 9-LEVEL

The main airways for the mine levels above the 9-level are the 5-level from the Russell portal and Hanna stope area to the top of the Newgard ramp, the Newgard ramp, the Cherry Raise which connects 9-level to the surface above and to the east of the Russell portal above Wardner, the S. Chance raise which connects the 7, 8 and 9-levels and the KT which daylights at the Kellogg portal. Temporary fans as of September 2022 are installed to draw air in from the Cherry raise and out the Russell Portal and Hanna stope area. Booster fans and fan lines support the Newgard ramp drive to the 6-level. The first main mine fan will be installed with an airlock in the Newgard ramp just above where it is planned to intersect the 6-level. This fan will be a Spendrup 84" 400 hp which is in the process of being purchased along with other fans and equipment from Teck's Pend Oreille mine which is being closed. This fan will initially operate at about 180 kcfm and 5" water gage (w.g.) drawing air down from the 5-level Russell Portal/Hanna area ramp and forcing it out the Cherry raise and KT to the Kellogg portal. The fan location in the Newgard ramp just above the 6-level will minimize recirculation on the intake side. Bulkheads and other stopping will be installed as required on the levels to prevent short circuiting of air prematurely up the Cherry raise. Booster fans and vent lines will support the Newgard drive from the 8-level to the 9-level. Air will flow down the S. Chance raise and current manway to the 9-level providing a fresh air base at the top of the 8 to 9-level Newgard ramp as it is being driven. Figure 13-11 show the VNET isometric view of the upper levels vent plan looking to the northwest.

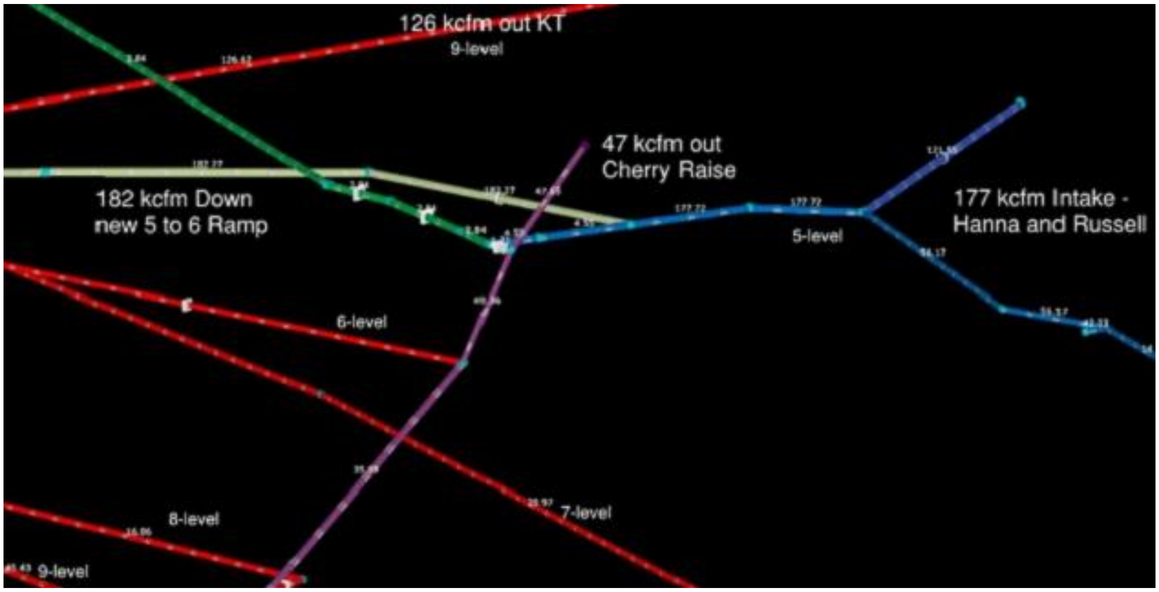


Figure 13-11 Isometric View of Upper-Level Vent Plan (Looking Northwest)

13.8.2 VENTILATION FROM THE 9-LEVEL TO THE 15-LEVEL

The Newgard ramp will continue to be driven from the 9-level down to the 15-level to serve as primary access to these levels. A new raise is required to move air from the 8-level to the top of this new ramp (8.5 to 9.5 Newgard raise). An airlock at the top of the 9 to 10-level ramp will allow the fan placed at the bottom of this new raise to force air down the ramp. A portion of the 9-level from the base of the Cherry raise will be upgraded and another new ramp and fan drift will be driven to intersect the 9 to 10-level Newgard ramp. These two fans will support mining at the lower levels with air down the Newgard and return air coming across the existing levels, up the existing #1, #2 and #3 shafts; and the new level raises and manways which will interconnect the 50 ft stope levels between the main mine levels (~200 ft). An additional exhaust airway will be established on the 8-level above the #1 and #2 shaft area to exhaust out through a combination of upgraded levels and new development raises and ramps to Wardner. Once the 9 to 10-level ramp is driven and flowthrough is obtained, the Cherry raise fan can be started which will now draw air down the Cherry raise. Intake airways will be the Cherry raise and the Newgard ramp via the new 8 to 10-level ramp raise. Exhaust will continue out the KT and out the new exhaust established from 8-level to Wardner. Two additional fans will be required at the bottom of the S. Chance raise and 9-level access to the #3 shaft. Both of these fans are small and considered fan splits in lieu of bulkheads to prevent dead air and possible recirculation.

Table 13-12 Estimated Mine Fan Requirements

Prefeasibilty Mine Fan List	Pressure " w.g.	Quantity kCFM	Air Hp (Calc)	Assumed Fan Efficiency	Mechanical Output Hp	Nominal Nameplate Hp
Main Fans						
5 to 6 level in Newgard	6	254	240	70.0%	343	**400**
Bottom of Cherry 9 Level	6	185	175	70.0%	250	**300**
#1 Shaft to Wardner Surface	6	318	300	70.0%	429	**500**
Raise 8.5 to 9.5 Newgard	5	166	130	70.0%	186	**250**
Fan Splits						
Bottom of S. Chance 9 level	6	62	60	70.0%	86	**100**
9 Level from #3 Shaft	6	56	60	70.0%	86	**100**
Total			**965**		**1379**	**1650**

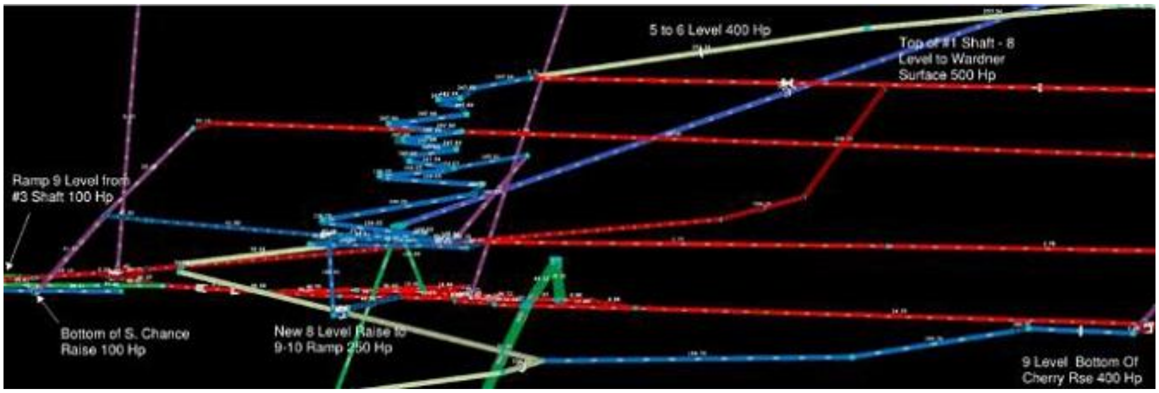


Table 13-13 Isometric View of VNET Ventilation Model 5-level to 10-level (Looking Northwest)

The ventilation plan assumes there will be communication with the old workings and the shafts once they are dewatered. This is likely, considering the condition of the rest of the mine.

13.9 OTHER MINE RELEVANT CONDITIONS

The mine is currently flooded to just above the 11-level. Pumps are located in the #2 shaft compartment to maintain this level. Level collection will be established, and pumping will continue and underground wells or upper-level clean water inflow sumps will be installed to provide a source of mine process and drill water. Mine and process water will also be available via multiple historic drill holes that have intercepted fresh water and have been grouted and headered into supply lines. The development cost estimate includes installation of mine water, discharge water, communications, electric and air lines to and from the working headings.

14 RECOVERY METHODS

The conceptual process flowsheet and the process design criteria were developed based on the completed locked-cycle test work done by Resource Development Inc. (RDi) and the historical plant description.

14.1 PROCESS PLANT AND DESIGN - INTRODUCTION

Bunker Hill plans to re-construct a crush-grind-flotation-concentration mill from the nearby Pend Oreille (PO) mine in northern Washington on the Bunker Hill Kellogg Mine Yard. There currently is a large building that housed the historic machine shop at the Bunker Hill mine that will first need to be dismantled and removed for access to the existing slab. The future structures to house the grind-flotation-concentration circuit, as well as the secondary crushing circuit and concentrate storage facilities will need to be constructed.

The process consists of a primary and secondary ore crushing circuit, then a primary grinding circuit followed by two separate flotation circuits to recover lead, zinc, silver and gold into two separate concentrate products; a lead, silver, gold concentrate and a zinc concentrate. Approximately 648,000, short tons of ore will be processed a year at a rate of 1,800 stpd, or 79 stph at 95% availability. From the metallurgical tests outlined in this report, a process flow diagram was constructed as shown in Figure 14-1.

The flotation tailings are thickened and backfilling underground under the current startup plan. Later, tailings will be sent to a paste backfill processing facility underground and the remaining thickened tailings to the dry-stack tailings facility for storage. Overflow streams from the tailings thickeners reports to the main process water collection tank, where it is treated and recycled for re-use in the plant according to process needs.

An operational and metallurgical review of process plant operations in recent months and metallurgical test programs have resulted in the identification of substantial improvements to the current process flowsheet and equipment to increase operating availability and product quality while maximizing production.

Process improvements currently planned for the Bunker Hill plant are based on operating experience by mill staff, technical reviews by consultants, and on metallurgical test results provided in and the interpretations derived from the recent test programs. The findings of these metallurgical test programs are summarized in previous sections of this report.

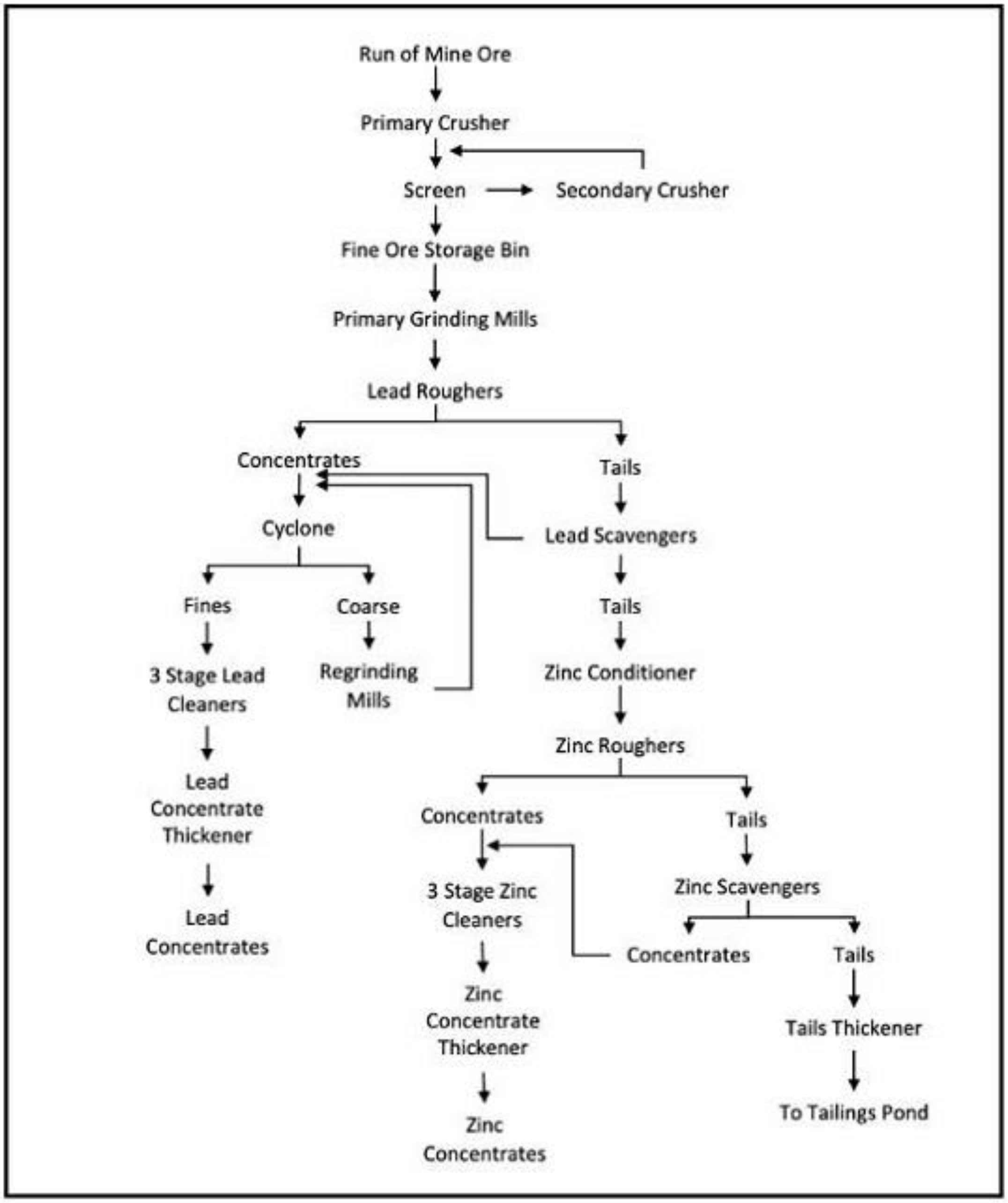


Figure 14-1 Bunker Hill Process Flowsheet

14.2 PROCESS PLANT DESIGN CRITERIA PROCESS PLANT DESIGN CRITERIA

The plant is designed to process 1,800 short tons per day (stpd) with an overall availability of 95%. The design criteria are given in Table 14-1.

Table 14-1 Design Criteria

No.	Parameter	Unit	Value	Source
GENERAL				
1.	Plant tonnage	stpd	1800	Client
2.	Plant availability	%	95	Pro Solv
3.	ROM moisture	%	3	Pro Solv
4.	Design plant throughput	Stpd/stph	1900/79	Calculated
5.	Specific gravity	g/cc	2.8	Calculated
6.	Bulk density	Lb/cu. Feet	125	Measured
CRUSHING				
7.	Operating hours	hr./day	16	Assumed
8.	Crusher availability	%	75	Assumed
9.	Crusher feed	stph	125	Calculated
10.	ROM feed, F_{80}	Ins	8	Assumed
11.	Primary crusher product, P_{80}	Ins	2.5	
12.	Secondary crusher, P_{80}	Ins	0.5	
13.	Screen opening	Ins	¾	Assumed
14.	Screen undersize, P_{80}	Ins	½	
15.	Fine storage bin capacity	hrs. tons	12 815	Assumed calculated
MILLING				
16.	Ball Mill Work Index		13.7-15.6	RDi/SGS
17.	Design BW_i		15.6	Pro Solv
18.	Mill Feed, F_{80}	Microns tph	12,500 68	Crusher product calculated
19.	Mill Product, P_{80} (cyclone overflow)	microns	75-104	RDi
FLOTATION				
20.	Lead Rougher Flotation	min	8	RDi
21.	Zn Rougher Flotation	min	20	Calculated
22.	Pb Cleaner 1 Flotation	min	12	Assumed
23.	Pb Cleaner 2 Flotation	min	8	Assumed
24.	Pb Cleaner 3 Flotation	min	5	Assumed
25.	Zn Cleaner Flotation	Same as lead cleaners	Assumed	
26.	Pb Concentrate Thickener	Ft^2/t/day	1	Assumed
27.	Pb Concentrate Filter	lb./ft^2/hr.	300	Assumed
28.	Zn Concentrate Thickeners	Ft^2/t/day	1	Assumed
29.	Zn Concentrate Filter	lb./ft^2/hr.	300	Assumed
30.	Tail Thickeners	Diameter, ft	30	Assumed
31.	Regrinding mill	HP	500	Calculated

14.3 PLANT DESIGN

The simplified process flowsheet of the Bunker Hill plant was the basis of the process plant engineering study.

14.4 PROCESS PLANT DESCRIPTION

The process was modeled in METSIM, a specialized metallurgical process simulator to optimize feed sizes and consumptions to assemble a complete plant throughput model. ROM material to be processed will be delivered to the surface storage stockpile by overland haulage from the 5-level of the mine along a re-habilitated haulage route. Material will be brought out of the mine after passing through an initial grizzly screen to a minus 8” size. From the surface stockpile, material will be loaded into the hopper to be processed through the primary jaw crusher. Jaw crusher discharge is set to a top size of approximately 2”. From the jaw crusher discharge, material will travel by conveyor to the secondary crushing circuit.

A set of 2 Metso 7-60 Hydro-Cone cone crushers will be housed in the secondary crushing building. Both crushers will be utilized during the crushing campaigns so crushing activities can be limited to one shift per day. Should it be required, one crusher can remain in use for secondary crushing while the second maintenance is conducted on the other crusher. Screens for the oversize separation step are 4’x10’ and a return conveyor is planned for delivery back to the cone crusher for oversized material. From the secondary crushing circuit, material travels to the fine ore bin. Crushed material has a P_{80} between 0.265” and 0.375”. The fine ore bin is to be located on the north end of the future process facility structure.

