

April 2021 TSX:PPTA NASDAQ:PPTA

PERPETUA RESOURCES

Critical Resources. Responsible Mining. Environmental Restoration.

ADMINISTRATIVE SETTLEMENT AGREEMENT AND ORDER ON CONSENT (ASAOC)

www.perpetuaresources.com

1890s

The Thunder Mountain gold rush brings mining to the area

Mining at Yellow Pine pit stops salmon migration upstream

1938

1953-1960

With WWII & the Korean War over, mining slowed and Stibnite slowly faded

1900-1930

The town of Stibnite is established

1941-1950

The town of Stibnite booms when antimony & tungsten were declared critical & strategic minerals

1960s

Earthen dam failure resulting in hundreds of tons of sediment eroding into - - surrounding streams & rivers, even to this day

1970s-1990s

Periodic mining by multiple owners and operators

1990s-2000s

All mining stopped, U.S. Gov't conducts some limited clean-up

HISTORICAL STIBNITE MINING DISTRI



Perpetua Resources consolidated land ownership & began evaluating the geology & environment within the Stibnite Gold Project area

2009-2011

THE STIBNITE GOLD PROJECT

We can take an area abandoned after 100 years of mining activity and use a sustainable approach to restore the environment and develop a modern mining project with critical mineral production.





WHAT DID WE NEED?



- 1. Regulatory certainty on CERCLA
- 2. Agency alignment
- 3. Solution that fit our timing and finance limitations
- 4. Social license proof-point on our Commitment to Restore the Site

Water quality in the historical Stibnite Mining District is a problem and it has been for a very long time. Many of the issues we see at the site today were caused by mining activity during World War II and the Korean War – decades before we even existed. While we did not create the problems at the site, we have always wanted to be part of the solution. Today, we are one step closer to this reality.

-Laurel Sayer, CEO Perpetua Resources

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...nongovernmental organizations and mining companies, have limited their participation in projects to address environmental hazards at abandoned mines because of concerns about their potential legal liability under CERCLA and the Clean Water Act.

> The Government Accountability Office's 2020 <u>Report</u> on Abandoned Hardrock Mines



2002-2012

Three CERCLA settlements between previous operators and U.S. government agencies provided some site improvements and allowed all parties to walk away from liability for the environmental conditions at Stibnite.



STIBNITE GOLD PROJECT

The SGP Plan of Restoration and Operations (PRO) addresses substantial legacy impacts

Other areas remain that need environmental attention but are not associated with the SGP

WE NEED REGULATORY APPROVAL TO ADDRESS THESE AREAS



Legacy Sites Addressed by PRO Legacy Sites Not Addressed by PRO



COMMITTMENT TO EARLY RESTORATION

ADMINISTRATIVE SETTLEMENT AGREEMENT AND ORDER ON CONSENT (ASAOC)

An ASAOC is necessary to allow a third-party to voluntarily address environmental conditions at an abandoned mine site without inheriting the liability of the conditions left behind by past operators.



SOLUTIONS START NOW PATH FOR ABANDONED MINE RESTORATION

January 15, 2021: Perpetua signed ASAOC with the Environmental Protection Agency & the U.S. Forest Service with concurrence of the U.S. Department of Justice, to perform agreed early actions to improve water quality conditions at Stibnite

Engagement: The Idaho Department of Environmental Quality and two Idaho Tribes were involved in process, multiple government-togovernment consultations

Multiple Phases: Immediate, time-critical needs are addressed first over 4 years; then should Stibnite Gold Project be permitted, and all parties agree, the Agreement allows for a comprehensive site cleanup

ASAOC does not approve mining activity, it only provides for clean up activity of legacy waste and is separate from the NEPA process reviewing the Stibnite Gold Project



Administrative Settlement Agreement and Order on Consent (ASAOC)

An ASAOC is necessary to allow a third-party to voluntarily address environmental conditions at an abandoned mine site without inheriting the liability of the conditions left behind by past operators

WHY IT WORKS

- 1. Action Now: Directs the Company to conduct a first phase of clean up over four years to address time critical needs.
- 2. **Comprehensive Cleanup:** Should the Stibnite Gold Project be permitted and all parties agree, the ASAOC provides for cleanup of legacy waste outside of the Project footprint, providing for a comprehensive cleanup of the district.
- **3. Liability:** The ASAOC determines that the Company will not be responsible for the liability associated with legacy waste left by previous operators.
- 4. Outcomes-Based: The agreement is an enforceable and legally binding agreement and comes with ongoing oversight and monitoring and requires financial assurance
- 5. Not NEPA, Not Mining: The ASAOC only provides for cleanup activity of legacy waste; it is wholly separate from the NEPA process reviewing the Stibnite Gold Project; it does not change the process, timing or review for the Project.



