

January 5, 2023

US Forest Service- Payette National Forest  
Ms. Linda Jackson- Payette National Forest Supervisor  
500 North Mission Street, Building 2  
McCall, Idaho 83638

RE: Stibnite Gold Project Support- 50516 SDEIS

Ms. Jackson and Staff,

I support the Stibnite Gold Project (SGP) in no small part through the commitment to repairing the decades old mining damage, re-establishing critical fish passage, spawning habitat and launching restoration of the Stibnite area. The unity of conservation and preservation can be a powerful force through combined need and aligned pursuit.

There's more though, far more. Idaho based Perpetua Resources has already invested \$88 million here in the Gem State. The many laudable values within the project converge at a time of national need, fish and habitat concern, increasing mineral needs, transitioning energy, along with geopolitical risk and disruption of critical supply chains.

Approval of the 2021 Modified Mine Plan (MMP) would be aligned with the multiple use policy of the United States Forest Service (USFS). Approval would also be a far cry from damages furthered by an official position of the No Action Alternative within the SDEIS. Should this project not go forward, neither do the future gains of environmental repair. The damage within area, the obstruction of the East Fork of the South Fork of the Salmon River (East Fork) happened through the actions of man, even non-actions of man. While the forces of nature are always at work and nature tends to find a way, nature isn't going to repair the area, fish passage or habitat. Repair is going to take the willing mind of man and man's machinery. Cleanup and repair completion is square one of a restoration process.

A proposed Super Fund listing of Stibnite 20 years ago was not pursued by the State of Idaho for varying reasons. With adequate resources SGP can repair and transform the Stibnite area far better than it currently is, without taxpayer funding. Certainly not picture perfect to the pristine setting prior human entrance upon the land. We should be realistic in expectation, ability, cost, funding and even more so with restoration timeline. Site and streambeds restoration includes wholesome gains realized after repair, decades in constant improvement with nature taking lead, ancestral value in perpetuity. A fully permitted 2021 MMP is integral to the resources needed for repair, to start the forward benefit that takes time to evolve naturally.

Perpetua Resources understands the wholesome benefit of developing relationships within community and supply chain. They have been engaged in area betterment for years already. The organization has brought social value, family sustaining jobs and immense economic opportunity to the doorstep.

I submit that The Stibnite Gold Project can be a safe, successful, accountable operation. In reflection, SGP was determined a feasible endeavor by independent study. Exceptional grade and low strip ratio was found to place the project in low cost curvature. High grade ore, low recovery costs and good reserve bodies being positive attributes. High grade ore can also equate less tailings or rejects being

generated, which helps to control excessive pressure on tailings facilities, water treatment needs and restoration goals. Project economics were found to be resilient at lower metals prices, advantageous with rising prices. Balanced margins through cyclical swings helps drive continued success. Re-investment helps protect good jobs, energize the economy and to stabilize rampant impact of boom and bust upon communities.

Three of the core values within the Feasibility Study technical report dated December 22 2020. In descending order: 1) "Meet society's present day needs for economic prosperity and mineral production while remaining protective of the environment and ensuring sustainability for future generations." 2) "Design with closure in mind, providing a long-term foundation for a naturally sustainable ecosystem." 3) "Ensure local and regional financial and social benefits by prioritizing local hiring, training, purchasing, and contracting." End both quotes, end of reference.

Best practice mine planning and responsible mining are key components of repairing and restoring the Stibnite area. They are also crucial components of economic stability and national security, the two go hand in hand. Revenue generated can be revenue utilized.

Responsible stakeholders have participated with an embedded land ethic. Regulatory agencies have performed their duties with analysis and reasonable action. One can respect responsible concerns regarding the Stibnite area, headwaters of the Salmon River. The East Fork of the South Fork of the Salmon River (East Fork) and Johnson Creek (JC) are critical fish habitat. They are nearly a 900 mile migration for anadromous salmon and steelhead spawning. These species have encountered hydro-power dams, slack water, commercial and sport fishing, nets and predation. These are connecting links between the bulk of us regardless of background or pursuit. As a result of these concerns and more the 2021 MMP, Preferred Alternate is balanced. I offer encouragement along this course through a timely FEIS and to a positive ROD.