Table 14-2 Crusher Configuration

Parameter	Units	Typical
No. of Units		2
Close Side Setting	in	0.3
Throw	in	0.52
Open Side Setting	in	0.82
Bond Work Index	kW h/short ton	13.47
Horse Power	Hp	100
Power Draw Electrical	kW	66.4
Powder Draw Mechanical	kW	57.6

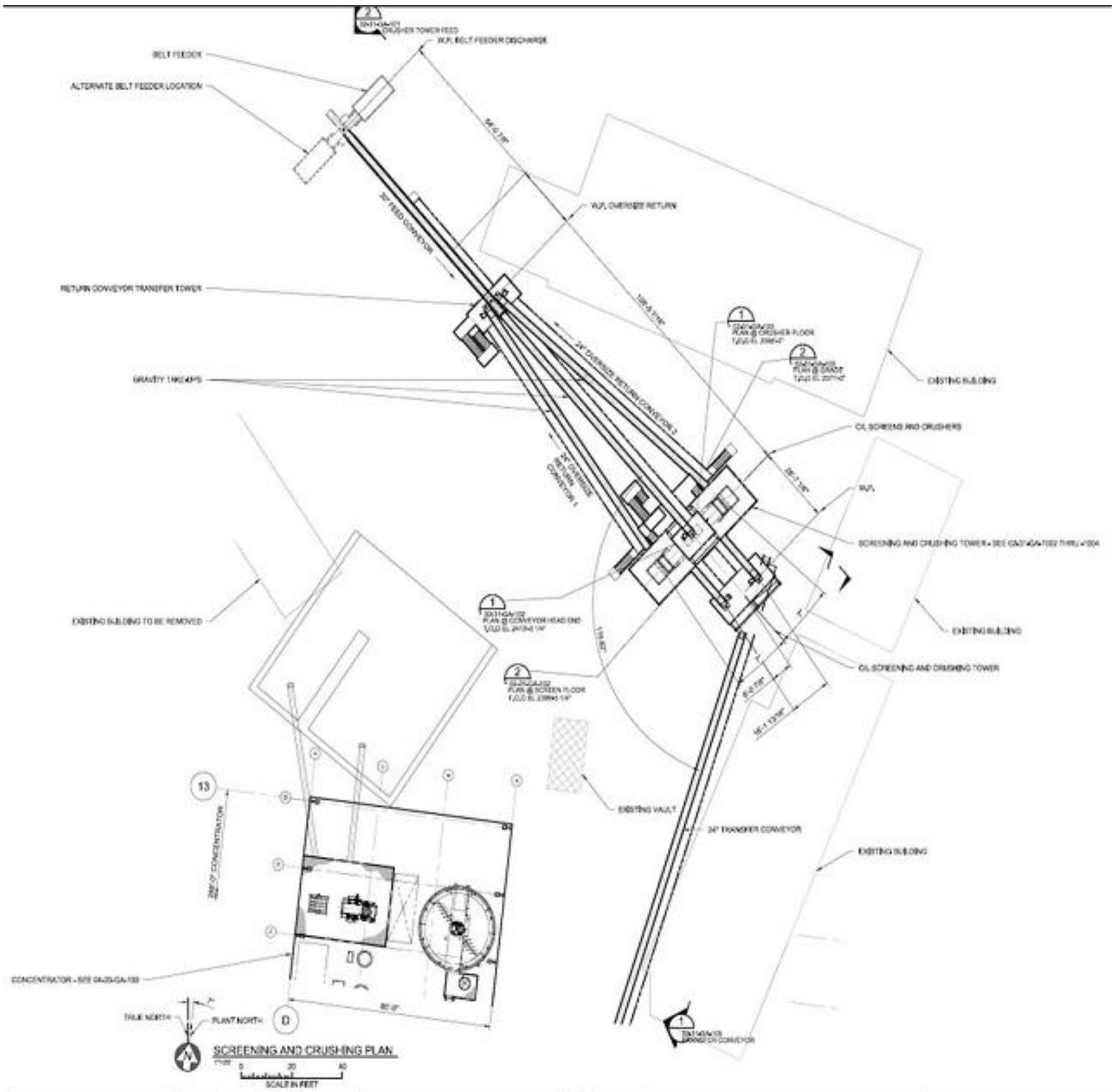


Figure 14-2 General View of Crusher Area

Material from the fine ore bin is conveyed to a closed loop ball mill circuit for primary grinding. Primary grinding will reduce the material to a P_{80} of 74 microns. Classification will take place via a multi hydrocyclone cluster that receives the ground material for classification with the oversize material in the cyclone underflow returning to the ball mill for further grinding. Classified material in the cyclone overflow will be sent to the lead rougher/scavenger stage of flotation.

The initial flotation stage consists of a bank of lead rougher/scavenger cells. From this stage the rougher concentrate overflow component will be sent to a re-grind milling circuit, while the rougher tailings will be sent to the zinc flotation circuit. Lead rougher concentrate is sent to a regrind ball mill with a discharge of P_{80} 325 mesh. An additional hydrocyclone cluster will classify the re-ground material with the oversize being sent back to the ball mill. Classified material is then transported to the first stage of lead cleaner flotation cells.

Underflow tailings from the first lead cleaner stage will report to the zinc flotation circuit, overflow concentrate will report to a second stage of cleaner cells. Second cleaner concentrate will be transported to a third stage of cleaner cells, of which the final lead concentrate product will be made from the concentrate overflow of the third cleaner step. The second lead cleaner tail will be sent back to the regrind circuit and back through the cleaner circuit. Tailings underflow from the third cleaner will be sent back through the feed of the second cleaner circuit, of which all eventual underflow material will be transported to the zinc circuit.

Table 14-3 Lead Flotation Circuit Configuration

Lead Flotation Circuit	Parameter	Units	Typical
Lead Rougher/Scavenger Cells	No. of Units		5
	Cell Size	cu. Feet	300
	Cell Fill Factor		85%
	Residence Time	min	7.85
	RDI Res. Time	min	6
Lead Cleaner Cells			
Cleaner 1	No. of Units		5
	Cell Size	cu. Feet	50
	Cell Fill Factor		85%
	Residence Time	min	5.10
	RDI Res. Time	min	4
Cleaner 2	No. of Units		2
	Cell Size	cu. Feet	50
	Cell Fill Factor		85%
	Residence Time	min	4.07
	RDI Res. Time	min	2.5
Cleaner 3	No. of Units		1
	Cell Size	cu. Feet	50
	Cell Fill Factor		85%
	Residence Time	min	2.27
	RDI Res. Time	min	1.5

The zinc circuit, receiving the tailings underflow from the initial lead rougher/scavenger and the first lead cleaner begins with a zinc rougher/scavenger cell bank. Tailings underflow is sent to final tailings discharge with concentrate overflow progressing through a 3-stage series of re-circulated cleaner cell banks. Sequential underflows are sent back to eventually generate a tails product from the first stage of cleaning. Final overflow material from the third cleaner stage will report to the final zinc concentrate product.

Table 14-4 Zinc Flotation Circuit Configuration

Zinc Flotation Circuit	Parameter	Units	Typical
Zinc Rougher/Scavenger Cells	No. of Units		8
	Cell Size	cu. Feet	300
	Cell Fill Factor		85%
	Residence Time	min	11.98
	RDI Res. Time	min	6
Zinc Cleaner Cells			
Cleaner 1	No. of Units		10
	Cell Size	cu. Feet	100
	Cell Fill Factor		85%
	Residence Time	min	34.98
	RDI Res. Time	min	6
Cleaner 2	No. of Units		4
	Cell Size	cu. Feet	100
	Cell Fill Factor		85%
	Residence Time	min	16.15
	RDI Res. Time	min	2.5
Cleaner 3	No. of Units		2
	Cell Size	cu. Feet	100
	Cell Fill Factor		85%
	Residence Time	min	8.36
	RDI Res. Time	min	1.5

Final tailings are sent to a tailings thickener. The tailings are thickened to a minimum 68% solids for transport to the backfill plant. The concentrates are sent to individual product thickeners. From the lead thickener, the lead concentrate is sent to a vacuum disc filtration unit, with the lead concentrate cake conveyed to the storage building for truck loadout and shipping. Meanwhile, the thickener underflow from the zinc circuit is sent to a vertical pressure filtration unit. The final zinc concentrate product is conveyed to the storage and shipping area. A filter cake material of 10-15% moisture will be generated for each product.

14.5 PROJECTED PLANT RECOVERIES AND GRADES

From the metallurgical work outlined in this report, lead concentrates are assumed to assay at 67% lead, with net recoveries of 88.2% lead and 84.2% silver as the payable metals. The zinc concentrate assays 58% zinc, with a net recovery of 85.1% zinc.

14.6 CAPITAL COSTS FOR MILLING OPERATIONS

BARR Engineering compiled capital costs to complete design and installation of a functioning mill and concentrator facility at the Bunker Hill Site. The capital cost tables reflect installation costs for the used Pend Oreille equipment and refurbishment as well as new equipment and installation to complete the facility. Summary of capital costs are shown below.

Table 14-5 Capital Cost Estimation

Capital Cost Summary			
NEW MECHANICAL EQUIPMENT TOTAL	**% MEC**		
	100.0%	$	5,324,000
Equipment Erection	60.0%	$	3,190,000
Piping, Platework, and Ductwork	20.0%	$	1,060,000
Electrical	15.0%	$	800,000
Instrumentation and Control	20.0%	$	1,060,000
Lagging and Paint	5.0%	$	270,000
PO MECHANICAL EQUIPMENT			
	100.0%	$	520,000
Equipment Erection	10.0%	$	3,120,000
Piping, Platework, and Ductwork	60.0%	$	1,040,000
Electrical	20.0%	$	1,560,000
Instrumentation and Control	30.0%	$	520,000
Lagging and Paint	10.0%	$	520,000
Civil and Structural Takeoff			
Mill building		$	4,050,000
Fine Ore Bin and Exterior Work		$	2,040,000
Secondary Crusher Structural		$	1,210,000
Concentrate Load Storage Building		$	695,833
Direct Costs		**$**	**26,460,000**
Sale of surplus mills and mill equipment		$	(250,000)
Construction phase services	Captured Elsewhere		
Contractor's Fee/Markup on mechanical	Captured Elsewhere		
Total Indirect Costs		*$*	*(250,000)*
Sub-Total Costs		**$**	**26,200,000**
Process Definition Contingency	15%	$	3,930,000
Total Costs		**$**	**30,100,000**

Installation of the used Pend Oreille (PO) equipment was estimated based on current construction and installation factors BARR had for recent projects from capital equipment costs of the PO equipment if purchased new. The table below represents an estimate of PO equipment if purchased new. Costs are not included in the final totals but are used for calculating factored quantities for the installation only.

Table 14-6 Pend Oreille (PO) Equipment List

DESCRIPTION	COST USD	QTY	EXT
Ball Mill		0	Not Used
Regrind Cyclopac	$ 33,300	1	$ 33,300
Regrind Mill	$ 444,000	1	$ 444,000
Flotation plant	$ 2,220,000	1	$ 2,220,000
Lead Disc Filter	$ 170,940	1	$ 170,940
#1 Vacuum Pump	$ 111,000	1	$ 111,000
#2 Vacuum Pump	$ 111,000	1	$ 111,000
Concentrate Truck Scale	$ 44,400	1	$ 44,400
Load-Out Area Baghouse	$ 149,850	1	$ 149,850
Lime Silo	$ 188,700	1	$ 188,700
Reagent Area Scrubber	$ 15,540	1	$ 15,540
Secondary Crusher - Hydrocone	$ 368,520	2	$ 737,040
Secondary Screen	$ 55,000	2	$ 110,000
Tertiary Crushing O/H Crane	$ 71,040	1	$ 71,040
Vibrating Grizzly Feeder	$ 93,240	1	$ 93,240
Primary Jaw Crusher	$ 346,320	1	$ 346,320
Zinc Horizontal Plate Press Filter	$ 222,000	1	$ 222,000
Fine Ore Discharge Feeder	$ 22,000	6	$ 132,000
Ball Mill Feed Conveyor	$ 115,000	0	$ -
TOTAL MAJOR EQUIPMENT			$ 5,200,370

New equipment summary required to complete the plant was completed by BARR and is illustrated in the table below. This equipment represents items that were either nonexistent at PO or were not recoverable/convertible to the needs at the Bunker Hill site. Bunker Hill does not intend to utilize the 3, 8' x 10' mill from PO due to capacity constraints with these mills. Instead, this project considers 2 larger approximately 10' x 14' mills at 1000 HP each. Alternatively, a single 2000 HP mill 13'D x 20'L will work as well in this application. The procurement and installation of the used mill is captured in the new equipment cost table below.

Table 14-7 New Equipment List

DESCRIPTION	UNIT COST	UNITS	QTY	EXT
Demo entire superstructure	$ 275,000	LS	1	$ 275,000
Foundation remediation	$ 750,000	LS	1	$ 750,000
Ball mill foundations (at 4' thick, 422 sqft plan view area), 2 thus	$ 400	CYD	188	$ 75,200
Regrind mill foundation (at 4' thick, 564 sqft plan area)	$ 600	CYD	84	$ 50,100
Concrete containment curbs, 8"x8", drill dowels into existing slab	$ 30	LF	600	$ 18,000
Pump pads - average size 2'x4'x2' tall	$ 1,500	CYD	7	$ 10,500
Tank Pads - poured on existing slab, assume 7' octagon x 12" high, 7 thus	$ 1,200	CYD	10	$ 12,000
Thickener leg footings - assume 6'x6'x2', 20 thus	$ 750	CYD	53	$ 40,000
Floor sumps - 3 required, assumed cost, construction not determined	$ 8,000	EA	3	$ 24,000
Personnel space (meeting, control, lab, etc) including floor finish	$ 70	SQFT	1620	$ 113,400
CMU room for cyanide tanks and pumps - 10x12 with timber roof	$ 50	SQFT	120	$ 6,000
CMU room for MCC - 10x12 with timber roof	$ 50	SQFT	900	$ 45,000
New overhead doors - assum 12x12 panel doors, electric openers	$ 12,000	EA	3	$ 36,000
New man doors - assume 3x7 with nromal hardware	$ 3,000	EA	5	$ 15,000
Alternate Pre-engineered superstructure for entire footprint	$ 32	SQFT	23040	$ 728,580
PEMB Erection cost	$ 20	SQFT	23040	$ 460,800
Alternate - footing 6' wide x 3' deep 288' long	$ 600	CYD	192	$ 115,200
Alternate - footing 4' wide x 1.5' deep 288' long	$ 600	CYD	64	$ 38,400
Alternate - 8"x24" knee wall, 288' + 2* 80' long	$ 1,500	CYD	22	$ 33,000
Alternate - Floor slab in buiding footprint	$ 600	CYD	467	$ 280,089
Mezzanine at mill feed - post foundations assume 6x6x1.5'	$ 750	CYD	4	$ 3,000
Mezzanine at mill feed - primary structural steel	$ 9,000	TON	14	$ 126,000
Mezzanine at mill feed - grated platform including minor members	$ 35	SQFT	1920	$ 67,200
Mezzanine at mill feed - railings	$ 30	LF	128	$ 3,840
Mezzanine at mill feed - stairs	$ 200	TREAD	50	$ 10,000
Mezzanine at filters - post foundations assume 6x6x1.5'	$ 750	CYD	4	$ 3,000
Mezzanine at filters - primary structural steel	$ 9,000	TON	8	$ 68,040
Mezzanine at filters - grated platform including minor members	$ 35	SQFT	1008	$ 35,280
Mezzanine at filters - railings	$ 30	LF	132	$ 3,960
Mezzanine at filters - stairs	$ 200	TREAD	46	$ 9,200
Mezzanine at flotation (lower level) - primary structural steel	$ 9,000	TON	33	$ 297,000
Mezzanine at flotation (upper level) - post foundations assume 6x6x1.5'	$ 750	CYD	4	$ 3,000
Mezzanine at flotation (upper level at tanks) - primary structural steel	$ 9,000	TON	7	$ 66,960
Mezzanine at flotation (upper level at tanks) - grated platform	$ 35	SQFT	4952	$ 173,320
Mezzanine at flotation (upper level) - railings	$ 30	LF	416	$ 12,480
Mezzanine at flotation (upper level) - stairs	$ 200	TREAD	50	$ 10,000
Mezzanine at regrind and thickeners - post foundations assume 6x6x1.5'	$ 750	CYD	7	$ 5,333
Mezzanine at regrind and thickeners - grated platform including minor members	$ 35	SQFT	422	$ 14,770
Mezzanine at regrind and thickeners - railings	$ 30	LF	106	$ 3,180
Mezzanine at regrind and thickeners - stairs	$ 200	TREAD	50	$ 10,000
Grand Total				**$ 4,051,832**

This project will require construction of a new process mill building to accommodate this equipment. The existing structure is not code compliant, lacks adequate support structure, is insufficient height, and requires some foundational upgrades with the existing footprint. The existing structure will be removed and replaced with a new pre-engineered building with a common use bridge crane that will span the entire structure north-south. The building cost outline is detailed in the table below.

Table 14-8 Cost Estimation of Buildings

DESCRIPTION	UNIT COST	UNITS	QTY	EXT
Demo entire superstructure	$ 275,000	LS	1	$ 275,000
Foundation remediation	$ 750,000	LS	1	$ 750,000
Ball mill foundations (at 4' thick, 422 sqft plan view area), 2 thus	$ 400	CYD	188	$ 75,200
Regrind mill foundation (at 4' thick, 564 sqft plan area)	$ 600	CYD	84	$ 50,100
Concrete containment curbs, 8"x8", drill dowels into existing slab	$ 30	LF	600	$ 18,000
Pump pads - average size 2'x4'x2' tall	$ 1,500	CYD	7	$ 10,500
Tank Pads - poured on existing slab, assume 7' octagon x 12" high, 7 thus	$ 1,200	CYD	10	$ 12,000
Thickener leg footings - assume 6'x6'x2', 20 thus	$ 750	CYD	53	$ 40,000
Floor sumps - 3 required, assumed cost, construction not determined	$ 8,000	EA	3	$ 24,000
Personnel space (meeting, control, lab, etc) including floor finish	$ 70	SQFT	1620	$ 113,400
CMU room for cyanide tanks and pumps - 10x12 with timber roof	$ 50	SQFT	120	$ 6,000
CMU room for MCC - 10x12 with timber roof	$ 50	SQFT	900	$ 45,000
New overhead doors - assum 12x12 panel doors, electric openers	$ 12,000	EA	3	$ 36,000
New man doors - assume 3x7 with nromal hardware	$ 3,000	EA	5	$ 15,000
Alternate Pre-engineered superstructure for entire footprint	$ 32	SQFT	23040	$ 728,580
PEMB Erection cost	$ 20	SQFT	23040	$ 460,800
Alternate - footing 6' wide x 3' deep 288' long	$ 600	CYD	192	$ 115,200
Alternate - footing 4' wide x 1.5' deep 288' long	$ 600	CYD	64	$ 38,400
Alternate - 8"x24" knee wall, 288' + 2* 80' long	$ 1,500	CYD	22	$ 33,000
Alternate - Floor slab in buiding footprint	$ 600	CYD	467	$ 280,089
Mezzanine at mill feed - post foundations assume 6x6x1.5'	$ 750	CYD	4	$ 3,000
Mezzanine at mill feed - primary structural steel	$ 9,000	TON	14	$ 126,000
Mezzanine at mill feed - grated platform including minor members	$ 35	SQFT	1920	$ 67,200
Mezzanine at mill feed - railings	$ 30	LF	128	$ 3,840
Mezzanine at mill feed - stairs	$ 200	TREAD	50	$ 10,000
Mezzanine at filters - post foundations assume 6x6x1.5'	$ 750	CYD	4	$ 3,000
Mezzanine at filters - primary structural steel	$ 9,000	TON	8	$ 68,040
Mezzanine at filters - grated platform including minor members	$ 35	SQFT	1008	$ 35,280
Mezzanine at filters - railings	$ 30	LF	132	$ 3,960
Mezzanine at filters - stairs	$ 200	TREAD	46	$ 9,200
Mezzanine at flotation (lower level) - primary structural steel	$ 9,000	TON	33	$ 297,000
Mezzanine at flotation (upper level) - post foundations assume 6x6x1.5'	$ 750	CYD	4	$ 3,000
Mezzanine at flotation (upper level at tanks) - primary structural steel	$ 9,000	TON	7	$ 66,960
Mezzanine at flotation (upper level at tanks) - grated platform	$ 35	SQFT	4952	$ 173,320
Mezzanine at flotation (upper level) - railings	$ 30	LF	416	$ 12,480
Mezzanine at flotation (upper level) - stairs	$ 200	TREAD	50	$ 10,000
Mezzanine at regrind and thickeners - post foundations assume 6x6x1.5'	$ 750	CYD	7	$ 5,333
Mezzanine at regrind and thickeners - grated platform including minor members	$ 35	SQFT	422	$ 14,770
Mezzanine at regrind and thickeners - railings	$ 30	LF	106	$ 3,180
Mezzanine at regrind and thickeners - stairs	$ 200	TREAD	50	$ 10,000
Grand Total				**$ 4,051,832**

Not included in the mill building estimate is the cost for a fine ore bin storage facility to feed the mill. The intent is to have approximately 24 hours surge capacity ahead of the mill to help accommodate crusher maintenance and offset ore feed interruptions from the mine. A summary of associated costs to construct are in the table below.