ASAOC PHASE 1

ADDRESS CRITICAL AREAS

Phase 1 is designed to have an immediate improvement in water quality over the next 4 years

• 3 water diversions to help keep clean water clean – away from known legacy contamination

- Removal of ~325,000 tons of historical mine waste from problematic locations near the East Fork South Fork Salmon River
- Biological Assessment
- 404 Clean Water Act evaluation
- Cultural Resources Survey
- Historical mine waste characterization study
- 5 adit investigations

Will inform

Phases 2 & 3

• \$7.5M Financial Assurance



BRIDGE PHASE



OPTIONAL STUDY

Evaluate the feasibility and cost effectiveness of additional water diversions, capping/cover of mine waste in place, and targeted removal of additional waste materials to improve water quality.

The Bradley NE Oxide Dumps, NW Bradley Dumps, DMEA Dump, and other sources should be considered for additional removal.



ASAOC PHASES 2-3

COMPREHENSIVE CLEANUP

Phase 2 & 3 are designed to be initiated if the Stibnite Gold Project is approved through the NEPA process.

Run in Parallel with Operations and Restoration of Stibnite Gold Project

- Phases initiated if the Stibnite Gold Project is approved and both parties agree.
- Non-time critical removal actions which will have public involvement.
- Provides permission to address all legacy areas that remain outside of the Stibnite Gold Project footprint.
- Work will be informed by Phase 1 studies and determined by EPA in consultation with other agencies and government-togovernment consultation.
- Larger scale work intended to align with financial capability and industrial capacity provided by the Stibnite Gold Project.
- Financial Assurance required.



BRADLEY DUMPS AND HENNESSY CREEK

SOLUTIONS: EARLY ACTIONS

- Dumps composed of ~4.5 MT of sulfide altered waste rock and overburden
- Hennessy Creek currently diverted upslope of dumps

 Inflows through EFSFSR reach that spans pit and dumps account for **up to half** of EFSFSR arsenic load depending on season

Groundwater level

s expected to drop

below dump

Photo of Hennessy Creek water reemerging at dump toe



DMEA WASTE ROCK DUMP AREA

SOLUTIONS: EARLY ACTIONS

- DMEA Adit and Waste Rock Dump
- Located on USFS-managed land
- Arsenic load in DMEA creek increases from upstream to downstream of dumps
- DMEA area not included in Stibnite Gold Project footprint



MEADOW CREEK VALLEY & SMELTER SITE





REMOVE WASTE

FROM NEAR EAST FORK SOUTH FORK SALMON RIVER

Photo looking

south along the

On/Off Pads Remove 200,000 tons of waste at Bradley Man Camps



Photo looking south along the EFSFSR from

EFSFSRemove 25,000 tons tailings at Meadow Creek / EFSFSR Confluence

LOWER MEADOW CREEK

TAILINGS REMOVAL AND STREAM RESTORATION

- Remove 25,000 tons of tailings and contaminated alluvial materials
- Place materials in on-site repository
- Stream restoration to increase floodplain connectivity and improve aquatic habitat



CONCEPTUAL RESTORATION DESIGN FOR REMOVAL ACTION PLANNING



BRADLEY MAN CAMP DUMPS REMOVAL ACTION

DUMPS ADJACENT TO EFSFSR

- Waste rock from historical mining operations
- Appx 2500 x 200 feet and 9 feet thick
- Appx 137,000 CY of mine wastes
- Materials to be placed in on-site repository
- Phased removal from upstream to downstream using mass excavation equipment





ONSITE REPOSITORY

REPOSITORY DESIGN

- Appx. 150,000 CY storage capacity
- 25,000 tons of tailings from Meadow Creek
- 200,000 tons from EFSFSR Man Camp Dumps
- Appx. 1500 x 200 feet and 25 feet tall
- Minimum 18" vegetated cover of clean fill







ADIT STUDY

Conduct baseline studies of Mine Influenced Water at five adits.

Adits include:

- Bailey Tunnel
- DMEA Adit
- Bonanza Adits
- Cinnabar Tunnel
- Meadow Creek Mine

Undertake baseline studies to inform the design of removal action alternatives.



FINANCIAL ASSURANCE CONSIDERATIONS

The Financial Assurance (FA) component can be often overlooked or, minimally, neglected as part of the overall negotiation process.

Securing FA can be a cumbersome, challenging, and time-consuming task. This can result in budgets being impacted in order to satisfy and comply with underlying FA requirements to finalize a closing. The following are some considerations that would be beneficial to keep in mind with respects to FA.