Perpetua Resources understands the wholesome value of bringing people to the table. Listening with intent to understand and responding in productive manner, sometimes to sharp input. Community engagement, site tours and periodic webinars are informative. Presentations and site tours are highly numbered and well attended. Their on-going site clean-up is solution minded and of generational value.

They have become engrained in several rural communities. They embedded community members early on at executive level of their structure. They facilitated the Stibnite Advisory Council, a committee of representatives from local communities and senior Perpetua personnel, a forum for community engagement and problem-solving. This team created the Stibnite Foundation, a long-term endowment with profit sharing measures. They established a scholarship program for a high school graduating seniors from 8 different schools or home school programs. To be used for education furtherance at university, college or technical school, and hopefully leading to solid jobs, good benefits and family sustaining careers.

The resources within an extensive industrial operation can be utilized to wholesomely address the severity of century old mining impact created during numerous periods in time. When one considers extracting, moving, processing and relocating 10 million tons of rock, and more in other waste material things get big in size, scope and cost- Astonishing to some. Plant operations approaching 25,000 TPD can become difficult to grasp what is needed to effect such, particularly site specific.

Yellow Pine and Stibnite, two of Idaho's locations with seemingly 12 seasons: Winter, fools spring, second winter, spring of deception, third winter, mud season, actual spring, summer, hells front porch, false fall, second summer, and actual fall. This is terrain where July is typically the hottest month, it can frost come August, snow can accumulate in mass any time after Columbus Day, there are numerous snow types annually. The wind is formidable, massive drifts are recurrent, thaw and refreeze begets more ice and spring is a long time coming.

As has been said before Idaho is a known mecca for recreation, tourism and scenic beauty- Equally diverse commercial enterprise. Idaho is also known for innovation, conservation, heritage and leadership- As has become apparent of Perpetua Resources. One can discern that if the Stibnite site isn't repaired now with Perpetua Resources, likely not in the lifetime of many of us, and maybe never.

Many of us are 2<sup>nd</sup> 3<sup>rd</sup> 4<sup>th</sup> generation from the era of WWI and WWII, years of grave natural resources, minerals and lumber concernment. Idaho supplied a large portion of industrial knowledge through workers in addition to military personnel. Loggers and sawyers worked in France during WWI and miners worked at Stibnite during WWII.

Some of our elders were born or lived at Stibnite, worked there, or know folks that did in the 1930's, 40's, or 50's. The same goes for the latter end of mining at Pearl ID. Hardworking, durable people- Guys and gals alike scraped out an existence in harsh, developing times and fought for allied interest. As descendants of the greatest generation we can help effect large scale beneficial return. One way is by recognizing, grasping and effectively pursuing responsible opportunity currently in front of us.

Through extensive exploration the site is thought to be one of the top ten largest gold deposits in the United States. Perpetua believes they can recover nearly 5 million ounces of gold, 1.7 million ounces of silver and 115-140 million pounds of antimony. Those amounts are appreciable, when converted to market value of each they can become staggering. It's important to recognize the difference between revenue and profit. Mining around the clock, continuing operations and massive equipment is risky business in and of itself.

Successfully pursuing the antimony as single target could be difficult logistically and financially in rugged terrain and challenging calendar periods, it certainly was in earlier times at Stibnite. Adverse weather patterns, elevation variances, drainage bottoms, steep chutes and downed trees only added to the equation. Modern day the Burntlog route can reduce drainage bottom exposures, avalanche, rock fall, treefall and washout possibilities. Burntlog can enhance transportation in and out, therefor operations logistically. Gold recovery betters the scale financially, the silver resource brings added viability and good reserve bodies provide buffer.