Table 14-9 Cost Estimation of Ore Bin and Exterior Works

DESCRIPTION	UNIT COST	UNITS	QTY	EXT
Site prep exterior work limits-area based on approx sketch	$ 5	SQFT	15000	$ 75,000
Foundation for transfer tower at portal	$ 750	CYD	4	$ 2,667
Foundation for transfer tower for cross-conveyor at fine ore bin	$ 750	CYD	22	$ 16,667
Transfer tower for cross-conveyor at fine ore bin	$ 9,000	TON	9	$ 78,300
Stair at tower	$ 200	TREAD	88	$ 17,600
limestone silo foundation	$ 750	CYD	17	$ 12,500
Fine Ore Bin - foundation	$ 750	CYD	311	$ 233,333
Fine Ore Bin - elevated floor	$ 1,500	CYD	256	$ 384,000
Fine Ore Bin - long sidewalls	$ 1,200	CYD	284	$ 341,333
Fine Ore Bin - short sidewalls	$ 1,200	CYD	256	$ 307,200
Fine Ore Bin - sidewalls below elevated floor	$ 1,200	TON	75	$ 89,600
Fine Ore Bin - conveyor support steel and walkway	$ 35	SF	2304	$ 80,640
Fine Ore Bin - PEMB superstructure	$ 44	SF	2304	$ 101,376
Geotech remediation	$300,000	LT	1	$ 300,000
Grand Total				**$ 2,040,216**

For the first few years of operation, the ROM ore will be transported to a portable surface jaw crusher at the portal in Wardner. Dedicated haul trucks will transport the crushed ROM ore via haul road to the Bunker Hill site. A loader will blend the stockpiled material to a reclaim feeder that feeds the secondary crushing and screening tower. Fine ore product from this system will be fed to the fine ore storage bin as outlined previously. The capital cost for the associated reclaim feeder and crushing/screening tower are in the table below. Please note the portable primary crusher will be a leased unit.

Table 14-10 Cost Estimation of Crusher Area

DESCRIPTION	UNIT COST	UNITS	QTY	EXT
Secondary crusher tower - steel framing	$ 9,000	TON	36	$ 321,369
Secondary crusher tower - grating area	$ 20	SQFT	2250	$ 45,000
Secondary crusher tower - railing	$ 30	LF	396	$ 11,880
Secondary crusher tower - stair treads	$ 200	TREAD	202	$ 40,400
Secondary crusher tower - rock anchors	$ 2,500	EA	18	$ 45,000
Secondary crusher tower - base slab	$ 2,000	CYD	89	$ 177,778
Conveyor transfer tower - steel framing	$ 9,000	TON	10	$ 92,887
Conveyor transfer tower - grating area	$ 20	SQFT	288	$ 5,760
Conveyor transfer tower - railing	$ 30	LF	96	$ 2,880
Conveyor transfer tower - stair treads	$ 200	TREAD	128	$ 25,600
Conveyor transfer tower - rock anchors	$ 2,500	EA	16	$ 40,000
Conveyor transfer tower - base slab	$ 2,000	CYD	33	$ 66,667
Hopper/Feeder slab	$ 600	CYD	21	$ 12,444
Allowance for roofing	$ 40	SQFT	1125	$ 45,000
Allowance for siding	$ 40	SQFT	7000	$ 280,000
Grand Total				$ 1,212,665

The concentrate storage and loadout area will initially be located near the mill building and adjacent to the dewatering unit processes. Future plans are to relocate concentrate storage and loadout to an area below the Bunker Hill site and adjacent to McKinley Avenue to simplify concentrate truck loadout and improve safety. Consequently, the initial concentrate storage area will consist of a minimalist approach with a simple slab with collection sump, ecology block stem walls all covered by a steal framework fabric cover structure. The truck scales from PO will be incorporated into the load out in a location that doesn't inhibit loader movement to the reclaim feeder. Associated capital costs are shown in the table below.

Table 14-11 Cost Estimation of Concentrates Storage Area

DESCRIPTION	UNIT COST	UNITS	QTY	EXT
FOUNDATIONS / CONCRETE WORK				
Column / Strip footings	$ 850	LFT		$ -
12" Thick floor slab	$ 900	YARDS	181.48	$ 163,333
Truck scale footings/piers/walls	$ 1,000	YARDS	35.00	$ 35,000
8" Slab u8nder truck scale	$ 900	YARDS	45.00	$ 40,500
8' High precase bunker walls	$ 700	LFT	210.00	$ 147,000
P.E.BUILDING				
Pre-Engineered building 104' X 96' X 28'	$ 20.00	SQ.FT.	10000.00	$ 200,000
P.E. BUILDING ACCESSORIES				
Loader wheel washer with piping	$ 10,000	EACH	1	$ 10,000
Rehab Truck Wash	$ 100,000	EACH	1	$ 100,000
Grand Total				$ 695,833

14.7 OPERATING COSTS FOR MILLING OPERATIONS

Summary of process operating costs are shown in Table 14-12 below. The costs are broken down by major cost center and are based on annual concentrator nominal throughput rate of 1,800 stpd. Annual operating costs by major cost center are further broken down by ton of ROM processed. Labor and Reagents are the highest cost drivers for Process area.

Table 14-12 Cost of Processing Plant Equipment (1,800 stpd Capacity)

Operating Cost Summary ($/ ton ore)	TOTAL	Crushing	Grinding	Flotation	Dewatering	Tailings	Maintenance	Reag/Utils	Paste	G&A
Labor	7.69	1.59	1.17	1.32	0.58	0.32	0.86	0.56	-	1.28
Power	2.38	0.66	0.90	0.36	0.21	0.15	-	0.10	-	-
Diesel Fuel & Equipment Rental	0.70	-	-	-	-	-	-	-	-	0.70
Reagents	7.53	-	-	7.04	0.48	-	-	-	-	-
Operating Supplies	0.95	0.31	0.30		0.08		-	0.23	-	0.03
Maintenance Supplies	1.76	0.49	0.52	0.34	0.14	0.14	-	0.14		-
Assay Lab Services	0.09	-	-	-	-	-	-	-	-	0.09
Process G&A	0.03	-	-	-	-	-	-	-	-	0.03
TOTAL	21.12	3.05	2.89	9.07	1.49	0.60	0.86	1.03	-	2.13

General assumptions used for the OPEX model are shown in Table 14-13 below.

Table 14-13 Major Assumptions for Operating Cost Estimation

MAJOR ASSUMPTIONS	
Mill Throughput Rate (Mstpy)	0.66
Mill Throughput Rate (st/d)	1800
Mill Plant Availability (%)	95
Mill Throughput Rate (st/h)	79
Assumed Overtime (%)	5

The labor component for mill operations and maintenance includes critical operational, technical, and maintenance support for a 24/7/365 operating schedule. The exception being that primary crushing is staffed to occur on a single shift only. Secondary crusher operation will occur as needed. The staffing table and associated cost assumptions in below.

Table 14-14 Labor Cost Estimation

Position	Number	Base Rate	Base Salary	Burden	Overtime	Annual Cost	Annual
		$/hr/person	$/yr/person	Overhead	Allowance	per Person	Cost
Process Manager	1		$ 190,000	$ 66,500		$ 256,500	$ 256,500
Operations Shift Supervisor	4		$ 105,000	$ 36,750		$ 141,750	$ 567,000
Operator - Control Room	4	$ 35	$ 72,800	$ 25,480	$ 3,640	$ 101,920	$ 407,680
Operator - Primary Crushing	2	$ 30	$ 62,400	$ 21,840	$ 3,120	$ 87,360	$ 174,720
Operator - Secondary Crushing	4	$ 30	$ 62,400	$ 21,840	$ 3,120	$ 87,360	$ 349,440
Operator - Grinding / Regrinding	4	$ 30	$ 62,400	$ 21,840	$ 3,120	$ 87,360	$ 349,440
Operator - Flotation	4	$ 30	$ 62,400	$ 21,840	$ 3,120	$ 87,360	$ 349,440
Operator - Concentrate Thickening / Filtration	2	$ 30	$ 62,400	$ 21,840	$ 3,120	$ 87,360	$ 174,720
Operator - Reagents & Utilities	2	$ 28	$ 58,240	$ 20,384	$ 2,912	$ 81,536	$ 163,072
Clerk	1	$ 20	$ 41,600	$ 14,560		$ 56,160	$ 56,160
Maintenance General Foreman/Superintendent	1		$ 125,000	$ 43,750		$ 168,750	$ 168,750
Maintenance Planner	1		$ 95,000	$ 33,250		$ 128,250	$ 128,250
Mechanical Supervisor	1		$ 100,000	$ 35,000		$ 135,000	$ 135,000
Electrical Supervisor	1		$ 100,000	$ 35,000		$ 135,000	$ 135,000
Mechanics	6	$ 38	$ 79,040	$ 27,664	$ 3,952	$ 110,656	$ 663,936
Electricians	4	$ 38	$ 79,040	$ 27,664	$ 3,952	$ 110,656	$ 442,624
Chief Metallurgist	1		$ 130,000	$ 45,500		$ 175,500	$ 175,500
Entry level metallurgist	1		$ 90,000	$ 31,500		$ 121,500	$ 121,500
Metallurgical Technician	4	$ 20	$ 41,600	$ 14,560	$ 2,080	$ 58,240	$ 232,960
TOTAL	**48**						**$ 5,051,692**

Power consumption is listed in the table below and reflect the current run time projections, ore hardness, and installed horsepower of the current process configuration.

Table 14-15 Power Cost Estimation

Area	Consumption	Unit Price	Cost
	kWh/st	$/kWh	$/st
Primary Crushing-Conveying	7.0	$ 0.06	$ 0.42
Secondary Crushing-Screening	4.0	$ 0.06	$ 0.24
Grinding (74 µm primary grind)	13.0	$ 0.06	$ 0.78
Flotation	6.0	$ 0.06	$ 0.36
Concentrate Regrinding (45-52 µm)	2.0	$ 0.06	$ 0.12
Dewatering	3.5	$ 0.06	$ 0.21
Tailings Pumping & Disposal	2.5	$ 0.06	$ 0.15
Reagents	0.6	$ 0.06	$ 0.04
Utilities & Water	1.0	$ 0.06	$ 0.06
TOTAL	**39.6**	**$ 0.06**	**$ 2.38**

The reagent suite and consumptions are based on bench top testing and reflect the best-known conditions we have to date. Reagent pricing was an average budgetary estimate from current regional suppliers FOB the Bunker Hill site. Where freight wasn't provided, trucking estimates were obtained by a regional carrier.

Table 14-16 Reagent Cost Estimation

REAGENTS	Consumption		Unit Price	Cost
	lb/st	lb/yr	$/lb	$/st
Zinc Sulfate	1.40	921,736	$ 0.909	$ 1.28
Copper Sulfate	1.40	921,736	$ 1.602	$ 2.25
Zn(CN)2	0.30	197,515	$ 6.660	$ 2.00
Lime - Flotation	2.00	1,316,765	$ 0.116	$ 0.23
Flocculant	0.10	65,838	$ 4.824	$ 0.48
AP242	0.12	79,006	$ 5.463	$ 0.66
SIPX	0.30	197,515	$ 1.503	$ 0.45
MIBC	0.08	52,671	$ 2.196	$ 0.18
Other	-	-	-	
TOTAL				**$ 7.53**

Table 14-17 Cost Estimation of Operating Supplies

Area	Consumption lb/st	Cost $/lb	Cost $/yr	Cost $/st
Balls - Ball Mill (150 microns)	0.100	2.270	149,139	0.23
Balls - Regrind Mill (25 microns)	0.034	2.270	50,707	0.08
Conveyor Belting/Splicing Supplies			85,000	0.13
Screen Panels Secondary	5,000	24	120,000	0.18
Screen Panels Tertiary	-	24	-	-
Filter Cloths	500	100	50,000	0.08
Filter Aid			-	-
Safety Supplies & Equipment			10,000	0.02
Laboratory Supplies & Equipment			10,000	0.02
Misc. Operating Supplies			150,000	0.23
TOTAL			**425,000**	**0.95**

Maintenance consumables and associated costs are listed in the table below. Liner consumption estimates were based on industry comparable rates and assessed against the Bunker Hill hardness data. Without accurate work histories, a general allowance for additional maintenance parts was assessed at 2% of the installed equipment cost. Contract maintenance support was added for shutdown support and supplement site maintenance as needed.

Table 14-18 Cost Estimation of Maintenance Supplies

Area	Consumption	Unit Price	Cost	
	lb/st	$/lb	$/yr	$/st
Liners - Primary Crushing	0.012	$ 5.00	$ 39,420	$ 0.06
Liners - Secondary Crushing	0.020	$ 4.20	$ 55,188	$ 0.08
Liners - Ball Mill	0.193	$ 1.20	$ 152,161	$ 0.23
Liners - Regrind	0.016	$ 1.20	$ 12,614	$ 0.02
Maintenance Parts (2.0% of installed cost)			$ 600,000	$ 0.91
Oil and Grease			$ 75,000	$ 0.11
Contractor Services - Maintenance			$ 150,000	$ 0.23
Tools and Equipment			$ 75,000	$ 0.11
TOTAL				**$ 1.76**

15 PROJECT INFRASTRUCTURE

The Bunker Hill complex is a mature mine with much of the underground infrastructure and development still in place. The mill, smelter and tailing impoundment have been removed and these sites have been reclaimed. Part of the reclamation included surface water diversion structures which are still in use and are maintained in good condition. The original Bunker Hill mine offices, car and maintenance shops, and change house are located near the Kellogg Tunnel (KT) portal and are in serviceable condition.

Figure 15-1 Kellogg Office Complex and Kellogg Tunnel Portal

Road access to the property and the various mine access portal locations are good to excellent. The Kellogg Tunnel (KT) portal is located immediately adjacent to the mine offices at the 2,380 ft elevation. The KT is currently rail haulage and connects to the main hoist rooms and inclined shafts approximately 9,500 ft laterally to the south-southwest on the 9-level at the 2,415 ft elevation. Levels 8 through 4 are above the 9-Level on approximately 175 ft intervals. Levels 10 to 28 are below the 9-Level at approximately 200 ft intervals. Additional mine portals provide access to the 5-level on the Wardner side of the mine. There is a tremendous complex of underground shafts, raises and other infrastructure at Bunker Hill, only infrastructure germane to restarting mining operations are addressed in this report. Bunker Hill site layout is shown in Figure 15-2. Avista Utilities (Avista) supplies electrical power to the mine from a sub-station located near the Kellogg side office complex. The Kellogg offices have a high-speed internet connection.

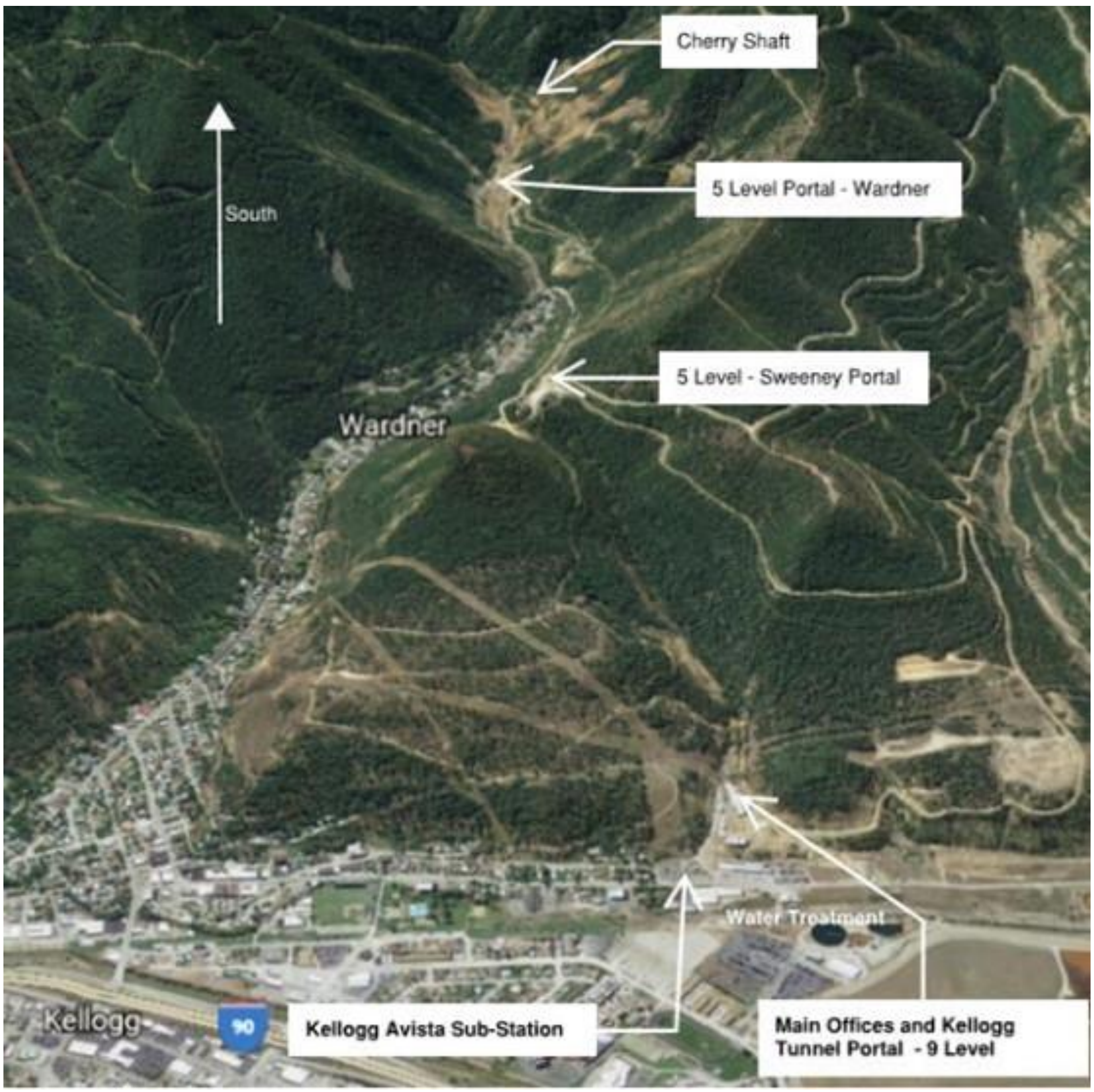


Figure 15-2 Bunker Hill Site Layout

15.1 SITE ACCESS AND COMMUNITY

Bunker Hill is located in Kellogg Idaho along the Interstate 90 corridor on the west side of what is traditionally known as the Silver Valley. It is 60 miles from the Spokane, WA airport to the west and 125 miles to the Missoula, MT airport to the east. The Silver Valley of north Idaho is a desirable place to live and is home to an enthusiastic and talented underground mining work force.