Lead Time	Engage surety broker and sureties early in the process
Transparency	 Maintain communication with broker and sureties throughout the negotiation process "Oversharing" is never a problem
Menu	 Effort to negotiate as many acceptable FA mechanisms as possible Parental Guarantee, Surety Bond, Cash Bond, Letter of Credit, Trust Fund
Substitutions	 Include language allowing for substitution or swapping of FA instruments at a later date Important if the principal is unable to secure a more favorable FA instrument initially but may be in a position to do so at a later date
Reductions	 Address ability to decrease FA required amounts as work is completed or exposure is reduced If Trust Funds are required then allow funding of the Trust to offset other FA requirements
Size	 Larger FA requirements can create challenges Sureties: additional layers of underwriting levels, internal thresholds for certain bond obligations, potential to trigger reinsurance limits or exclusions
Partnership	• Our best outcomes for our clients have been those that view and treat the surety as a partner in the deal



OUESTIONS & CONVERSATION



REGULATORY INFORMATION

The FS was compiled by M3 Engineering & Technology Corporation ("M3") in accordance with National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* ("NI 43-101") under the direction of independent qualified persons (as defined in NI 43-101) ("Independent QPs"). Independent QPs for the FS include: Richard Zimmerman, SME-RM (onsite and offsite infrastructure, cost estimating and financial modeling) and Art Ibrado, P.E. (mineral processing) with M3; Garth Kirkham, P.Geo. (mineral resources) with Kirkham Geosystems Ltd.; Christopher Martin, C.Eng. (metallurgy) with Blue Coast Metallurgy Ltd.; Grenvil Dunn, C.Eng. (hydrometallurgy) with Hydromet WA (Pty) Ltd.; Chris Roos, P.E. (mineral reserves) and Scott Rosenthal P.E. (mine planning) with Value Consulting, Inc.; and Peter Kowalewski, P.E. (tailings storage facility and closure) with Tierra Group International, Ltd.

The material scientific and technical information in respect of the Project in this presentation, unless otherwise indicated, is based upon information contained in the FS. Readers are encouraged to read the FS, which is available under the Company's profile on SEDAR, for detailed information concerning the Project. All disclosure contained in this presentation regarding the mineral resource estimates and economic analysis on the property is fully qualified by the full disclosure contained in the FS.

Information of a scientific or technical nature in this presentation has been approved by Austin Zinsser, SME-RM, Sr. Resource Geologist for Perpetua Resources Idaho, Inc. and a qualified person (as defined in Ni 43-101).

All mineral resources have been estimated in accordance with CIM definitions. Mineral resources are reported in relation to a conceptual pit shell to demonstrate potential for economic viability, as required under NI 43-101; mineralization lying outside of these pit shells is not reported as a mineral resource. Mineral resources are not mineral reserves and do not have demonstrated economic viability. Mineral resource estimates include inferred mineral resources that are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. It is reasonably expected that the majority of inferred mineral resources could be upgraded to indicated mineral resources.

The mineral resources and mineral reserves at the Stibnite Gold Project are contained within areas that have seen historic disturbance resulting from prior mining activities. In order for the Company to advance its interests at the Stibnite Gold Project, the Project will be subject to a number of federal, state and local laws and regulations and will require permits to conduct its activities.

NON-IFRS REPORTING MEASURES

"Cash Costs", "All-in Sustaining Costs" and "Total costs" are not performance measures reported in accordance with International Financial Reporting Standards ("IFRS"). These performance measures are included because the statistics are key performance measures that management uses to monitor performance. Management uses these statistics to assess how the Project ranks against its peer projects and to assess the overall effectiveness and efficiency of the contemplated mining operations. These performance measures do not have a meaning within IFRS and, therefore, amounts presented may not be comparable to similar data presented by other mining companies. These performance measures should not be considered in isolation as a substitute for measures of performance reported in accordance with IFRS.