There is a plethora of related technology available. Air support is as close as Cascade, McCall, Boise or even Challis or Salmon upon flyable need. Medical facilities exist in Valley County, regional level medical centers, an accomplished supply chain of vast application and rail service are within serviceable proximity within the Treasure Valley. Trade's workers will welcome the opportunity and experienced miners are waiting in the wind to live and work in Idaho. Young workers can be energized about their future. Word of opportunity for numerous craft and skillset will travel far and fast upon hiring notice.

Valley County is the fifth largest of Idaho counties geographically and can be challenging for emergency or supportive response. With a small revenue base- Budgets, personnel and other resources can get stretched quickly through sizeable, extended or numerous events. A major mining operation of modern capacity is going to be something fairly new within most county operations. One can see need for mine site and route pertinent equipment and specific training at varying levels. Response and rescue teams are generally developed within mine operations, and can mix with other mining industry teams. They commonly interface with county rural fire, EMT transport, law enforcement and area medical outlets upon need.

In addition to environmental concern it's important to weigh the social and economic impacts within responsible mining, and beneficial use of natural resources. The feasibility study and EIS processes have touched on these, although there appears void of expansive topic regarding domestic sourcing of minerals- Antimony being critical to the security of United States.

Both the past Obama and Trump Administrations had heartburn with China's chokehold on critical minerals and imbalance in trade practices. The Biden Administration uses domestic supply chain resilience wording then does a reversal in direction. The administration formulates a Memorandum of Understanding with Congo and Zambia to help develop their critical minerals instead of supporting US domestic production. Fourteen years within the last three presidential administrations to date. The executive branch and congress has barely vibrated the needle on minerals dependency, which remains more aligned with importing from foreign nations, stockpiling and recycling than supporting domestic mining and new creation of. The USFS can take a leadership position in helping to stabilize American self-sustainable measures, and that would be fitting.

Social negative impact appears minimal, and economic benefits are one of many positive attributes within SGP. This world would be a dismal place without natural resources useful contribution to society. The mining sector provides minerals and vast knowledge that modern society not only needs, but can utilize to combat climate change and facilitate other emerging frontier. A favorable ROD can align with USDA Forest Service motto, "Caring for the Land and Serving People."

SGP has been successful in funding, exploration, design and interface since 2010. Scoping and mine plan was in progress 2016/2017, mine plan configured 2019, the DEIS effected with public notice and comment 2020, subsequent modified mine plan surfaced 2021, the SDEIS effected with public notice and comment 2022. Public notice, participation and comment has been ongoing for numerous years. Regulatory review with multiple agencies at local, state and federal levels has advanced over the last six years, nearing a sound conclusion. I applaud The Payette National Forest effort, it's time now to expedite the FEIS and issue an ROD. Perpetua Resources has partnered in business, community and school districts. They have a vested interest in Idaho. A timely and appropriate approval of 2021 MMP/Burntlog Route would allow them to pursue the many permits required to sustain productive course, and to continue with early end stream repair and fish passage preparations.

The leadership of Perpetua Resources, personnel and contractors have performed well with their many accomplishments to date- Safety and transportation included. There is priority on safe and secure transport of fuels and other commercial loads- Standard, oversize and sensitive others. Piloting, escorting, consolidation as possible of loads and additional support are organized events. Personnel and suppliers are keenly aware of travel and weather conditions, public safety and environmental protocol.

A Project Of This Overall Caliber Does Not Come Forward Often. This Is A Unique Endeavor Having Extraordinary Opportunities For Present Day And The Future, At Home And National Level.

I substantiate my comment by being an Idaho stakeholder and experiencing a life's career in associated industry. Background: Retired, occasionally advocating responsible opportunity and value based industry. 43 year rounded career within heavy commercial entity in Boise, Idaho. The organization has routinely supported large industrial operators, local business, community needs for 80 years, the mining industry nearly as long, and likely the war effort at Stibnite. Having manufactured for, repaired and retrofitted equipment, transported to, or otherwise supported diverse industry including over 50 domestic sites of mining operations. Prominent mine operators include: Newmont Mining, Barrick Gold and their JV of Nevada Gold Mines. Coeur Mining, Thompson Creek Minerals, Hecla, Kennecott Copper, Kinross, Freeport-McMoRan and several forerunning principles. Off shore locations served through client arrangement include: Alaska, Canada, Mexico, Russia, Indonesia, Panama, Australia and Cameroon.