15.2 ELECTRICAL POWER AND DISTRIBUTION

The Avista Kellogg substation is located next to the Bunker Hill main offices and supplies power to the mine and other local consumers.

There are two existing distribution lines now supplying the mine from the Kellogg Avista substation. One feeds the surface mine facilities and the underground loads from the Kellogg side, the other feeds the Wardner mine yard and facilities. The current 3-phase 2.5kV mine distribution system on the Kellogg side is in the process of being upgraded to 3-phase 13.2kV. The overhead powerlines leading to the Wardner side of the mine will be completely upgraded with 3-phase 13.2kV by October 2022. New underground power feeds will be brought in on the Wardner side on 5-level and dropped down to the 9-level for distribution to the mine. A new power feed was installed in the KT to the 9-level underground distribution and currently feeds the underground at 2.5kV. This is a 25kV rated cable and will be upgraded to 13.2kV to minimize line voltage loss. The 9-level around the #1 and #2 hoist rooms will remain the hub of underground infrastructure. The existing u/g substations and switchgear will be replaced with modern equipment. Bunker Hill has been working closely with Avista to upgrade the electrical supply infrastructure to both the main Bunker Hill yard (9-level) and Wardner (5-level) sites. Additional capacity will be freed up at the main Kellogg/Bunker Hill substation by redirecting other non-mine loads to adjacent Avista substations where feasible (either immediately or with minimal additional infrastructure). Capital costs for these activities are funded by the project up front and then credited back to the operational power bill over the life of the project.

15.3 MINE WATER

Mine discharge water now gravity drains out the 9-level through the KT via a ditch adjacent to the rail line to the portal. It is then routed to a water treatment plant constructed by the EPA and currently operated by the Idaho Department of Environmental Quality (IDEQ), see Section 3.2. Water above the 9-level naturally drains out of the KT and averages 500 gpm. Below the 9-level water must be pumped to dewater the workings. Maintaining a water level below the 9-level requires about 700 gpm (1,200 gpm total) to be pumped out of the mine. An additional pumping capacity of 600 gpm was assumed to draw the water table down to successive levels in the mine based on operational experience. It is envisioned to handle the water above and below the 9-level in separate pipeline systems out the KT. Water below the 9-level will be staged up through a series of pump stations located on each level. Mine discharge will continue to be treated at the IDEQ facility under a continued use agreement, all costs of which are included in reported operating costs.

Mine and process water distribution will be developed from underground water sources with either clean water collection sumps or underground interception wells. There is currently not a mine wide water distribution system, but systems for process and dewatering are included in the capital estimates. CAPEX has been budgeted for utilization of underground water sources to be used for mining activities and the mill/process facility will have its own process and make-up water system budgeted for.

15.4 ENGINEERED HYDRAULIC (PASTE) BACKFILL PLANT

BHMC commissioned Patterson & Cooke North America to perform tradeoff studies for costing and operating the mine backfill and tailing placement facilities. The main factors investigated for capital expenditures were pumping requirements based on the material being transported vs friction loss on the pipe run-lengths, ease of binder transport to location, cost to construct (excavate) and future efficiency to distribute to mining areas.

The logistics of operating the milling and processing operations with the hydraulic backfill plant were also considered. The backfill plant will produce two basic products; high strength modulus product for engineered fill back into stope voids and, a low strength modulus product to dispose of excess tailing materials into historic mine openings or when possible secondary stope voids. Pumping the thickened tails underground directly from the mill thickener to vacuum filtering, binder addition and fill placement is viewed to have logistical issues. Filter cake storage is limited underground which requires the mine to place fill constantly while the mill is running. Conversely, when the mill is not running the mine will not have a fill product.

Capital estimates were developed for the four basic components of the system:

1. Tailing thickening
2. Thickened tailings pumping
3. Thicken tailing vacuum filtering (filter cake)
4. Binder addition and pumping fill into the mine

The tradeoff studies investigated options for locating the four components of the plant:

- All components on surface directly adjacent to the mill tailing thickener,
- Tailings thickening at the mill with thickened tails being pumped underground to the 5-level of the mine where vacuum filtering, binder addition and pump distribution down into the mine voids,

- Tailings thickening at the mill with thickened tails being pumped underground to the 9-level existing excavation known as the Scotty Shop, where vacuum filtering, binder addition and pump distribution up and down into the mine voids,
- Tailings thickening and vacuum filtering at the mill with filter cake being backhauled in the offroad ore haul trucks to the 5-level Wardner (Russell) mine yard where binder addition and pump distribution down into the mine voids will take place.

Results from the tradeoff studies led to the location of the plant on surface, both adjacent to the mill and at Wardner. Tailings thickening will take place inside the mill/process facility building, with the underflow being pumped to the tailings filtration plant located adjacent to the mill/process building. Vacuum filtration will take the thickened tailings and produce a filter cake material which will be deposited and stored in a load-out facility at the plant. A surface loader will transfer the filter cake tailings into overland haul trucks to deliver the material up to the Wardner side of operations along the return route from ROM ore haulage. This saves the requirement to construct a thickened tailings pumping system to deliver feed to the paste plant from the tailings thickener and incurs a lower operational cost to utilize the return trip of the haul trucks to Wardner.

Once delivered to the storage facility at Wardner, material will be loaded into the paste plant, combined with an ordinary cement binder, and subsequently pumped underground via a reticulated piping system. Location at Wardner on the 5-level of the mine will work to greatly reduce the pump horsepower requirements as a majority of the stoping will occur below this elevation. Reticulation piping will work to both deliver backfill material to stoping areas as sequence backfill and to historically mined out void space for storage of additional tailings material. A detailed equipment capital list has been compiled for the 3 components of the plant (tailings thickening, paste plant and reticulation system). Continued detailed engineering is underway for the arrangements and construction of both the Kellogg and Wardner facilities. An operational cost associated with the paste backfill has been assigned to the overall mining cost buildup.

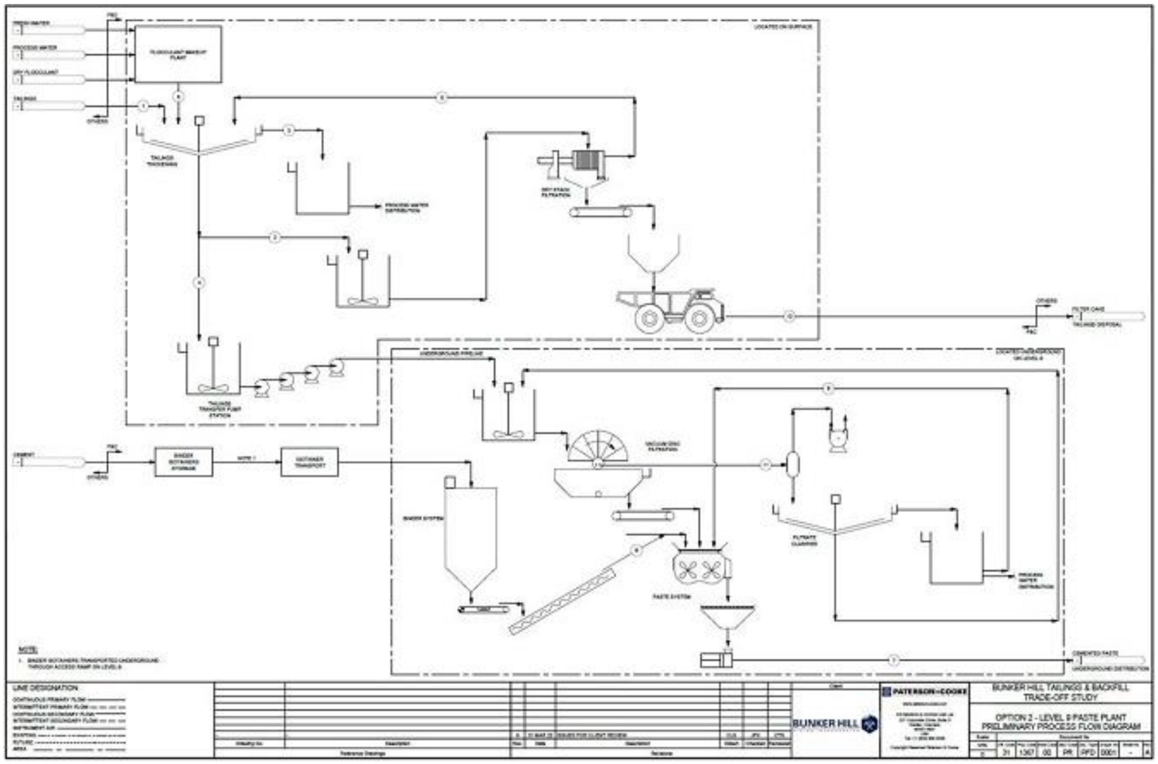


Figure 15-3 Paste Plant PFD

STREAM NUMBER		1	2	3	4	5	6	7	8	9	10	11
DESCRIPTION	-	FLOTATION TAILINGS	THICKENER UNDERFLOW TO PRESSURE FILTER	THICKENER OVERFLOW	THICKENER UNDERFLOW TO PASTE PLANT	PRESSURE FILTER FILTRATE	BINDER	PASTE	FLOCCULANT	TRIM WATER	FILTER CAKE TO DRY STACK	VACUUM DISC FILTER FILTRATE
SOLIDS DENSITY	lb/ft3	174	-	174	174	-	197	175	-	174	-	174
LIQUID DENSITY	lb/ft3	62.4	-	62.4	62.4	-	-	62.4	62.4	62.4	-	62.4
SOLIDS MASS FLOW RATE - NOMINAL	stph	52.5	-	0.152	52.4	-	2.28	54.5	0	0.00	-	0.017
SOLIDS MASS FLOW RATE - DESIGN	stph	57.8	-	0.167	57.6	-	2.40	60.0	0	0.00	-	0.018
LIQUID MASS FLOW RATE - NOMINAL	stph	158	-	152	28.2	-	0	18.2	5.25	7.07	-	17.1
LIQUID MASS FLOW RATE - DESIGN	stph	173	-	167	31.0	-	0	20.0	5.78	7.78	-	18.8
MIXTURE VOLUMETRIC FLOW RATE - NOMINAL	gpm	704	-	606	180	-	2.77	150	21.0	28.2	-	68.3
MIXTURE VOLUMETRIC FLOW RATE - DESIGN	gpm	774	-	666	206	-	3.04	165	23.1	31.1	-	75.1
MIXTURE DENSITY	lb/ft3	74.3	-	62.5	107	-	197	121	62.4	62.4	-	62.5
MIXTURE SOLIDS MASS CONCENTRATION	%m	25.0	-	0.100	65.0	-	100	75.0	0	0.00	-	0.100

Figure 15-4 Paste Plant Tailings to Paste Fill Mass Balance Tables

Table 15-1 Paste Plant Estimated Equipment CAPEX

Costs in USD$ x (1,000)	Direct Costs	Indirect Costs	Total Cost
Tailings Thickening	$ 504	$ 17	$ 521
Paste Plant	$ 3,348	$ 134	$ 3,482
Reticulation system	$ 985	$ 30	$ 1,015
Total Paste Backfill CAPEX	**$ 4,837**	**$ 181**	**$ 5,018**

Table 15-2 Tailings Thickening Component Direct Cost Detail

Equipment	No of Units	UOM	$/Unit	Total Material Cost
Thickener break tank	1	ea	$ 14,950	$ 14,950
Tailings thickener	1	ea	$ 211,000	$ 211,000
Thickener underflow pump	2	ea	$ 17,554	$ 35,108
Thickener overflow tank	1	ea	$ 8,785	$ 8,785
Thickener overflow pump	2	ea	$ 28,525	$ 57,050
Thickener area sump pump	1	ea	$ 11,000	$ 11,000
Flocculant makeup plant	1	ea	$ 49,615	$ 49,615
Thickener feed pump	2	ea	$ 33,936	$ 67,872
Adjustments				$ 870
Process Equipment Sub-Total				**$ 456,250**
6" Carbon steel CL 150	300	ft	$ 30	$ 9,000
<4" dia. All other pipe	480	ft	$ 29	$ 13,920
Piping escalation allowance (20%)	1	lot	$ 11,154	$ 11,154
Allowance for piping supports and hardware	1	lot	$ 2,243	$ 2,243
Adjustments				$ 833
Piping and Valves Sub-Total				**$ 37,150**
Electrical Components				$ 5,100
Control and Instrumentation				$ 5,100
Tailings Thickening Combined Sub-Total				**$ 503,600**

Table 15-3 Paste Plant Direct Cost Detail

Equipment	No of Units	UOM	$/Unit	Total Material Cost
Vacuum disc filter feed tank	1	ea	$ 167,000	$ 167,000
Vacuum disc filter feed tank agitator	1	ea	$ 75,000	$ 75,000
Vacuum disc filter feed pump	1	ea	$ 11,581	$ 11,581
Vacuum disc filter and ancillaries (vacuum pump, snap air receiver, filtrate receiver)	1	ea	$ 495,000	$ 495,000
Filtrate pump	1	ea	$ 9,615	$ 9,615
Filter cake conveyor	1	ea	$ 175,000	$ 175,000
Continuous mixer	1	ea	$ 149,338	$ 149,338
Continuous mixer pressure washer	1	ea	$ 41,926	$ 41,926
Paste surge hopper	1	ea	$ 38,000	$ 38,000
Paste pump	1	ea	$ 450,000	$ 450,000
Plant dust collector	1	ea	$ 25,212	$ 25,212
Binder silo	1	ea	$ 50,000	$ 50,000
Rotary valve	1	ea	$ 9,615	$ 9,615
Weigh feeder	1	ea	$ 80,000	$ 80,000
Transfer conveyor	1	ea	$ 14,420	$ 14,420
Paste diverter valve	1	ea	$ 50,000	$ 50,000
Clean water tank	1	ea	$ 64,084	$ 64,084
Clean water pump	1	ea	$ 15,000	$ 15,000
Flocculant makeup plant	1	ea	$ 49,615	$ 49,615
Flush pump	1	ea	$ 60,000	$ 60,000
Process water tank	1	ea	$ 30,000	$ 30,000
Trim water pump	1	ea	$ 9,615	$ 9,615
Return water pump	1	ea	$ 15,000	$ 15,000
Drive-in sump pump	1	ea	$ 11,000	$ 11,000
Overhead crane	1	ea	$ 120,000	$ 120,000
Air compressor	1	ea	$ 100,000	$ 100,000
Plant air receiver	1	ea	$ 38,000	$ 38,000
Instrument air dryer	1	ea	$ 6,919	$ 6,919
Instrument air receiver	1	ea	$ 11,000	$ 11,000
Adjustments				$ 435
Process Equipment Sub-Total				**$ 2,372,375**
12" Carbon steel, CL 150	50	ft	$ 67	$ 3,330
<4" dia. All other pipe	900	ft	$ 29	$ 25,902
Piping escalation allowance (20%)	1	lot	$ 9,821	$ 9,821
Allowance for valves	1	lot	$ 5,893	$ 5,893
Allowance for hardware	1	lot	$ 4,495	$ 4,495
Adjustments				$ 684
Piping and Valves Sub-Total				**$ 50,125**
Provisional sum				$ 47,439
MCC (Motor Control Center)				$ 500,000
Adjustments				$ 461
Electrical Sub-Total				**$ 547,900**
Control and Instrumentation				$ 118,600
Concrete	200	yd3	$ 485	$ 97,000
Structural and Building				$ 161,750
Paste Plant Combined Sub-Total				**$ 3,347,750**

Table 15-4 Reticulation System Direct Cost Detail

Equipment	No of Units	UOM	$/Unit	Total Material Cost
4" Sch 40, Style 77 Vic	1000	ea	$ 46	$ 46,493
5" HDPE SDR 7	10533	ea	$ 10	$ 105,330
HP-70ES Vic Couplings	50	ea	$ 114	$ 5,700
Style 77 Vic Couplings	480	ea	$ 52	$ 24,960
U-bolt Hangers	664	ea	$ 107	$ 71,015
Chain Hangers	664	ft	$ 68	$ 44,847
Axial Anchor	66	ea	$ 1,699	$ 112,115
Guide Bracket	66	ea	$ 1,285	$ 84,805
PIPE COMPONENTS	1	lot	$ 300,000	$ 300,000
4" Centerlugged Sch 120 Borehole Piping	551	ea	$ 344	$ 189,544
Adjustments				$ 491
Reticulation System Sub-Total				**$ 985,299**

16 MARKET STUDIES AND CONTRACTS

Concurrent with the agreement to satisfy the remaining purchase price of the Pend Oreille mill from a subsidiary of Teck Resources Limited ("Teck") in an equity issuance, Bunker granted Teck an option to acquire 100% of both zinc and lead concentrate production for an initial term of 5 years after the mine has commenced production of concentrates, with such option to be exercised by March 31, 2023. In the event that the option is exercised, detailed agreements are to be negotiated with treatment and refining charges to be based on benchmark terms, and other terms to be mutually agreed. The Prefeasibility Study assumes that the option is exercised, with all concentrates delivered to Trail, British Columbia. Accordingly, a third-party consultant was engaged for an analysis of future benchmark treatment and refining charges. Long-term zinc and lead treatment charge assumptions of $215 and $150 per dry metric tonne, respectively, were assumed for the economic analysis in the Prefeasibility Study, in addition to a refining charge of $1.25 per payable ounce of silver in the lead concentrate. An arsenic penalty of $4.08 per dry short ton was assumed for the lead concentrate, with no penalties assumed for the zinc concentrate, based on analysis of metallurgical assays.

Freight charges were estimated based on discussions with local operators and under fuel prices assumed in the Pre-feasibility Study, under the assumption of overland haulage to Trail, BC.

The qualified person has reviewed these studies and confirms the results support the assumptions in this Technical Report Summary.

17 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

17.1 BACKGROUND

Environmental contamination of surface water, groundwater, soil, and sediment occurred at the Site as a result of mining, milling and smelting operations in the Silver Valley, including but not limited to, at the Bunker Hill Mining and Metallurgical Complex (“Complex”), of which the Mine was a part. Operations at the Complex started in 1885 and continued through the 1980s, and included an integrated system of mining, milling and smelting. Prior to 1928, liquid and solid waste from the Complex was discharged directly into the South Fork of the Coeur d’Alene River and its tributaries. Following 1928, waste from the Complex was directed to a nearby floodplain where a Central Impoundment Area (“CIA”) was developed. Acid mine drainage (“AMD”) and wastewater from the Complex were discharged to a settling pond in the CIA. In 1974, a Central Treatment Plant (“CTP”) was built by the Bunker Hill Mining Company, the owner and operator of the Complex at the time. AMD and wastewater from the Complex were stored in an unlined pond in the CIA before being decanted to the CTP. In 1981, following the closure of the smelter, the CIA was no longer required to impound wastewater from the Complex, although surface run off from the Complex and AMD from the Mine were still routed to the CIA prior to treatment at the CTP. Sludge which formed during the treatment process was also disposed in unlined ponds at the CIA.