FORWARD LOOKING STATEMENTS

Information and statement contained in this presentation that are not historical facts are "forward-lookina information" or "forward-lookina statements" (collectively, "Forward-Lookina Information") within the meaning of applicable Canadian securities legislation and the United States Private Securities Litigation Reform Act of 1995. Forward Looking Information includes, but is not limited to, information concerning the Company's business including but not limited to statements with respect to results of the FS (as defined below); disclosure regarding possible events, conditions or financial performance that is based on assumptions about future economic conditions and courses of action; the timing and impact of future activities on the Project, including but not limited to the ability to address legacy features left by previous operators; the anticipated economic, environmental and other benefits of the Project; the viability of the Project; development and operating costs in the event that a production decision is made; success of exploration, development and environmental protection, closure and remediation activities; permitting time lines and requirements; requirements for additional capital; requirements for additional water rights and the potential effect of proposed notices of environmental conditions relating to mineral claims; risks and opportunities associated with the Project; planned exploration and development of properties and the results thereof; planned expenditures, production schedules and budgets and the execution thereof. Statements concerning mineral resource and mineral reserve estimates may also constitute Forward-Looking Information to the extent that they involve estimates of the mineralization that may be encountered if the Stibnite Gold Project is developed. In preparing the Forward-Looking Information herein, the Company has applied several material assumptions, including, but not limited to, that any additional financing needed will be available on reasonable terms; the exchange rates for the U.S. and Canadian currencies will be consistent with the Company's expectations; that the current exploration, development, environmental and other objectives concerning the Stibnite Gold Project can be achieved and that its other corporate activities will proceed as expected; that the current price and demand for aold and antimony will be sustained or will improve; that aeneral business and economic conditions will not change in a materially adverse manner and that all necessary agvernmental approvals for planned activities on the Stibnite Gold Project will be obtained in a timely manner and on acceptable terms; the continuity of the price of gold and other metals, economic and political conditions and operations; that the circumstances surrounding the COVID-19 pandemic, although evolving, will stabilize or at least not worsen; and the assumptions set out in the FS. Forward-Looking Information involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by the Forward-Looking Information. Such risks and other factors include, among others, the industry-wide risks and project-specific risks identified in the FS; risks related to the availability of financing; operations and contractual obligations; changes in exploration programs based upon results of exploration; changes in estimated mineral reserves or mineral resources; future prices of metals and minerals; availability of personnel and equipment equipment; equipment failure; accidents, effects of weather and other natural phenomena and other risks associated with the mineral exploration industry; environmental risks, including environmental matters under US federal and Idaho rules and regulations; impact of environmental remediation requirements and the terms of existing and potential consent decrees on the Company's planned exploration and development activities on the Project; certainty of mineral title; community relations; delays in obtaining governmental approvals or financing; the Company's dependence on one mineral project: the nature of mineral exploration and mining and the uncertain commercial viability: the Company's lack of operating revenues; governmental regulations and the ability to obtain necessary licenses and permits; risks related to prior unregistered agreements, transfers or claims and other defects in title to mineral projects; currency fluctuations; chanaes in environmental laws and regulations and changes in the application of standards pursuant to existing laws and regulations; risks related to dependence on key personnel; COVID-19 risks to employee health and safety and a slowdown or temporary suspension of operations in geographic locations impacted by an outbreak; and estimates used in budgeting and financial statements proving to be incorrect; as well as those factors discussed in the Company's public disclosure record. Although the Company has attempted to identify important factors that could affect the Company and may cause actual actions, events or results to differ materially from those described in Forward-Looking Information, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. There can be no assurance that Forward-Looking Information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordinaly, readers should not place undue reliance on Forward-Looking Information. Except as required by law, the Company expressly disclaims any obligation to update the Forward-Looking Information herein.

Cautionary Note and Technical Disclosure

The presentation has been prepared by Perpetua Resources management and does not represent a recommendation to buy or sell these securities. Investors should always consult their investment advisors prior to making any investment decisions.

All references to "dollars" or "\$" shall mean United States dollars unless otherwise specified.

The material scientific and technical information in respect of the Stibnite Gold Project in this presentation, unless otherwise indicated, is based upon information contained in the technical report titled "Stibnite Gold Project, Feasibility Study Technical Report, Valley County, Idaho" dated effective December 22, 2020 and issued January 27, 2021 (the "FS" or "2020 Feasibility Study"). Readers are encouraged to read the FS, which is available under the Company's profile on SEDAR, for detailed information concerning the Project. See also "Regulatory Information" at the end of this presentation.

Cautionary Note to U.S. Investors

This presentation includes Mineral Reserves and Mineral Resources classification terms that comply with reporting standards in Canada and the Mineral Reserves and the Mineral Resources estimates are made in accordance with National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101"). NI 43-101 is a rule developed by the Canadian Securities Administrators that establishes standards for all public disclosure an issuer makes of scientific and technical information concerning mineral projects. These standards differ significantly from the requirements of the SEC set the SEC's rules that are applicable to domestic United States reporting companies. Consequently, Mineral Reserves and Mineral Resources information included in this news release is not comparable to similar information that would generally be disclosed by domestic U.S. reporting companies subject to the reporting and disclosure requirements of the SEC. Accordingly, information concerning mineral deposits set forth herein may not be comparable with information made public by companies that report in accordance with U.S. standards.

THANK YOU.



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