As a matter of career, wonderful years enjoying Valley County in all seasons since childhood, my wife and I being Valley County property owners of 30 years, and having personal interest- I have followed the journey of Perpetua Resources since 2011. There have been interactions through the years within feasibility costing estimate, sourcing, informative exchange and community involvement.

The Perpetua organization exhibits healthy company-community engagement through dialogue. I can and do speak of their vision, commitment and intersecting of environmental concern, social objectives and business goals. In one word- Worthy.

There are many reasons Perpetua Resources deserves a positive ROD. Committed course of capital investment, due diligence, integrity, credibility, environmental and national need come to mind. I'll continue to support best practice mine planning, usage of local organizations, local hiring and good neighbor actions.

#### Ancillary SDEIS Comment:

- In early 2015 the National Mining Association commissioned SNL Metals & Mining to carry out a study to demonstrate the economic impact of mining project permitting delays in the United States. Four quotes are offered from within the Executive Summary: 1) "Of all the developed nations, unexpected and often unnecessary delays in obtaining mining permits afflict the U.S. most severely. Despite being blessed with a vast reserve of mineral resources, the U.S. only accounts for 7 percent of world-wide spending on mineral exploration and production is currently reliant upon a population of mature mining projects." 2) "As a consequence of the countries inefficient permitting system, it takes on average seven to 10 years to secure the permits needed to commence operations in the U.S. To put that into perspective, in Canada and Australia, countries with similar environmental regulations, the average permitting period is two years." 3) "Meanwhile, the demand for minerals to supply the defense, advanced energy, high-tech electronics, medical and transportation industries is rising. The U.S. while leading on the manufacturing of these technologies, is lagging in the production of the minerals needed to make them." 4) "SNL Metals quantifies for the first time how much permitting delays impair and discourage investments in mineral development projects. It found that on average, a typical

mining project loses more than one-third of its value as a result of unexpected delays in receiving the numerous permits needed to begin production. The longer the wait, the more the value of the investment is reduced, even to the extent that the project ultimately becomes an unviable investment.” End of quotes, end of study reference.

- There has been public concern of routing coming in close proximity to the border of the Frank Church River Of No Return Wilderness. Included in those concerns are that of noise and light pollution. Also that wolverine habitat can include that area, seemingly that mine traffic could impact an imperiled species and/or other wildlife. Appreciating the concern I would like to add some more body to the species and wildlife aspect. It's refreshing to know of wolverine at much lower elevations, even including close proximity to the Rainbow Bridge. All the commercial, construction, maintenance and personal traffic, the visual and audible disturbance of HWY 55 nearly 24 hours a day, the south bound jake brake noise reverberating off the canyon walls in every season of the year. The low aircraft, chainsaws, rafting and other outdoor activities seemingly not much of a bother. While this area is likely not within a wolverine habitat study, that doesn't diminish from the fact of the species having been there. I am a fortunate one to have had a wolverine experience particularly within 80' and a pick up within 300 yards, amazed is an understatement.

Wildlife possess adaptability to surroundings and happenings. Same as humans except that wildlife remain keenly observant and ever alert. They don't exist in a society of complacency and automatic means. They are highly intelligent, have adapted to using elevated highway and interstate crossings constructed for multiple species. Animals have a learned knowledge of man, even a curiosity of man, maybe more the habits and activities of. They frequent logging and construction sites, parked heavy equipment, they take advantage of roads and skid, ATV or groomed OSV trails. They visit campsites and use many of the same trails as man. Countless bobcat, elk, deer, fox, coyote, wolf and bear have been seen on roads between Cascade, Yellow Pine and Stibnite- That either Johnson Creek or South Fork Roads, up the East Fork. Bison, Moose, Bear and other wildlife frequent the roads in and around Yellowstone National Park, particularly for ease of travel in deep snow. Wildlife will become oriented with SGP, regardless of routing.