Ownership of the Complex passed through a number of companies throughout the 100-year operation of the Complex. In early 1991, the Bunker Limited Partnership, then owner of the Complex and operator of the CTP, closed the Mine and filed for bankruptcy. In late 1991 and 1992, PMC purchased a portion of the Site, which includes underground workings, mineral rights, and much of the land surface above the Mine, from Bunker Limited Partnership. PMC did not purchase the entire Complex nor the CTP. In November 1994; federal and State governments assumed operation of the CTP for ongoing treatment of AMD.

AMD is a result of acid-forming reactions occurring within the Mine among water, oxygen, sulfide minerals (especially pyrite) and bacteria. AMD is acidic with typical pH levels between 2.5 and 3.5, and it contains high levels of dissolved and suspended heavy metals. For human receptors, the constituents of primary concern at the Site found in the AMD are arsenic, cadmium, lead, mercury, and thallium, and for aquatic and terrestrial receptors they are aluminum, arsenic, cadmium, copper, iron, lead, manganese, mercury, selenium, silver, and zinc. Impacts on human health from exposure to these constituents include carcinogenic effects, skin lesions, neuropathy, gastrointestinal irritation, kidney damage, interference with metabolism, and interference with the normal functioning of the central nervous system. Impacts on the environment from exposure to these constituents include significant mortality offish and invertebrate species, elevated concentrations of metals in the tissues of fish, invertebrates, and plants, and reduced growth and reproduction of aquatic life.

AMD is generated and discharged from the Mine continuously. AMD from the Mine is drained through the Kellogg Tunnel portal and then passes through a conveyance system to the CTP for treatment. Average AMD discharge from the Mine during typical flow periods is approximately 1300 gallons per minute. During high flow periods AMD may be diverted to a lined surface impoundment on the Site, where it mixes with other minimal wastewater streams from the Mine. From the impoundment, it is pumped to the CTP for treatment. If not collected and treated at the CTP, AMD from the Mine would flow downhill through the mine yard, across properties where public and environmental exposures would occur, and into Bunker Creek and the South Fork Coeur d'Alene River where it would have significant detrimental effects on water quality and the ecosystem.

Initially, the Bunker Hill Superfund Site was divided into two operable units, the Populated Areas and the Non-Populated Areas, in order to focus investigation and cleanup efforts. A Record of Decision ("ROD") for the Non-Populated Areas Operable Unit was signed on September 22,1992. A ROD Amendment for the Non-Populated Areas Operable Unit, addressing the management of AMD was issued in December 2001. A third operable unit was created to address contamination in the Coeur d'Alene Basin, and a ROD for Operable Unit 3, the Coeur d'Alene Basin, was issued in 2002.

In 1994, EPA issued a unilateral administrative order("UAO") to PMC directing PMC to keep the mine pool pumped to an elevation below the level of the South Fork Coeur d'Alene River (at or below Level 11 of the Mine) to prevent discharges to the river, to convey mine water to the CTP for treatment unless an alternative form of treatment was approved, and to provide for emergency mine water storage within the mine. In 2017, EPA issued a UAO to PMC directing PMC to control mine water flows to the CTP during needed upgrades at the CTP and in high flow periods, to conduct operation and maintenance of the Reed Landing Flood Control Project, to file an environmental covenant on a portion of the Mine property regarding access and operation and maintenance and allowing PMC to fill the mine pool to Level 10 during diversion events.

Response actions required by the 1994 and 2017 UAOs are currently being performed by Bunker Hill Mining Corp. Upon the later of the Effective Date of the Settlement Agreement, US EPA withdrew the 1994 and 2017 UAOs. To the extent that aspects of those UAOs required ongoing work, Bunker Hill Mining Corp agreed to perform such work when it became the operator of the Mine and is now continuing to perform that work now that Bunker Hill Mining Corp is the owner of the Mine.

17.2 ONGOING ENVIRONMENTAL ACTIVITIES

BHMC began a study of the Bunker Hill Mine water system in March of 2020. The review included studies conducted by the US EPA and research conducted by the Bunker Hill Water Management team. This led to a formulation of the following near-term water management activities:

- Acid Mine Drainage ("AMD") Collection System – this captures and controls flows of Acid Mine Drainage to keep them separate from cleaner water in the mine. Total collected AMD flows from levels 5 through 9 fluctuate between 6 gallons per minute and 30 gallons per minute depending on the season that contains approximately 70% of the metal load in the effluent of the Mine. This system was designed and implemented in 2020 and is still in use as of the effective date of this report.

- Surface Water Infiltration Study – BHMC has entered into a Sponsored Research Agreement with University of Idaho to conduct a study of infiltration of surface waters into Bunker Hill Mine. The study will be conducted by a Water Resources graduate student with support from the Hydrology and Hydrogeology faculties. This will inform future source control projects that will seek to limit water infiltration.

- Source Control Program –This will reduce the amount of surface waters entering the mine, which is ultimately expected to reduce water treatment costs by reducing the amount of water requiring treatment. The initial project is a series of test plots of trees, shrubs and grasses to determine which mix of plants will most effectively revegetate the surface expression of the Guy Cave with a dense and broad root network. This project is being carried out in collaboration with the University of Idaho. This area is a barren hillside that is a major point of water infiltration. Within the mine, the Guy Cave is rich in pyrite, which produces Acid Mine Drainage when mixed with air and water. Reducing the amount of water infiltration into this area will significantly reduce the amount of Acid Mine Drainage produced within the mine. The second area of collaboration with the University of Idaho that aims to reduce water in-flow through the surface expression of the Guy Cave is an engineering project that will evaluate the effectiveness and cost of different approaches to establishing a cap or a barrier to flow. This has been designed as a 3-year initiative.

- Water Sampling and Testing – Water samples are collected on monthly basis for wide spectrum testing that includes 45 different analytes at 30 different locations in and around the Bunker Hill Mine. Once a sufficient amount data has been collected, these results will allow BHMC to apply for an IPDES water discharge permit in the future. Field parameters are measured on a biweekly basis by the BHMC Water Management team using a collection of instruments. The parameters include conductivity, pH, dissolved oxygen, total dissolved solids, water temperature, ambient temperature, ambient humidity and flow rate. The sum total of this information provides insights into the efficacy and impacts of water management program activities and deepen understanding of the Bunker Hill Mine water system. Much of this information is available to the public in the "Interactive Database" section of the BHMC website. BHMC is collaborating with the University of Idaho in a multi-year study of the water system as well. This study focuses on the presence of specific isotopes within water molecules that create a unique signature that all the research team to determine the pathways and rate of flow of water from snowpack on the mountains above the mine on their journey into and out of the mine. This will ultimately inform water modeling and lead to more efficient water management practices.

Many of these activities will continue and extend far into the future. The duration and intensity of these activities will depend primarily on two factors: (1) development of understanding through continuous improvement of a Conceptual Site Model and (2) the magnitude of impacts generated by the activities as measured and recorded by BHMC performance monitoring.

17.2.1 PILOT WATER TREATMENT PLANT

Over the summer of 2022, Bunker Hill conducted a pilot scale water treatment study (WTP), under the direction and design completed by Mine Water LLC. The plant was housed in the existing surface infrastructure outside the Kellogg Tunnel portal. The goal of the plant was to understand the mine site's water treatment requirements. The pilot system was capable to treating 50 – 120 gpm of mine effluent water. It made use of a Lamella clarifier in conjunction with lime slurry addition and multiple stages of flocculation and agitation to treat the water currently discharging from the Kellogg Tunnel. That effluent is currently piped to the IDEQ-operated and US EPA-owned Central Treatment Plant (CTP). Products from the plant are a stream of cleaned water meeting all requisite discharge standards and a high-density sludge (HDS) material that was scheduled to be included into the paste-backfill tailings stream to be included in stope backfill.

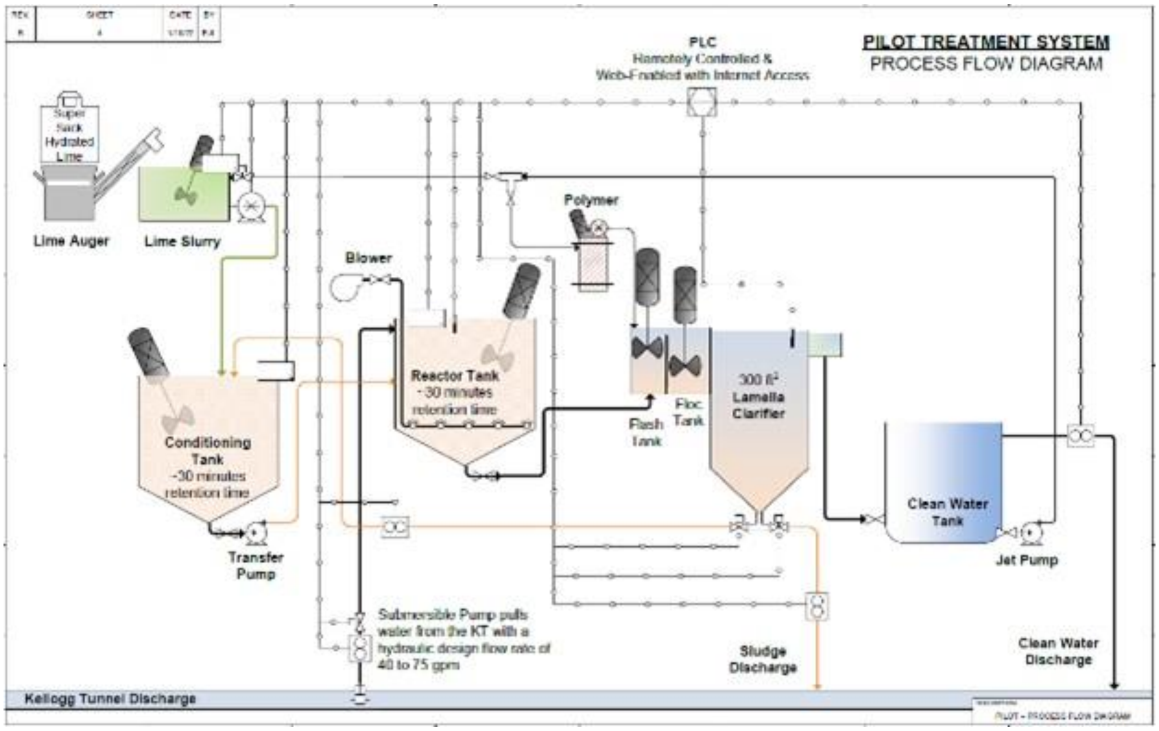


Figure 17-1 Pilot Water Treatment Plant Process Flow Diagram

Testing commenced in May 2022 and finished in July 2022. A total of 16 tests were scheduled, of which 10 were completed covering various parameters of pH, flow and flocculant dosages. The pilot WTP program and design proves that Bunker Hill could construct a WTP capable of meeting its discharge standards for full mine effluent. As of the effective date of this report, all testing using the pilot WTP has concluded, and results verified by Mine Water LLC. The plant itself is currently being disassembled at the Bunker Hill mine site.

Table 17-1 Bunker Hill Pilot Water Treatment Program Test Scenarios

Treatability Study Scenarios - IWTP Variables

Scenario#	IWTP Parameters				Field Testing		Lab Analysis				
	Flow Rate (gpm)	pH Reactor Tank (SU)	Polymer Dosage (ppm)	MHDS (gpm)	Field Sample Freq	pH, ORP, Cond, & Temp	Total Recoverable Metals (200.7 and 200.8)	Dissolved Metals[1] (200.7 and 200.8)	Alkalinity (2320B) & Anions (300.0)	Hardness (2340B)	TSS
#2	40-60	8	1.5 (0.25% - 4/10)	5	Steady State	✓	✓	✓ Not Sludge	✓	✓ Not Sludge	✓ Not Sludge
#3	40-60	9	1.5 (0.25% - 4/10)	5	Steady State	✓	✓	✓ Not Sludge	✓	✓ Not Sludge	✓ Not Sludge
#3A	40-60	10	1.5 (0.25% - 4/10)	5	Steady State	✓	✓	✓ Not Sludge	✓	✓ Not Sludge	✓ Not Sludge
#4	61-80	7	1.5 (0.25% - 7/10)	5	Steady State	✓	✓	✓ Not Sludge	✓	✓ Not Sludge	✓ Not Sludge
#5	61-80	8	1.5 (0.25% - 7/10)	5	Steady State	✓	✓	✓ Not Sludge	✓	✓ Not Sludge	✓ Not Sludge
#6	61-80	9	1.5 (0.25% - 7/10)	5	Steady State	✓	✓	✓ Not Sludge	✓	✓ Not Sludge	✓ Not Sludge
#6A	61-80	10	1.5 (0.25% - 7/10)	5	Steady State	✓	✓	✓ Not Sludge	✓	✓ Not Sludge	✓ Not Sludge
#8	81-100	8	1.5 (0.50% - 4/10)	5	Steady State	✓	✓	✓ Not Sludge	✓	✓ Not Sludge	✓ Not Sludge
#9	81-100	9	1.5 (0.50% - 4/10)	5	Steady State	✓	✓	✓ Not Sludge	✓	✓ Not Sludge	✓ Not Sludge
#9A	81-100	10	1.5 (0.50% - 4/10)	5	Steady State	✓	✓	✓ Not Sludge	✓	✓ Not Sludge	✓ Not Sludge

Discussions are ongoing with IDEQ and US EPA about the proposed use of the CTP adjacent to the mine. These discussions have allowed Bunker Hill to project the continued use of the CTP through the remainder of mine life outlined in this report and subsequently not requiring the need to construct an internally operated water treatment plant. This allows for the capital expenditure savings of not having to construct an internal WTP, and the operational expense of additional staffing and reagent consumption. All costs associated with continued use of the CTP are scheduled into mine operational expenditures.

17.3 ONGOING WORK REQUIRED BY US EPA

BHMC is required by US EPA to perform all work required to manage AMD at Bunker Hill Mine. Several activities are described in the Settlement Agreement that related to this responsibility.

In-Mine Diversion System and Mine Pool:

BHMC has constructed an In-Mine Diversion System and manages the mine pool such that, when so directed by US EPA, diverted flows of Mine Waters will be stored within the mine or discharged at a controlled rate, and not result in uncontrolled discharge to the environment. The following criteria describe the performance criteria to be met:

1 Mine Waters to be Stored: Waters to be stored by Purchaser include all mine water which originate upstream of the Barney Switch within the mine, including the east side (Milo)gravity flows, the west side (Deadwood) gravity flows, and the lower country (Mine Pool) pumped flows.

2. Mine Pool Storage Volume: BHMC has provided storage volume using all void space (the mine workings) from a minimum of 30 feet below the sill of 11 Level at the No.2 Raise to the sill of 10 Level at the No.2 Raise.

3. In-Mine Diversion System Construction: BHMC and PMC constructed a diversion dam system in the Kellogg Tunnel downstream from the Barney Switch which backs up all Mine Waters into the Barney Vent Raise or other appropriate and approved location. The system has the capability to divert a minimum of 7,000 gallons per minute.

4. In-Mine Diversion System Activation: BHMC is required to activate the In- Mine Diversion System under the following circumstances:

   a. For emergencies: Within 4 hours of notification from US EPA, for a duration to be determined and requested by EPA based on the emergency situation, which may occur at any time; and

   b. For CTP or Conveyance Line Maintenance: Within 14 days of notification from EPA, for a duration to be determined and requested by US EPA based on the maintenance required.

5. In-Mine Diversion System Operation and Maintenance: BHMC will maintain and operate the In-Mine Diversion System until notification from US EPA that the system may be decommissioned and removed, in accordance with the following:

   a. The amount of In-Mine Diversion System building materials continuously kept at the diversion structure location shall be sufficient to divert all flows as required above, and to construct the diversion dam to provide the storage capacity required above;

   b. The diversion dam structure, location as described above, and adjoining ditches, are to be kept serviceable and in operable condition at all times for diversion dam construction, operation, and maintenance.

   c. The entire In-Mine Diversion conveyance system (e.g., Barney Vent Raise or other appropriate and US EPA-approved location) shall be inspected a minimum of twice per year, and more frequently if there are concerns regarding its ability to convey the capacity required above. BHMC maintains a written report of each inspection.

   d. The In-Mine Diversion conveyance system is cleaned, by hydraulic flushing or other means as necessary, at least once per year, and more frequently if needed to provide the capacity required in above. BHMC is required to inform US EPA within 7 days of completing each cleaning.

   e. Written diversion dam construction procedures and In-Mine. Diversion System operation and maintenance procedures are posted near the diversion dam structure location. This provides sufficient detail for diversion dam construction, and system operation and maintenance by all crew members. The written diversion dam construction procedures and system operation and maintenance procedures are periodically updated as needed. BHMC is required to provide the written procedures to US EPA upon request.

   f. Diversion dam construction procedures and system operation and maintenance procedures required above are periodically practiced, at least once per year, or more frequently as needed to ensure the required diversion response time can be met. BHMC is required to inform US EPA a minimum of 7 days prior to each diversion dam construction practice.

Kellogg Portal Contingency Diversion System:

Purchaser shall obtain and store a sufficient quantity of sandbags or other appropriate materials near the entrance to the Kellogg Tunnel with the designated purpose of containing, damming, and/or rerouting any flows into the Kellogg Tunnel ditch, in order to prevent any overland flow outside the ditch.

6. Waters to be diverted: All mine waters that are not contained within the Kellogg Tunnel ditch that are either within the Kellogg Tunnel or outside of the Kellogg Tunnel in the mine yard.

7. Continency Diversion System Materials: Sandbags or other materials that could be easily transported and assembled to route mine water back to the ditch in an emergency situation.

8. Contingency Diversion System Activation:

   a. Deployment of Contingency Diversion System: Within 1 hour of the first indication, or when BHMC knowns or should know, of mine water flowing outside of the Kellogg Tunnel ditch, regardless of cause.

9. Continency Diversion System Operation and Maintenance: BHMC is required to maintain and operate the Contingency Diversion System until notification from US EPA that the system may be decommissioned and removed, in accordance with the following:

   a. The amount of Contingency Diversion System building materials kept on-hand at all times must be sufficient to divert all flows as required above and shall be deployed in accordance with procedures described above in order to control flows during high flow events or to respond to emergencies.

   b. The Contingency Diversion System storage location and materials are kept serviceable and in operable condition at all times for Contingency Diversion System construction and operation.

   c. Written Contingency Diversion System construction procedures are posted near the diversion system materials storage location. Construction procedures provide sufficient detail for diversion system construction by all crew members. The construction procedures are periodically updated as needed. BHMC is required to provide the construction procedures to US EPA upon request.

   d. Contingency Diversion system procedures are periodically practiced, at least once per year, or more frequently as needed, to ensure that the required diversion response times as described above can be met. BHMC is required to inform US EPA a minimum of7 days prior to each Contingency Diversion System construction practice.

Reed Landing Flood Control Project Operations and Maintenance:

10. BHMC conducts operations and maintenance in accordance with the Reed Landing Flood Control Project Operations and Maintenance Manual (“O&M Manual”), which is appended to BHMC’s Settlement Agreement with US EPA.

11. BHMC conducts inspections of the Reed Landing Flood Control Project in accordance with the frequency described in the O&M Manual and fills out the Inspection Checklist for each inspection. This is provided to US EPA and the State of Idaho upon request.

12. BHMC removes snow and takes any other necessary steps to maintain access roads to provide for safe access to the Reed Landing Project area year-round.

Manage mine wastes to prevent a release of such waste into the environment.

Water discharge permit:

BHMC is required to obtain an IPDES/NPDES permit for its discharge of AMD and any other Mine-related discharges by May 15, 2023. Until that time, BHMC is required to continue to convey AMD to the CTP for treatment. US EPA may approve the conveyance of other Mine-related discharges to the CTP for treatment during this interim period. After May 15, 2023, BHMC is required to treat all AMD and Mine-related discharges pursuant to an EPA-approved treatment option and in compliance with Section 402 of the Clean Water Act,33 U.S.C.§1342. Treatment options may include:

a. Entering into a lease agreement with EPA providing for Purchaser to lease and operate the CTP;

b. Purchasing and operating the CTP; or

c. Constructing and operating a treatment plant.

Treat any flows from the Reed and Russell portals prior to discharge into surface waters or route back into the Mine to prevent discharge, without treatment, off-site. Currently all waters are being directed back into the mine.

Inspections:

13. US EPA may require an inspection of the In-Mine Diversion System to determine compliance with the requirements described above.

14. US EPA may have an on-site presence during these activities. At US EPA's request, BHMC or BHMC's designee will accompany US EPA for inspections during the activities to be Performed.

15. BHMC is required to provide any specialty personal protective equipment needed for US EPA personnel, transportation, and an escort for any oversight officials to perform their oversight and/or inspection duties within the mine.

16. Upon notification by US EPA of any deficiencies during these activities on any component, BHMC is required to take all necessary steps to correct the deficiencies and/or bring the activities into compliance. If applicable, BHMC is required to comply with any schedule provided by US EPA in its notice of deficiency.

Emergency Response and Reporting:

The reporting requirements below are in addition to the reporting required by CERCLA § 103 and/or the Emergency Planning and Community Right-to-Know Act("EPCRA") § 304.

17. If any incident occurs during performance of the activities described above that causes or threatens to cause a release of Waste Material on, at, or from the Mine and that either constitutes an emergency situation or that may present an immediate threat to public health or welfare or the environment, BHMC is required to:(1)immediately take all appropriate action to prevent, abate, or minimize such release or threat of release;(2)immediately notify the authorized US EPA officer; and (3) take such actions in consultation with the authorized US EPA officer.

18. Upon the occurrence of any incident during performance of the activities described above that BHMC is required to report pursuant to Section 103 of CERCLA, 42U.S.C.§9603, or Section 304 of EPCRA, 42U.S.C.§ 11004, BHMC is required to also immediately notify the authorized US EPA officer orally.

19. The "authorized US EPA officer" for the purposes of immediate oral notifications and consultations is the US EPA RPM, or the US EPA Emergency Response Unit, Region 10 at 206-553-1263(if the RPM is not available).

20. For any incident covered above, BHMC is required to: (1) within 14 days after the onset of such incident, submit a report to US EPA describing the actions or incidents that occurred and the measures taken, and to be taken, in response there to; and (2) within 30 days after the conclusion of such incident, submit a written report to US EPA describing all actions taken in response to such incident.

BHMC is required to perform all actions required by its Settlement Agreement with US EPA in accordance with all applicable local, state, and federal laws and regulations, except as provided in Section 121(e)of CERCLA, 42U.S.C.§9621(e), and 40C.F.R.§§300.400(e). All on-Site actions required pursuant to BHMC's Settlement Agreement with US EPA shall attain applicable or relevant and appropriate requirements ("ARARs") under federal environmental or state environmental or facility siting laws as set forth in the 1992 Record of Decision and the 2001 Record of Decision Amendment.

17.4 FUTURE ENVIRONMENTAL AND SOCIAL ACTIVITIES

Environmental, Social and Health Impact Assessment (ESHIA) – BHMC plans to conduct a full voluntary ESHIA based on its mine plan and business model that includes deliberate focus on high levels of sustainability. This focus includes:

- Environmental Impact – Reduction of long-term water treatment costs by greater than 75% versus the status quo. This includes a range of initiatives including sealing AMD producing stopes with low porosity paste and source control projects.
- Environmental Impact – Net Positive Impact on biodiversity
- Emissions – Scope 1 and Scope 2 carbon neutrality
- Social Impact – Workforce training for residents of Shoshone, Kootenai and Benewah Counties
- Social Impact – Greater than 80 percent of new job to local residents
- Social Impact – Compensation for full-time employees that is significantly higher than the median household income for Shoshone County
- Social impact – local economic diversification investment
- Social impact – Employee equity award plan in place by 2023
- Governance – Labor representation on the Board of Director of the Mining Company
- Governance – Global Reporting Initiative (GRI) compliance by 2023

- Governance – Sustainability Accounting Standards Board and ISO 14001, 14004, 14005 compliant by 2023

The ESHIA study is anticipated to be completed in Q1 of 2024. The intent of conducting a voluntary ESHIA is to establish a broad spectrum of detailed baseline conditions against which stakeholders and the Company can measure impacts and can generate better informed programming in the future to maximize the positive impacts of the Mine's activities and mitigate any negative impacts.

Many of the ongoing environmental and sustainability activities are intended to continue far into the future. Efforts such as source control aiming at reducing the infiltration of water into the mine will likely take many forms over time but will continue to some degree for many years. Similarly, water sampling and testing is likely to be only one form of environmental testing that will be a regular recurring activity. These data will provide both insights into new activities that should and will be undertaken in the future and will allow BHMC and all of its stakeholders to measure the impacts of BHMC's environmental management activities. Provision of this data to our stakeholder community will be a core component of communication, development of trust and broad participation in inclusive decision-making.

A paste backfill plant is included in the mine restart plan. This will be a core component of water treatment cost reduction and general mitigation of environmental impacts of past mining activities. The location and size of the stopes in the upper east side of Bunker Hill Mine are well understood by the BHMC Water Management Team. These are the stopes where most of the AMD in the mine is produced. BHMC anticipates that AMD reduction from paste production and stope sealing will begin to register in a meaningful way as early as 2025.

17.5 TAILINGS DEPOSITION

As part of the historic data digitization program, as well as through current surveying for mine-design, there have been numerous voids identified underground at Bunker Hill. A large portion of these open excavations, mainly located on the east side of the mine between the 4-level and 6-level have been LiDAR surveyed. Historically, mining operations at Bunker were a mix of methods, but a large portion of early mining activity on the lower-angle structures accessible between the 9-level and surface were open-stoped without the use of backfill. Continued mine development with the current plan will work to explore and develop access to the existing void spaces adjacent to future mining activity. Under the current plan and specifications of both thickened tailings and binder-added (paste) fill, there is enough identified void space underground to support the deposition of all planned mine processing wastes.

17.6 PERMITS REQUIRED FOR FUTURE MINING ACTIVITIES

The land package associated with Bunker Hill Mine consists of approximately 400 patented claims, of which approximately 35 include associated surface rights. The Mine also owns surface parcels unrelated to the federal land-patent process. All of the Mine property is located in Shoshone County, Idaho.

Some of the parcels have existing buildings on them that will not be used in mining operations. There was a milling parcel previously associated with the Mine; however, though BHMC has purchased that parcel from Placer Mining Corp, it will not be used in the future for milling. The current mine plan envisions surface operations for crushing, grinding and processing. Furthermore, the mine plan also deposits all tailings underground, which will remove the need for permitting of a tailing storage facility. Development waste rock will be stored on existing mine disturbance areas.

The State of Idaho has several statutory permitting requirements for surface mining and dredge, placer mining. Unlike surface or placer mining, BHMC intends to perform underground hard rock mining activities. Idaho statues do not independently regulate this type of activity on private lands for historical mine site where less than 50% of the ground will be disturbed.

At a local level, the Mine will be regulated by planning, zoning and building ordinances established by Shoshone County. These ordinances will impose use restrictions for the property, as well as building code requirements for future construction and/or renovations of existing structures. These codes will be reviewed prior to any construction activities or surface activities.

In addition to other requirements, Shoshone County Zoning ordinances create the Bunker Hill Superfund Site Overlay District ("BD"), which guides and controls "development in the area known as the federally created Bunker Hill Superfund Site by ensuring compliance with the environmental health code ("EHC") and institutional control program ("ICP") developed by the BD district. Monitoring compliance with and enforcement of EHC and ICP shall be the responsibility of the Panhandle Health District 1." Shoshone County Ordinance 9-4-17. ICP oversight generally consists of ensuring that the protective barriers put in place to hold the old mining contaminants are not disturbed and ensuring that construction activities would not expose these contaminants (or others) to the environment. Thus, certain permits may be required by the Panhandle Health District prior to any site disturbance activities at the surface of the Mine.

In terms of federal permitting requirements, the Mine activities will wastewater and other mine drainage. The Clean Water Act ("CWA") requires all point source discharges from mining operations, including discharges from associated impoundments, be authorized under a National Pollutant Discharge Elimination Systems (NPDES) permit from the US EPA or, in the case of Idaho now, an Idaho Pollutant Discharge Elimination Systems (IPDES) permit from the Idaho Department of Environmental Quality. BHMC is required to obtain an NPDES/IPDES permit by May 15, 2023 in accordance with its Settlement Agreement with US EPA. Until May 15, 2023, BHMC will be allowed to continue to discharge water to the Central Treatment Plant where it will be charged by US EPA for water treatment services that meet existing discharge standards.

This permitting analysis relies on the following assumptions:

- Milling uses conventional froth flotation technology.
- Concentrates produced will be shipped off site and sold to an appropriate smelter facility.
- No public lands are involved in any element of the restart of the project.
- No jurisdictional Waters of the U.S. will be impacted.
- No instream work is required nor any impacts to non-jurisdictional wetlands.

17.6.1 ENVIRONMENTAL PERMITS

The project has a long history of operations and commenced prior to any formal regulatory framework being in place for federal, state, and local agencies. Since all lands are patented mining claims, it eliminates federal land manager permitting and/or National Environmental Policy Act (NEPA). The project will only be subject to the State of Idaho mining regulations.

17.6.1.1 IDAHO DEPARTMENT OF LANDS

17.6.1.2 MINE LAND RECLAMATION PERMITS

Idaho Department of Lands (IDL) regulates surface mining and surface effects of underground mining. The authority to regulate surface effects of underground mining is a more recent change in the regulations. As such, the project is grandfathered and is not subject to the reclamation and bonding of surface disturbance associated with underground mining. It should be noted, however, that the rule will apply when the project expands disturbance. More specifically, IDAPA 20.03.02(b)(iv) states "Underground mines that existed prior to July 1, 2019 and have not expanded their surface disturbance by 50 percent more after that date." Bunker Hill Mine will not expand surface disturbance by more than 50 percent. Under the current Future Operating Plan and to the extent known, there are no mine closure or reclamation bond requirements that will materially affect operations at the Bunker Hill Mine.

17.6.2 IDAHO DEPARTMENT OF WATER RESOURCES

17.6.2.1 TAILINGS IMPOUNDMENTS/DAMS

Mine tailings impoundment structure, which is or will be more than 30 feet in height for purposes of storing mine tailings slurry, are subject to the Mine Tailings Impoundment Structure rules (IDAPA 37.03.05). Minimum standards are dictated in the rules. Dry stack tailings are not subject to this rule. Since Bunker Hill Mine will deposit tailings underground this permit will not be required.

17.6.2.2 WATER RIGHTS

Any use of surface or groundwater for "beneficial use" is subject to obtaining a water rights that must be obtained from IDWR. Existing water rights have been reviewed for beneficial use and place of use and this analysis confirms that they are properly allocated.

17.6.3 IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY

17.6.3.1 AIR QUALITY PERMIT

An air quality permit (Permit to Construct) will be required for any crushing equipment, silos (lime silos, etc.), generators, petroleum fired equipment (lab furnaces, etc.) and other equipment/facilities that have the potential to emit any regulated pollutant or designated hazardous air pollutant.

17.6.3.2 UNDERGROUND INJECTION CONTROLS

Placement of tailings back underground are authorized by rule as part of mining operations. They are therefore exempt from the groundwater quality standards and permitting requirements but are limited to injection of mine tailings only. The implementation of backfilling cannot affect beneficial use or exceed groundwater standards. If this may occur, the Director has the regulatory flexibility to require a project to obtain a UIC permit. There are no plans for this to occur at the bunker Hill mine.

17.6.3.3 STORMWATER PERMIT

The project will be subject to stormwater permitting if it were to increase its current disturbance footprint by over 50%. There are no plans under planned mine operations that will exceed this limit in this report.. At the time of this analysis, US EPA still maintains authority of the Multi-sector Industrial Stormwater Project; however, IDEQ has taken over the program on July 1, 2021.

17.6.4 IDAHO HEALTH DEPARTMENT

17.6.4.1 POTABLE WATER SUPPLY

If the project were to provide potable water to the project from water well or surface water, BHMC would be subject to obtaining approval for the public drinking water system. The provision is subject to providing water to more than 25 people. If water is supplied from a municipality, there is no requirement to apply for this permit. Municipally supplied water connections are planned for surface building modifications in the Kellogg yard.

18 CAPITAL AND OPERATING COSTS

Much of the vast underground workings, surface portals, mine office, maintenance complex, and 9-level shaft access points for the Bunker Hill Mine remain intact. The Kellogg Tunnel (KT) portal adjacent to the surface infrastructure at the Kellogg mine yard connects horizontally by rail to the underground hoisting facilities on 9-level, approximately 9,500 feet to the south. Water seepage above the 9-level drains naturally out of the KT, laterals below the 9-level must be dewatered prior to development and production. All water is collected at the portal and sent to the CTP for treatment. The underground workings are extensive, and only the infrastructure germane to the reopening of the mine is described in this report. Several shafts and raises connect to the 9-level and its underground infrastructure is central to the mine and home to the #1 and #2 hoistrooms, material bins, substations and shops. Shafts at the mine are inclined rail; the #1 being the production shaft and #2 materials and personnel. The mine is currently accessed by the KT from the Kellogg mine yard and the 5-level Russell portal at the Wardner mine yard located just above the town of Wardner to the south. The Newgard Ramp will be extended from the 5-level portal down to the 15-level and serve as personnel, materials and supplies access as well as the main haulage out of the mine. Mine capital and operating costs were developed by Minetech and are based on the current contractors, Coeur d ‘Alene Mine Contracting, LLC (CMC), rates. Efficiency factors are based on Idaho and other similar operating mines as well as the work CMC is currently performing driving the Newgard ramp. Milling and process capital and operating costs were developed by Barr Engineering and Bunker Hill with YaKum Consulting providing the process and metallurgical test work. Patterson & Cooke provided design and capital cost estimates for the hydraulic backfill facilities with Bunker Hill.

Bunker Hill has as of August 31, 2022 purchased the Teck Pend Oreille process plant, much of their electrical gear, and other miscellaneous equipment including fans, spare parts inventories, power cable, etc. Most of the Pend Oreille equipment has been relocated to the Kellogg yard. The Pend Oreille mine is going through closure and Bunker will purchase more equipment as it becomes available. Bunker has also purchased or is leasing to purchase several pieces of underground equipment. Owned equipment is not included in the capital equipment estimate.

Capital and Operating cost estimates were prepared in accordance with §229.1302 (Item 1302 of Regulation S-K). Capex and Opex costs and assumptions are detailed in Sections 13 – Mining Methods; 14 – Recovery Methods and; 15 – Project Infrastructure. Contingency was applied to task groups based on the estimate quality. The Company has already either purchased or received pricing quotations and contracts in place for a majority of the Capital Development and Capital Mobile Equipment items allowing for a 5% contingency to be assigned. To reflect the current state of engineering on the process plant and paste backfill plant, as well as discussions with engineering, procurement and construction management (EPCM) groups, 15% and 10% contingencies were applied to Capital Infrastructure and EPCM and Other Construction Allowances respectively. Note that the Avista $1M payment for substation and line power improvement includes contingency on the up-front capital cost with capital credits against operating cost in later years or effectively a zero % contingency.

18.1 CAPITAL COSTS

The utilization of the existing underground infrastructure allows for a restart of the mine with a relatively low initial capital investment. Annual and Life-of-Mine (LOM) capital is summarized in Table 18-1Bunker Hill Capital Expenditure Schedule. A variable contingency was applied to all capital costs averaging 8% over LOM. With the acquisition of the Pend Oreille process plant equipment, current level of mill and process plant engineering and known contractor mining unit costs, the QP for this section of the TRS believes the above stated contingency value to represent the current state of the Project. The overall expected accuracy of the estimate is +/- 20%.