A reference from The Idaho State Fish and Game Wolverine Management Plan For The Conservation of Wolverines, Plan Years 2014-2019- An excerpt, a quote from the Executive Summary "Wolverines naturally occur in low densities across their global range. Current western U.S. population estimates range from 250 to 318 individuals, reflecting the estimated population prior to European settlement. These levels suggest that wolverines have reclaimed large expanses of their historical range in the contiguous U.S. after historical lows or local extirpations in the early 1900s. This pattern is evident in Idaho, where wolverines have been reported in 34 of 44 (77%) counties and presently occur in most, if not all historically occupied habitat in Idaho." End of quote, end of Wolverine Management Plan reference.

- The Burntlog Route and Thunder Mountain access will primarily follow an existing forestry road corridor. Completion will help keep mine related traffic off Johnson Creek, through Yellow Pine, and up the East Fork. To this point- Mine related travel will not only heavily increase total vehicle travel, but will also include substantial amounts of large vehicle traffic (trucks), slowing overall travel times for small vehicle traffic (non-mine). Burntlog also helps protect water quality, critical fish habitat from sedimentation, transportation mishap and/or hazardous

material spill along JC and up the East Fork. The power line will follow the existing powerline corridor.

Burntlog enhances safety, helping to minimize mine related and personal vehicle encounters. It helps to control heavier dusting emissions upon area residents and recreationalists. Dust would significantly increase by adding mine related traffic to existing traffic if the JC route were utilized overall, particularly through the very center of Yellow Pine.

An excerpt from the SDEIS Executive Summary- Both the Burntlog and Johnson Creek routes have segments that are exposed to landslides, rockfalls and avalanches. These geo-hazards present along the road corridors could increase the potential for truck accidents resulting in spills of hazardous materials. The Burntlog Route has exposure to 26 landslides or rock falls and 38 avalanches. The Johnson Creek Route has exposure to 45 landslides or rock falls and 94 avalanche paths. The Johnson Creek Route thus may have higher potential for increased trucking accidents and greater spill risk from the geo-hazards. End of executive summary reference.

- Minerals have been strategic in application for centuries, crucial during periods of conflict, domestic supply being critical during global conflict. To that point the U.S. had mineral dependency issues at the onset of WWI. Manganese, one of the most important of strategic minerals was mined very small scale domestically compared to actual consumption. It can be found to have been less than five percent, woefully inadequate- The remainder having to be imported.
- War time pressures created intense need of the mineral even during the period of non-combat for the United States, a time when America was heavily engaged in the role of manufacturing support. Cargo ships and supply vessels were under assault by Germany, merchant warfare was rampant. The USS Cyclops, originally supplying coal to the eastern naval fleet during WWI, entire crew and cargo were lost at sea while transporting a heavier load of manganese back to the U.S from a distant support mission. Conjecture remains she was lost in violent storm, possibly suffered structural failure from being high pointed at mid-ship or was either sunk or captured.
- There is informative article on the subject of the importance of the supply chain for strategic and critical materials having not been well appreciated. The article is titled Stop Stock Piling, Start Developing, was written by Stephanie Halcrow, a former professional staff member of the House Armed Services Committee. A quote from within article "In 1939 Congress determined certain strategic materials in the United States were deficient for common defense. Congress directed not only the acquisition of stocks but also encouraged the development of mines to decrease the dangerous and costly dependence on foreign nations." End of quote. End of article reference. We have continued in the U.S. with stock acquisition. The development of mines "to decrease the dangerous and costly dependence on foreign nations," not so much.
- There is informative article in The Mining News publication headlined "Antimony may be a renewable energy unsung hero", by Shane Lasley offers- (in part and paraphrasing) Antimony was being mined at the onset of WWI on small scale and at remote locations. Some of the earliest for the war effort came from 30 miles NE of Nome, Alaska and additional ore coming from the Fairbanks District. Ore from the latter was known to be sacked, transported by cable tram to a ridge top, hauled by horse drawn wagons into Fairbanks and shipped south by river