Table 18-1 Bunker Hill Capital Expenditure Schedule

Bunker Hill Mining Corporation Prefeasibility Study (PFS) $USD	LOM - Total (Year 1- LOM)	2022	2023	2024	2025	2026	2027	2028
Ramp & Lateral Development/Rehab		2,972,970	3,396,797	9,550,141	11,436,323	10,383,194	22,710,890	4,035,145
Ventilation Development and Pumps				50,000	1,040,208	436,046	1,079,456	121,512
Vertical Development					180,000	720,000	1,320,000	780,000
Capital Development	**70,212,683**	**2,972,970**	**3,396,797**	**9,600,141**	**12,656,531**	**11,539,240**	**25,110,346**	**4,936,657**
Contingency	3,510,634	148,649	169,840	480,007	632,827	576,962	1,255,517	246,833
One Additional Drill Jumbo	250,000			250,000				
Two Bench Drills	500,000		250,000	250,000				
Loader (in transit lease to buy)	300,000	20,000	240,000	40,000				
Loader (Teck)	150,000		150,000					
Three Additional UG Trucks	540,000			180,000	180,000	180,000		
Ancillary UG Support Equipment	326,700	9,900	49,500	59,400	59,400	59,400	59,400	29,700
Telehandler - Surface	175,000	175,000						
UG Transport	120,000	60,000		60,000				
Light Vehicals	130,000			130,000				
Capital Mobile Equipment	**2,491,700**	**264,900**	**689,500**	**969,400**	**239,400**	**239,400**	**59,400**	**29,700**
Contingency	124,585	13,245	34,475	48,470	11,970	11,970	2,970	1,485
Primary Power Feed - Avista	330,000	410,000	1,013,000	(297,000)	(297,000)	(297,000)	(202,000)	
UG Power Distribution - Main	270,000	30,000	240,000					
Backfill Plant	5,190,700		5,190,700					
Backfill Distribution	1,415,200		1,015,200		100,000	100,000	200,000	
Mill and Process	26,764,000	4,300,000	22,464,000					
Utilities, Comms, Fans, Compressors	880,000	340,000	50,000	265,000	225,000			
Building Upgrades	325,000	75,000	250,000					
Capital Infrastructure	**35,174,900**	**5,155,000**	**30,222,900**	**(32,000)**	**28,000**	**(197,000)**	**(2,000)**	**0**
Contingency	4,855,690	730,500	4,145,490	(3,200)	2,800	(19,700)	(200)	0

Other Engineering Allowance	100,000			100,000				
Permitting	25,000	25,000						
Technical Services Equipment	150,000	50,000	100,000					
Mine Safety	160,000	40,000	120,000					
Geotechnical Engineering	150,000		150,000					
Rentals, Offices,	196,389	62,677	133,712					
EPCM Process	3,582,044	1,155,282	2,426,762					
EPCM Backfill	1,039,313	302,450	736,863					
Bunker Hill Staff Allocated	1,529,412	470,588	1,058,824					
EPCM Other Construction Allowances	**6,932,158**	**2,105,998**	**4,726,160**	**100,000**	**0**	**0**	**0**	**0**
Contingency	**693,216**	**210,600**	**472,616**	**10,000**	**0**	**0**	**0**	**0**
Mine Development	200,000				100,000	50,000	50,000	
Mobile Equipment	600,000			125,000	125,000	125,000	225,000	
Mine Infrastructure	200,000				100,000	50,000	50,000	
Process Engineering	600,000			150,000	150,000	150,000	150,000	
Surface Facilities	100,000		50,000			50,000		
Dewatering	120,000		30,000		30,000	30,000	30,000	
Capital Sustaining	**1,820,000**	**0**	**80,000**	**275,000**	**505,000**	**455,000**	**505,000**	0
Contingency	182,000	0	8,000	27,500	50,500	45,500	50,500	0
Total Capital	**116,631,441**	**10,498,868**	**39,115,358**	**10,912,541**	**13,428,931**	**12,036,640**	**25,672,746**	**4,966,357**
Capital Contingency	**9,366,125**	**1,102,993**	**4,830,421**	**562,777**	**698,097**	**614,732**	**1,308,787**	**248,318**
Total Capital W/Cont, $USD	**125,997,566**	**11,601,861**	**43,945,778**	**11,475,318**	**14,127,028**	**12,651,372**	**26,981,533**	**5,214,675**

Credits are shown for Bunker funded Avista power upgrades which are credited back to BHMC.

LOM mine capital improvements include the following:

- Connect the 5-level Warder portal Newgard ramp to the 9-level then down to 15-level
- New ramp and raise level access
- All rubber tire access
- Ventilation system including fans, controls, raise manways

- Upgrade site wide main power distribution (Avista Utilities)
- Install new mine wide power distribution down from Wardner – new high voltage cable is already installed in the KT
- Install Sentinel communications from the surface to the main underground facilities
- Install a hydraulic backfill plant at the Wardner 5-level yard; allows efficient access to cement and reagents
- Install a primarily pumped and gravity backfill distribution system to active and historical mining areas
- Construct new mill building and processing facility at the Kellogg mine yard

18.2 OPERATING COSTS

Mine operating costs are based on experienced local contract labor and Bunker Hill owed equipment for mining operations. A zero-based efficiency and cost estimate was completed based on the current underground contractors' rates and current material costs. Electrical power costs are scheduled based on projected motor loads applying power factor correction, and applicable Avista Utilities rates for all projected mine, milling and site operations. Mining costs are based on CF (3% of tonnage) techniques and LHOS (87% of tonnage). Power usage and consumption has been divided between the mine, mill and surface yards. The mine carries the power cost for the hydraulic backfill plant. Site G&A includes power costs for site mine offices, area lighting and changeroom facilities.

Mill operating costs are scheduled. Mine site general and administrative (G&A) costs are determined based on anticipated staffing levels and compensation compatible with area salaries. Mill power consumption is based on 1,800 tons per day.

Table 18-2 LOM and Annual Mine Operating Costs

Bunker Hill Mining Corporation Prefeasibility Study (PFS) $USD	LOM - Total (Year 1- LOM)	2022	2023	2024	2025	2026	2027	2028
Definition Drilling	1,744,484	-	37,358	319,681	326,157	337,853	349,575	373,859
LHOS Stope Development	39,947,480	-	2,286,898	6,969,536	12,652,419	7,631,406	5,458,492	4,948,728
LHOS Stope Production	73,990,906	-	1,165,584	14,868,167	10,660,459	15,018,032	16,134,870	16,143,793
Cut and Fill Production	4,974,182	-	-	-	-	-	-	4,974,182
Processing Cost	70,978,124	-	1,632,267	13,766,489	13,842,115	13,842,115	13,842,115	14,053,023
Mine G&A incl. Power	32,380,103	798,412	3,611,335	6,720,190	7,016,217	7,046,596	7,046,596	5,270,914
Total Operating Cost, $USD	229,145,435	**798,412**	**8,733,442**	**42,644,063**	**44,497,367**	**43,876,002**	**42,831,649**	**45,764,500**

Table 18-3 General Administrative and Site Indirect Costs

Bunker Hill Mining Corporation Prefeasibility Study (PFS) $USD	LOM - Total (Year 1- LOM)	2022	2023	2024	2025	2026	2027	2028
$USD								
Bunker Hill Staff G&A	15,525,588	414,412	1,881,176	2,940,000	2,940,000	2,940,000	2,940,000	1,470,000
Mining Indirects	268,838		6,182	52,142	52,429	52,429	52,429	53,227
Overland Ore Haul (off road)	11,593,629		266,616	2,248,631	2,260,983	2,260,983	2,260,983	2,295,433
Site Facilities Power (Excl. Mine/Mill)	140,000	8,000	24,000	24,000	24,000	24,000	24,000	12,000
Water Treatment (CTP)	4,460,000	320,000	900,000	720,000	720,000	720,000	720,000	360,000
Dewatering Operation and Maintenance	336,048		7,728	65,178	65,536	65,536	65,536	66,534
Total Site G&A, $USD	**32,324,103**	**742,412**	**3,085,702**	**6,049,951**	**6,062,948**	**6,062,948**	**6,062,948**	**4,257,194**

Bunker Hill direct-hire staffing for the overall mine and process operations, and the indirect contractor overhead and maintenance for the mine were scheduled based on estimated staffing levels. Only mining will be performed with contract labor. Contingency was not added to estimated operating costs and the level of accuracy is estimated at +/-15%.

Table 18-4 Mine Operations, Engineering, Geology and Overhead Staffing

Position	Number	Base Rate $/hr/person	Base Salary $/yr/person	Burden Overhead	Overtime Allowance	Annual Cost per Person	Annual Cost
Mine Manager	1		175,000	61,250	-	236,250	236,250
Safety Trainer	1		65,000	22,750	-	87,750	87,750
Health/Safety Supervisor	1		90,000	31,500	-	121,500	121,500
Sr Engineer	1		120,000	42,000	-	162,000	162,000
Mine Engineer	2		90,000	31,500	-	121,500	243,000
Sr Geologist	1		110,000	38,500	-	148,500	148,500
Mine Geologist	4		80,000	28,000	-	108,000	432,000
HR Manager	1		135,000	47,250	-	182,250	182,250
Purchaser	1		60,000	21,000	-	81,000	81,000
Controller	1		70,000	24,500	-	94,500	94,500
Geology Techs	2		65,000	22,750	-	87,750	175,500
Enviro Supervisor	1		84,000	29,400	-	113,400	113,400
Water specialist	1	30	62,400	21,840	3,120	87,360	87,360
Enviro Tech	1	25	52,000	18,200	2,600	72,800	72,800
Payroll	1	21	43,680	15,288	2,184	61,152	61,152
Surveyor	2	30	62,400	21,840	3,120	87,360	174,720
Survey Assistant	2	25	52,000	18,200	2,600	72,800	145,600
Warehouse	2	30	62,400	21,840	3,120	87,360	174,720
Security Night Watch	2	25	52,000	18,200	2,600	72,800	145,600
Total	28						2,939,602

Table 18-5 Mill Operations and Overhead Staffing

Position	Number	Base Rate $/hr/person	Base Salary $/yr/person	Burden Overhead	Overtime Allowance	Annual Cost per Person	Annual Cost
Process Manager	1		190,000	66,500	-	256,500	256,500
Process Managers Clerk	-	21	58,000	20,300	-	78,300	-
Operations General Foreman/Superintende	-		125,000	43,750	-	168,750	-
Operations Shift Supervisor	4		105,000	36,750	-	141,750	567,000
Operator - Control Room	4	35	72,800	25,480	3,640	101,920	407,680
Operator - Primary Crushing	2	30	62,400	21,840	3,120	87,360	174,720
Operator - Secondary Crushing	4	30	62,400	21,840	3,120	87,360	349,440
Operator - Tertiary Crushing	-	30	62,400	21,840	3,120	87,360	-
Operator - Grinding / Regrinding	4	30	62,400	21,840	3,120	87,360	349,440
Operator - Flotation	4	30	62,400	21,840	3,120	87,360	349,440
Operator - Concentrate Thickening	2	30	62,400	21,840	3,120	87,360	174,720
Operator - Reagents & Utilities	2	28	58,240	20,384	2,912	81,536	163,072
Maintenance Gen Foreman/Supt	1		125,000	43,750	-	168,750	168,750
Maintenance Planner	1		95,000	33,250	-	128,250	128,250
Mechanics	6	38	79,040	27,664	3,952	110,656	663,936
Electricians	4	38	79,040	27,664	3,952	110,656	442,624
Clerk	-	21	43,680	15,288	-	58,968	-
Chief Geotechnical Engineer	-		140,000	49,000		189,000	-
Chief Metallurgist	1		130,000	45,500	-	175,500	175,500
Entry level metallurgist	1		90,000	31,500	-	121,500	121,500
Metallurgist	-		105,000	36,750	-	141,750	-
Metallurgical Technician	4	20	41,600	14,560	2,080	58,240	232,960
Chief Chemist	-		125,000	43,750		168,750	-
Mineralogist	-		120,000	42,000		162,000	-
Laboratory Supervisor	-		80,000	28,000		108,000	-
Chemist	-		94,000	32,900		126,900	-
TOTAL	**48**						**5,051,692**

Table 18-6 Indirect Contract Supervision, Maintenance and Support Staffing

Bunker Hill Mining Corporation Prefeasibility Study (PFS) - Bunker Hill Mine		Annual		Labor Cost	Total
Contract Supervision, Maint. and Support Labor		Hours		$/Hour	$/Year
Shift Supervisor	4	1898	Reg	$100.00	$759,200
1/shift; rotating crews	4	104	OT	$150.00	$62,400
Electricians	8	1898	Reg	$98.00	$1,488,032
2/shift; rotating crews	8	104	OT	$147.00	$122,304
Maintenance Personnel	20	1898	Reg	$85.00	$3,226,600
5/shift; rotating crews	20	104	OT	$127.50	$265,200
Nipper	12	1898	Reg	$70.00	$1,594,320
3/shift; rotating crews	12	104	OT	$105.00	$131,040
Total Annual Cost					**$7,649,096**
Average Daily Cost					**$20,956**
Note: At full Production after ramp-up					

19 ECONOMIC ANALYSIS

The economic analysis is based on an 1,800 stpd mine plan utilizing cut-and-fill and long hole open stoping with backfill. Metal recoveries are based on current metallurgical test work and historical mill operational data. Silver will be recovered in the lead concentrate and any silver reporting to the zinc concentrate is considered non-payable. This is consistent with typical smelter treatment charges and agreements. Projected long term metal prices of $1.25/lb zinc, $0.95/lb lead and $21.50/oz silver were used to calculate revenues for the full life of mine. Escalation was not applied to operating or capital costs other than a slight operating cost increase later in the mine life to reflect operating from the deeper-mine levels.

An initial capital investment of $55 million (including contingency) is required to restart the mine. Bunker Hill is projected to generate approximately $25 million of annual average free cash flow over an initial 5-year mine life based on the current Probable reserves. It will produce over 316 million pounds of zinc, 146 million pounds of lead, and 3 million ounces of silver at an all-in sustaining cost (“AISC”) of $0.77 per payable pound of zinc (net of by-products).

The project is expected to generate pre-tax free cash flow of $137 million over its 5-year mine life and $129 million on an after-tax basis, excluding the Initial Capex period and before consideration of projected land and salvage sale proceeds of $12 million at the end of the mine life. The Company’s goal is to significantly increase the free cash flow by multiple optimization work streams including mill and process throughput and recovery, resource expansion and exploration.

19.1 TAXES

A US mining-focused tax consulting firm prepared the U.S. federal and Idaho state tax computations based on the Internal Revenue Code of 1986, as amended and the regulations thereunder and the Idaho Revenue and Taxation Statute – Title 63 as in effect as of April 10, 2021. The tax elections assumed and incorporated in the tax computation are the Bunker Hill:

1. is a single mine and property under Section 614.
2. will expense exploration expenditures as incurred
3. will elect to treat mine development costs as incurred as deferred expenses under Section 606(b).
4. will elect out of Section 168(K) bonus depreciation
5. will depreciate long-lived assets under the unit of production basis under Section 168(f)(1) and other assets will be depreciated under MACRS in accordance with Rev. Proc. 87-56.

(1) And all metal sales will be delivered outside of the United States and are therefore eligible for the FDII deduction under Section 250.

Property taxes and the Idaho Mine License tax are included as operating costs. Idaho Mine License tax is 1% of taxable mine income less depletion expense.

19.2 ROYALTIES

To date, Bunker Hill has been advancing development of the mine through funding obtained from a number of sources, including through its $66 million project financing package with Sprott Private Resources Streaming and Royalty Corp. ("Sprott" or "SRSR"). This package consists of four instruments:

- An $8 million Royalty Convertible Debenture, which is convertible into a 1.85% royalty on gross revenue from the Bunker Hill Mine at the option of the holder until the earlier of the maturity date of July 7, 2023 or such time that the multi-metals Stream is advanced (see below). A lower 1.35% rate applies to production from certain areas outside the current resource)

- A $6 million Series 1 Convertible Debenture, which is convertible into common shares of Bunker Hill until the maturity date of March 31, 2025

- A $15 million Series 1 Convertible Debenture, which is convertible into common shares of Bunker Hill until the maturity date of March 31, 2025

- A $37 million multi-metals Stream, which is envisaged to include a sale of 10% all payable metals from the Bunker Hill Mine at 20% of applicable market prices until a certain minimum quantity of metal sales is met, at which point it will reduce to a 2% rate thereafter

As of September 2022, the Royalty Convertible Debenture, Series 1 Convertible Debenture, and Series 2 Convertible Debenture had closed, with $29 million advanced from SRSR; the $37 million multi-metals Stream had not been advanced.

The Prefeasibility Study economic analysis does not include the impact of the gross revenue royalty that would result from conversion of the Royalty Convertible Debenture, as such a royalty on the Bunker Hill Mine does not exist as of the date of this report nor can there be any assurance that a conversion of the Royalty Convertible Debenture will take place. Similarly, there can be no assurance of closing of the multi-metals Stream and as such, no impact from the Stream have been factored into the economic analysis.

As such, in summary all outstanding obligations from the Royalty Convertible Debenture, Series 1 Convertible Debenture, and the Series 2 Convertible Debenture are treated as corporate debt and not included in the economic analysis of the Prefeasibility Study.

Table 19-1 Bunker Hill Project Economic Summary

Year	Initial Capex	1	2	3	4	5	TOTAL	ANNUAL AVERAGE
Metal Prices								
Zinc ($/lb)	1.5	1.4	1.3	1.25	1.25	1.25	1.29	1.29
Lead ($/lb)	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Silver ($/oz)	22	22	22	21.5	21.5	21.5	21.7	21.7
Mine plan								
Ore mined (kt)	77	652	655	655	655	665	3,360	657
Zinc grade (%)	5.90%	5.60%	4.70%	5.70%	5.70%	5.90%	5.50%	5.50%
Lead grade (%)	2.10%	2.40%	2.70%	2.90%	2.40%	1.90%	2.50%	2.50%
Silver grade (oz/t)	0.5	0.7	1.3	1.4	1.2	0.8	1.1	1.1
Zinc eq grade (%)	7.70%	8.00%	8.10%	9.40%	8.80%	8.20%	8.50%	8.50%
Production								
Zinc concentrate (t)	6,671	53,504	44,852	54,997	55,061	57,909	272,995	53,265
Lead concentrate (t)	2,091	20,945	23,577	25,078	20,955	16,605	109,251	21,432
Zn grade - Zn conc (%)	58.00%	58.00%	58.00%	58.00%	58.00%	58.00%	58.00%	58.00%
Pb grade - Pb conc (%)	67.00%	67.00%	67.00%	67.00%	67.00%	67.00%	67.00%	67.00%
Ag grade - Pb conc (oz/t)	14.4	18.6	31.5	30.1	31	27.4	27.6	27.7
Zn prod. - Zn conc (klbs)	7,738	62,065	52,029	63,796	63,871	67,174	316,674	61,787
Pb prod. - Pb conc (klbs)	2,802	28,067	31,593	33,605	28,080	22,251	146,397	28,719
Ag prod. - Pb conc (koz)	30	390	742	754	649	455	3,020	598
Zinc eq produced (klbs)	9,954	87,233	87,679	102,310	96,375	91,909	475,460	93,101
Cost metrics								
Mining ($/t)		35	38	37	35	41	37	37
Processing ($/t)		21	21	21	21	21	21	21
G&A ($/t)		9	9	9	9	6	9	9
Opex - total ($/t)		65	68	67	65	69	67	67
Sustaining capex ($/t)		18	22	19	41	8	21	21
Cash costs: by-prod. ($/lb Zn payable)		0.61	0.42	0.36	0.45	0.64	0.5	0.5
AISC: by-prod. ($/lb Zn payable		0.82	0.74	0.59	0.95	0.73	0.77	0.77
FCF & Valuation ($000's)								
Zinc revenue		73,857	57,492	67,784	67,863	71,373	338,368	67,674
Lead revenue		25,330	28,513	30,328	25,342	20,081	129,595	25,919
Silver revenue		7,900	15,515	15,406	13,256	9,260	61,337	12,267
Gross revenue		107,087	101,520	113,518	106,461	100,714	529,300	105,860
TC - Zinc conc		-16,257	-11,138	-13,657	-13,673	-14,380	-69,105	-13,821
TC - Lead conc		-3,698	-4,162	-4,428	-3,700	-2,932	-18,919	-3,784
RC - Lead conc		-449	-882	-896	-771	-538	-3,535	-707
Land freight		-2,193	-2,019	-2,360	-2,239	-2,192	-11,002	-2,200
Net smelter return		84,491	83,319	92,178	86,079	80,672	426,739	85,348
Mining costs		-22,828	-24,592	-23,971	-22,927	-27,454	-121,772	-24,354
Processing costs		-13,766	-13,842	-13,842	-13,842	-14,053	-69,346	-13,869
G&A costs		-6,050	-6,063	-6,063	-6,063	-4,257	-28,496	-5,699
EBITDA		41,847	38,822	48,302	43,247	34,908	207,126	41,425
Sustaining capex		-11,475	-14,127	-12,651	-26,982	-5,215	-70,450	-14,090
Initial capex	-54,853						-54,853	-
Land & salvage value						12,281	12,281	12,281
Pre-tax free cash flow	-54,853	30,372	24,695	35,650	16,266	41,974	94,103	29,791
Taxes	-511	-1,394	-1,382	-2,218	-1,155	-1,224	-7,884	-1,475
Free cash flow	-55,364	28,978	23,313	33,432	15,111	40,750	86,219	28,317
NPV (5%)	62,826							
NPV (8%)	51,813							
IRR (%)	36.00%							
Payback (years)	2.1							

(1) Includes zinc produced in zinc concentrate, lead and silver produced in lead concentrate.
(2) Life of mine ("LOM") includes initial capital expenditure.
(3) Annual Average is the average of years 1-5 and does not include initial CAPEX
(4) Cost Metrics and FCF & Valuations associated with production under the Initial Capex period are reflected in the Initial Capex and Free Cash Flow values at the bottom of the Initial Capex column.