steamer. End of paraphrasing. A quote from the same article is “America has the brainpower, spirit of innovation and work ethic to continue to solve some of the world’s toughest problems. However, we lack the minerals we need to bring those solutions to life,” said Perpetua Resources CEO Laurel Sayer. End of quote, end of article reference.

- In WWII the United States again found itself in need of critical minerals, including antimony, tungsten and more. The Bradley Mining Company became highly crucial in military effectiveness during WWII and The Korean War. The Stibnite Mine produced 90% of America’s demand for antimony and was integral to producing the Nations tungsten steel.
- There is congressional record from March 7, 1956 “In The Opinion Of The Munitions Board, The Discovery of That Tungsten at Stibnite, Idaho in 1942 Shortened World War II By At Least 1 Year and Saved The Lives Of A Million American Soldiers.” End of congressional record reference.
- Alarmingly the U.S. has no domestically mined sources of antimony today even though the mineral remains critical for our military strength and American prosperity. The U.S. has an increasing dependence upon foreign nations for several critical minerals, and supply chains are being pushed to extreme by demand. The World Bank has estimated that critical minerals production might need increased 500% by 2050 to support global climate goals. Other sources estimate battery production minerals may need boosted 2000% to sustain growth in green energy. This modern concern at global level is aligned with the earlier Shane Lasley article comment of Perpetua CEO Laurel Sayer, and also congressional encouragement from 1939 to development domestic mines, to secure American supply chains. End of article reference.
- December 20 2017, Presidential Executive Order (EO) 13817 signed by President Trump- A Federal Strategy to Ensure Secure and Reliable Supplies Of Critical Minerals, tasked the Department of the Interior to coordinate with other executive branch agencies to publish a list of critical minerals. The Department of The Interior published a list of 35 critical minerals in May 2018.
- The Energy Act of 2020 mandates that at a minimum of every three years the Department of the Interior must review and update the critical minerals list.
- June 2022 the House Armed Services Committee reported that Chinese and Russia geopolitical dynamics could “accelerate supply chain disruptions, particularly for antimony” and directed the Manager of the National Defense Stockpile to brief the committee on the five-year outlook for the antimony stockpile and supply chain.
- National dependency upon the import of critical minerals not only existed prior WWI, it escalated during the war, continued into WWII and the Korean War. It existed during the Vietnam War and other armed conflict since. There is historical and alarming concern of being tied to an import supply for such a critical need. It can be found that we use around 60 million pounds of antimony annually and that number is increasing. Reasoning minds can discern that the stockpiling of antimony via import is more of a first-aid level field dressing on a much larger problem. Perpetua Resources, The Stibnite Gold Project can help reduce our vulnerable situation.