(A) Initial capex period is expressed on a 16-month basis; Years 1-5 are expressed on a 12-month basis.
(B) All metrics expressed on a 12-month basis, beginning after the 16-month initial capex period.

Note: all figures expressed in USD 000's unless otherwise stated. Historic water treatment cost recovery liabilities of $17,000,000, and accounts payable for historic water treatment by the EPA, are considered corporate costs and not included in this economic analysis.

As shown in Table 19-1, based on these free cash flow estimates, the financial model indicates an IRR of 36% with a 2.1-year payback and a net present value (NPV) of approximately $63 million at a 5% discount rate, or $52 million at an 8% discount rate. A 5% discount rate is often utilized with precious metals projects, while an 8% discount rate is often used with base metals projects. Lower discount rates are also typically associated with lower risk jurisdictions. Given the polymetallic nature of the Bunker Hill Mine, the historic and future importance of silver to the project's economic value, the low-risk jurisdiction of Idaho, USA, and the low interest rate environment as of the date of this report, it is helpful to understand the project valuation for both a 5% and 8% discount rate.

19.3 SENSITIVITIES

Table 19-2 below summarizes the after-tax sensitivities of NPV (8% discount rate) and IRR, with respect to metal prices and costs.

Table 19-2 Sensitivity Analysis

	Metal Prices							Operating & Capital Costs						
			Zinc Price ($/lb)							Operating Costs (+/- %)				
			-20%	-10%	-	10%	20%			-20%	-10%	-	10%	20%
NPV (8%) ($M)	Lead Price ($/lb)	-20%	-7	13	32	51	68	Total Capital Costs (+/- %)	-20%	102	87	72	56	40
		-10%	4	23	42	60	78		-10%	92	77	62	46	30
		-	14	33	$\boxed{52}$	69	87		-	82	67	$\boxed{52}$	36	19
		10%	24	43	61	78	96		10%	72	57	42	25	9
		20%	34	53	70	87	105		20%	62	47	31	15	-1
			Zinc Price ($/lb)							Operating Costs (+/- %)				
			-20%	-10%	-	10%	20%			-20%	-10%	-	10%	20%
IRR (%)	Lead Price ($/lb)	-20%	4%	16%	26%	35%	44%	Total Capital Costs (+/- %)	-20%	71%	62%	53%	44%	34%
		-10%	10%	21%	31%	40%	49%		-10%	60%	52%	44%	35%	26%
		-	16%	26%	$\boxed{36\%}$	45%	53%		-	51%	44%	$\boxed{36\%}$	28%	19%
		10%	22%	32%	41%	49%	57%		10%	44%	37%	29%	21%	13%
		20%	27%	37%	45%	54%	62%		20%	37%	30%	23%	15%	7%

20 ADJACENT PROPERTIES

Adjacent properties are properties in which the issuer does not have an interest, has a boundary that is proximate to the Property being reported upon and has similar geological characteristics to the Property being reported on. Figure 20-1 shows the adjacent properties contiguous to the Bunker Hill Property.

Figure 20-1 Properties adjacent to Bunker Hill

The mineralized veins of the Crescent Silver Project are located approximately 1.25 miles (2 km) east-southeast of the past-producing Bunker Hill Mine. Crescent Silver Project mineral tenure consists of 1,280 acres (518 ha) of patented mining claims and is contiguous with the Bunker Hill Property.

The following information on the Crescent Silver Project has been taken from the Crescent Silver LLC. website. The Resource Estimate shown in Table 20-1 was summarized from the 2013 NI 43-101 Technical Report and Preliminary Economic Assessment by Pennington and Hartley.

RDA has been unable to verify the information within the Crescent Silver technical report. The information is not necessarily indicative of the mineralization at Bunker which is the subject of this technical report.

The Crescent Silver Project (Pennington and Hartley 2013) currently contains four known major mineralized zones. The mineralized veins of the Crescent Silver Project are typical "Silver Belt" veins, and are composed of siderite, quartz, and various sulfides including pyrite, tetrahedrite, chalcopyrite, arsenopyrite and galena.

Table 20-1 Crescent Silver Project Mineral Resource

Vein	Resource Class	Tons (x 1,000)	Silver		Copper	
			oz/ton	oz (x 1,000)	%	lb (x1,000)
Alhambra	Measured	8.2	18.4	150	0.32	52
	Indicated	101.4	15.5	1,568	0.24	485
	Measured + Indicated	109.6	15.7	1,718	0.25	538
	Inferred	442.4	14.0	6,189	0.19	1,709

Jackson	Measured	2.8	19.6	54	0.87	48
	Indicated	1.4	18.8	26	0.80	22
	Measured + Indicated	4.1	19.3	80	0.85	70
	Inferred	15.3	16.3	248	0.82	250
South	Measured	27.8	23.3	647	0.61	342
	Indicated	59.3	23.4	1,387	0.57	681
	Measured + Indicated	87.1	23.4	2,035	0.59	1,023
	Inferred	526.8	24.1	12,670	0.63	6,602
Total	Measured	38.7	22.0	851	0.57	443
	Indicated	162.1	18.4	2,981	0.37	1,189
	Measured + Indicated	**200.8**	**19.1**	**3,833**	**0.41**	**1,631**
	Inferred	948.5	19.4	19,107	0.43	8,561

The reader is cautioned that the above information is not necessarily indicative of the mineralization on the Bunker Hill Property.

The past-producing Sunshine Mine is located approximately 4 km east-southeast of the Bunker Hill Property. The Sunshine Mine Project mineral tenure consists of 10,377 acres (4,200 ha) of patented and unpatented mining claims and is contiguous with the Bunker Hill Property.

The information presented in Table 20-2 has been summarized from the NI 43-101 Technical Report, Resource Estimate and Preliminary Economic Assessment prepared for Sunshine Silver Mines Corporation by TetraTech and MTB (Bryan et al. 2014). The data contained in the technical report and website has not been originally sourced or verified by RDA. The reader is cautioned that the below information is not necessarily indicative of the mineralization on the Bunker Hill Property.

Table 20-2 Sunshine Mine Mineral Resource Estimate

Resource Class	Tons Diluted	Ag Grade Diluted (g/t)	Ag Contained Ounces	Cu %	Pb %	Zn %
Measured	1,120,000	843	30,300,000	-	-	-
Indicated	1,870,000	752	45,200,000	-	-	-
Measured + Indicated	2,980,000	786	75,500,000	-	-	-
Inferred	8,170,000	842	221,300,000	0.22	0.35	0.02

21 OTHER RELEVANT DATA AND INFORMATION

There is no additional relevant data and information that would make the report understandable and not misleading.

22 INTERPRETATIONS AND CONCLUSIONS

The Bunker Hill Mine is one of the most storied base metal and silver mines in American history. Initial discovery and development of the property began in 1885, and from that time until the mine closed in 1981 it produced over 35.8 M tons (32.5 M tonnes) of mineralization at an average mined grade of 8.76% lead, 4.52 ounces per ton (155 g/t) silver, and 3.67% zinc. The acquisition of the Bunker Hill Mine Project includes existing infrastructure at Milo Gulch, and the majority of machinery and buildings at the Kellogg Tunnel portal level as well as all equipment and infrastructure anywhere underground at the Bunker Hill Mine Complex.

This report demonstrates that the restart of the Bunker Hill mine can reasonably be expected to generate a positive return on investment with an after-tax IRR of 36% based on the reserves presented. It is reasonable to expect the conversion of Inferred resources to Indicated resources and indicated resources to measured resources to continue. Inferred Mineral Resources are considered too geologically speculative to have economic considerations applied to them to be classified as a Mineral Reserve.

The mineralization of the Coeur d'Alene district consists of veins with variable proportions of sphalerite, galena, argentiferous tetrahedrite in either a quartz or siderite gangue. Most silver production has come from the mineral belt south of the Osburn Fault, the western part of which includes the Bunker Hill Mine and is known as the Silver Belt. The deposits are numerous and relatively large with strike lengths up to 984 ft (300 m) with dip lengths of over 3,280 ft (1,000 m). Wall rock alteration associated with veining consists of changes in carbonate mineralogy plus sulfidation and silicification. Pyritization of wall rocks is locally strong. Bleached halos resulting from destruction of hematite by hydrothermal fluids are also characteristic. The mineralization is partly oxidized to a depth of approximately 1,968 ft (600 m).

The Bunker Hill Mine comprises multiple zones of mineralization. Most production has come from structurally controlled zones along the northwest striking and southwest dipping Cate Fault, a splay structure of the Osburn Fault. Mineralization is primarily hosted by quartzites and siltites of the Revett and St. Regis Formations of the Ravalli Group. Mineralization occurs in veins in the footwall rocks of the Cate Fault, and from veins and strata bound mineralization in the hanging wall of the Cate Fault.

RDA is of the opinion that the past production of over 160 million ounces of silver should be investigated with vigorous exploration programs. While base metals are a very important component of the Project, the recent selling prices of silver demand attention. The confirmation drilling program identified intercepts of 10 to 20 ounces per ton of sliver. The J vein and Francis stopes hosted high grade silver mineralization. The near surface historic Caledonia and Sierra Nevada Mines were bonanza grade silver producers in the past. These and other known occurrences of silver must be followed up upon to determine if economic silver occurrences exist on the Bunker Hill Property land package.

This TRS is based on all available technical and scientific data available as of August 29, 2022. Mineral Resources are considered by the QP to meet the reasonable prospects of eventual economic extraction due two main factors; 1) cut-off grades are based on scientific data and assumptions related to the project and 2) Mineral Resources are estimated only within blocks of mineralization that have been accessible in the past by mining operations as well as by using generally accepted mining and processing costs that are similar to many projects in Idaho.

The exploration and development of mineral properties involves risk. There can be no assurance that the exploration program discussed in this TRS will result in additional Mineral Resource Estimates. Numerous factors such as commodity price fluctuations, property tenure, environmental and permitting issues, metallurgical and geotechnical considerations may have a material impact on the Bunker Hill Project.

23 RECOMMENDATIONS

Exploration programs should focus on the definition of additional silver and other base metal resources. Resources that demonstrate the reasonable prospects of eventual economic extraction have been identified within the current mineral resource estimate. Specifically. significant silver mineralization encountered through exploration and past production suggests that these zones should be given as much weight as past Pb and Zn exploration and resource definition programs.

Metallurgical test work should be continued to include full variability testing through various sections of mineralization as development progresses.

Digitization of nearly 100 years of paper maps is constantly being updated. In addition to unlocking the understanding of the geometry of the mineral deposit much of the information describes the mined-out portion of the Project. This will be critical for future mineral resource estimates as mined out voids need to be accounted for.

Continued engineering and design work on the milling, process and backfill plants and systems are recommended. Backfill mix designs should be optimized. Construction level design and equipment bid packages are required to initiate construction and further define project economics and timelines.

Additional geotechnical work is recommended to optimize stope and pillar dimensions, as well as ground support standards. A mine ventilation survey should be completed once the 5 to 6-level breakthrough is completed and main fan installed. Regular ventilation surveys are recommended throughout development and operations.

Successive phases of work are not recommended for the advancement of the project.

Table 23-1 Proposed Phase 1 Work Program to Advance Bunker Hill

Activity	Amount	
Geophysical Interpretation and Additional Geophysics	$	0.05M
Environmental Studies	$	0.03M
Geotechnical Studies	$	0.15M
Mill and Process Plant Engineering	$	1.70M
Hydraulic Backfill and Tailing Placement Engineering	$	0.50M
Total Recommended Budget	**$**	**2.43M**

24 REFERENCES

Farmin, J., 1977. Geologic Research Progress Summary and 1977 Exploration Plans, Bunker Hill Mining internal memo.

Herndon, Stephen D., “Diagenesis and metamorphism in the Revett quartzite (Middle Proterozoic Belt) Idaho and Montana” (1983). Graduate Student Theses, Dissertations, & Professional Papers. 7510.

Hobbs, S. W., A. B. Griggs, R. E. Wallace, and A. B. Campbell, 1965, Geology of the Coeur d’Alene district, Shoshone Co., Idaho: U.S. Geological Survey Professional Paper 478, 139 p.

Idaho Geologic Survey, 2002. Geologic Map of Shoshone County, Open-File Publication. https://www.idahogeology.org/webmap.

Juras, D. S., 1977, Structural Geology of Bunker Hill Mine: Private report for the Bunker Hill Company, 111 p.

Juras, D. and Duff, J., 2020. Geology and Ore Controls at the Bunker Hill Mine, Coeur d’Alene District, Idaho: Private report for the Bunker Hill Company.

Leach, D.L., Hofstra, A.H., Church, S.E., Snee, L.W., Vaughn, R.B., and Zartman, R.E., 1998, Evidence for Proterozoic and Late Cretaceous-Early Tertiary ore-forming events in the Coeur d’Alene district, Idaho and Montana: Economic Geology, v. 93, p. 347-359.

Lydon, J.W., 2007, Geology and metallogeny of the Belt-Purcell Basin, in Goodfellow, W.D., ed., Mineral Deposits of Canada: A Synthesis of Major Deposit Types, District Metallogeny, the Evolution of Geological Provinces, and Exploration Methods: Geological Association of Canada, Mineral Deposits Division, Special Publication No. 5, p. 581-607.

Mathews, K.E., Hoek, E., Wyllie, D.C., et al. 1981. Prediction of Stable Excavations Spans for Mining at Depths Below 1,000 Metres in Hard Rock.

Meyer, R. L. and Springer, D., 1985, Proposal to Explore and Mine the Bunker Hill Property, Shoshone County, Idaho, Private report for Bunker Limited Partnership.

Potvin, Y. 1988. Empirical open stope design in Canada. Ph.D. thesis, University of British Columbia, Vancouver, Canada

U.S. EPA Region 10 CERCLA Docket No. 10-2017-0123. "SETTLEMENT AGREEMENT AND ORDER ON CONSENT FOR RESPONSE ACTION BY BUNKER HILL MINING CORP., PURCHASER, UNDER THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT, 42 U.S.C. 9601-9675"

White, B. G., 1976, Revett stratigraphy of the Bunker Hill mine and vicinity: Private report prepared for The Bunker Hill Co., Dec. 31, 1976, 46 p., 4 plates.

White, B.G., 1994, Shear zone hosted ore deposits of the Coeur d'Alene mining district, Idaho, USA: Geological Society of America Abstracts with Program, v. 26, no.7, p.21.

White, B. G., and D. S. Juras, 1976, Surface geological map, and cross Sections of the Bunker Hill property: Private report for The Bunker Hill Co., December. 1976.

White, B., 2015. "New Concepts for the Exploration of the Bunker Hill Mine: 2015": Private Report for New Bunker Hill Mining Company.

Wilson, S.E., 2020, "Technical Report for the Bunker Hill Mine, Coeur d'Alene Mining District, Shoshone County, Idaho, USA."

Wilson, S.E., 2021, "Technical Report for the Bunker Hill Mine, Coeur d'Alene Mining District, Shoshone County, Idaho, USA."

Wilson, S.E. et al., 2021, "Technical Report and Preliminary Economic Assessment for Underground Milling and Concentration of Lead, Silver and Zinc at the Bunker Hill Mine, Coeur d'Alene Mining District, Shoshone County, Idaho, USA."

Wilson, S.E. et al., 2021, "Technical Report and Preliminary Economic Assessment for Underground Milling and Concentration of Lead, Silver and Zinc at the Bunker Hill Mine, Coeur d'Alene Mining District, Shoshone County, Idaho, USA. November 03, 2021. Effective Date September 20, 2021"

Wilson, S.E. et al., 2021, "Technical Report and Preliminary Economic Assessment for Underground Milling and Concentration of Lead, Silver and Zinc at the Bunker Hill Mine, Coeur d'Alene Mining District, Shoshone County, Idaho, USA. December 29, 2021. Effective Date November 29, 2021"

Wilson, S.E. et al., 2022, "Technical Report and Preliminary Economic Assessment for Underground Milling and Concentration of Lead, Silver and Zinc at the Bunker Hill Mine, Coeur d'Alene Mining District, Shoshone County, Idaho, USA. February 22, 2022. Effective Date January 7, 2022"

25 RELIANCE ON INFORMATION PROVIDED BY REGISTRANT

The consulting firms and their Qualified Persons (QPs) have relied upon written reports and statements of other individuals and companies with whom they do business. It is believed that the basic assumptions are factual and accurate, and that the interpretations are reasonable. This data has been relied upon in the prefeasibility study and there is no reason to believe that any material facts have been withheld or misstated. The QPs have taken all appropriate steps, in their professional judgment, to ensure that the work, information, or advice from BHMC personnel is sound and the QPs do not disclaim any responsibility for the Technical Report Summary.

For the specific purpose of this Technical Report Summary, the QP's relied upon legal, environmental and tax matters provided by the registrant as follows:

- With respect to land issues, leases and information, RDA has relied upon the Title Opinion of Lyons O'Dowd Law Firm dated August 12, 2020 as well as written and verbal communication with BHMC in the preparation of section 3.

- Tax assumptions for the economic model underpinning the TRS, finalized shortly before the Company's news release regarding the PFS of September 06, 2022, were developed by Scott Farmer of Mining Tax Plan LLC. These tax assumptions were used for the economic analysis of the Project.

- RDA has relied on and included data provided by the Company and its consultants and its contractors and has drawn its own conclusions from the data.

- Patterson & Cooke North America provided the tailings and backfill engineering and capital estimates; Barr Engineering provided the milling and process design, capital and operating costs in conjunction with Bunker Hill's management team. Golder and Associates USA, Inc. toured the property and provided preliminary geotechnical opinions. All personnel related or employed by the above companies, and had involvement with the Bunker project and studies, are considered professionals and not Qualified Persons under the definitions of this report.

No other experts were relied upon in the preparation of this Technical Report Summary.