- The war in Ukraine can certainly disrupt supply chains, influence cost on several fronts and/or worse. There appears building tensions between Russia and NATO countries over NATO and no small part the United States helping to arm Ukraine with sophisticated defensive weaponry. Taiwan is a major supplier of the world's refined cobalt, also supplying lithium and other critical minerals. The country is under military and political pressure from China, which has growing civil disruption, all of which can impact global trade and financial markets. Congo produces a majority of the world's cobalt, is plagued by weak government, the prevalence of many armed factions, entrenched political conflict and poverty.
- During WWII China and Russia had vast control of the world's antimony supply. It's not much different now including that China, Russia and U.S. relations are easily strained. If either one of those supplying nations decided to inflict high level military or economic pressure here at home, it doesn't take much more than a self-serving mineral shortage. A century after the first world war spotlighted mineral dependency problems, decades after congressional address and official publication, America remains hitched to foreign supply of minerals and fuels. More alarmingly given the increased need, ongoing dependency assessment and unheeded call for course correction. Non-action in that regard has furthered a damaging course.
- Commercial applications for antimony include fire retardant uses in, paints, clothing, electrical wire sheathing in homes, buildings, cars and more. Fire retardant properties are thought to be the biggest single asset of antimony today, around 40% of usage. Antimony's use in solar panel and wind turbine components supports green energy goals. Vast military and emerging uses for the mineral, including microelectronics increases antimony demand. A domestic source of mined antimony can help the transitioning green energy movement too, which is becoming even more mineral intensive.
- Mine planning is the foundation of value for a mining company. Life-of-mine planning (LOMP) is the formally approved long-term plan for a mine, developing framework in which short-term plans are created. The mining industry operates in a sequence of stages- Exploration, discovery, development, production, and reclamation. LOMP includes these four stages, which successfully operated mines adhere to.
- Best practice mine planning and management aligns with the Federal Mine Safety and Health Act of 1977. MSHA is the authoritative entity responsible for inspecting operating mine sites to ensure safe and healthy work environments for miners, and others entering or working onsite. The project will also align with the Occupational Safety and Health Act (OSHA) of 1970 as and where required.
- Mining contributes heavily to all three main sectors of the economy- Primary (raw minerals), Secondary (manufacturing) and Tertiary (service). Raw minerals are the building blocks of manufacturing. Made In America and Mined In America are nearly synonymous. Manufacturing generates more activity than any other sector. For every manufacturing job, there are three plus jobs created in many non-manufacturing industries. For every dollar of domestic manufacturing, more than three dollars of economic activity is generated.

- Besides being rare commodities and valuable investments, gold and silver are utilized in advanced technologies, space travel, airliner construction, the medical industry, commercial manufacturing and more. Gold has been described as a pathfinder mineral. The Stibnite mine was operating as a gold producer until the wartime needs of antimony took precedence. Silver is used in the fight of antibiotic resistant superbugs, water purification, jet engines, and helps convert sunlight into electricity in solar cells. Vehicle window electric defrost is achieved through silver ceramic lines in the glass. According to The Silver Institute 36 million ounces of silver are used annually in automobile manufacturing. End of the Silver Institute reference.
- There is a bang for buck aspect, a jobs multiplier within the Perpetua Resources proposal. It has been estimated by independent third party analysis that .878 indirect jobs can be created for every direct job during the mines operating period. Sidebar from that analysis, it is known that minerals supplied by SGP will support manufactured goods for the U.S. export market too. When one considers the jobs and careers in multi-tiered downstream suppliers (hidden exporters), many of which are non-union, small business and blue collar organizations- Jobs protection and or/new jobs value becomes nearly incalculable.
- One can appreciate the public struggle with a major mining operation at the headwaters of the Salmon River. The quality of our air, streams and ground waters are crucial. Natural resources are an asset to us all. An appreciable segment of society tends to see the mining industry as a destroyer of the landscape. This black eye has been caused in no small part by antiquated means of yesteryear, next to zero oversight, disregard and a few bad actors. The lands and streams impact we see today of Stibnite stands as testament to a by-gone era in mining. Wartime pressures, inadequate oversight, neglect and abandonment have ushered in many improvements within the mining industry. SGP is aligned with the best in design, will be compliance aligned with numerous checks and balances through modern mining regulations and very high standards of today. This starts with the permitting process of which the U.S. has the most stringent permitting requirements in the world today.
- Concerned people key on tailings dam failures which continue even modern day, there have been some tailings issues in Idaho. One of them in the 1990's involving a leak into Jordan Creek, a tributary of the Yanke Fork of the Salmon River. Most of them however are not on US soil. Informative reporting, one such article published June 20, 2019 being A Comprehensive Review on Reasons for Tailings Dam Failures Based on Case History, offered in part: Quote 1) "This research has determined that the failure of tailings dams is closely related to the state of the country's economy." Quote 2) "Most of the tailings dam breakages in developed countries occurred decades ago. In recent years, the proportion of tailings dam failures in developing countries has been relatively high." End of quotes. This study cites data availability to be previously reported electronic data figures used to support this study, and are available at <http://worldminetailingsfailures.org/>. The article lists 151 separate reference articles and associated authors. End of article reference.
- An important and commonly misunderstood aspect of the SGP tailing storage facility (TSF) is that designed height of pool is aligned with tens of feet, not hundreds of feet as in a dam for water storage. The structure and operating methodology are aligned with best practice tailings facility design. The facility is designed and lined to be zero discharge. One can read there are no known failures of facilities with these design characteristics: 1) Downstream construction. 2) Engineered rockfill. 3) Full composite liner. 4) Independent expert review. Added benefits

include: 1) Buttressed to double the safety factor. 2) Designed and regulated in the U.S. 3) 90% contained by mountains.

- Rural areas, mountain landscapes and clean, free flowing waters are important ecosystems providing critical benefits to wildlife and people. The Financial Assurance Plan (FAP) within the proposal is in place for environmental purpose and pre-operations financial commitment in that regard. Given the vast extent of waters, eco-systems, commercial enterprise, fisheries, recreation, tourism and more downstream possibly impacted by mine related actions, the FAP needs to be very well formulated, iron clad and have maximized contingency provisions. As stated in my comments for the DEIS in 2020 I have concern, and still question the extent of FAP coverage for mine related damages offsite of operations, in addition to onsite. This could include the South Fork of The Salmon, the Middle Fork of The Salmon, The Main Salmon, The Snake and by extension even the Columbia River Systems. Possibly more water bodies given the Burntlog or Johnson Creek route, still more given the Warm Lake HWY/HWY 55 corridor, still more given a HWY 52 corridor and still more given a HWY 95 corridor. Considering the velocities of most of the streams in central Idaho, particularly in heavy flow seasons there is concern regarding damage coverage extent.
- Long term water treatment needs are largely an unknown at this point in time. Best of engineering, best equipment and best practices are a formula for success, not a guarantee. Water testing and water treatment needs may or may not protract unknown years past mine reclamation. Through the years treatment plant configurations are subjected to modifications as per continuing water testing results- Commonly aligned with improved water quality at that point, however not necessarily. There is not accurate enough engineering, control over the forces of nature or crystal ball with enough clarity to exact the extent of total water treatment needs over several decades. Stibnite stands today as testament to that. Treatment protocol may very well be adequate as proposed, however may have generational impact potential.

There are many variables that can upset the best laid of plans, and there is also positive reference in water treatment success. Water treatment needs at the 1990's Grouse Creek Mine up the Yanke Fork of the Salmon River have improved to points of favorable modifications to water treatment, even accolades through the decades. Worthy of mention, treatment successes there began very early on and continue current day.

- Long term water testing and possible water treatment needs are a concern to many. It appears covered at least to a degree in the FAP. Reference: Provide Adequate Funding To Allow The Forest Service To Complete Reclamation And Post Closure Operation, Including Continuation Of Any Post Closure Water Treatment, Maintenance Activities, And Necessary Monitoring For As Long As Required To Return The Site To A Stable And Acceptable Condition In The Event Perpetua Was Unable To Do So.
- As per an Idaho Commerce news release May 17, 2017 Midas Gold was one of two Idaho recipients of the Corporate Investment and Community Impact Award (CiCi) from Trade and Industry Development Quote "Having made significant impact on, and contribution to, their community, including re-vitalizing their local area and providing meaningful, needed jobs." End of quote, end of reference.

- Perpetua Resources demonstrates a utilitarian mindset like most long-term Idahoans. Personnel and volunteers cleaned up and hauled off debris and waste left by others. The organization locally sourced, and then the same teaming efforts planted over 60,000 trees. They will eventually add other cover vegetation to the landscape especially along streams. Urban forests provide wildlife habitat, filter air and water, help to control erosion, cool streams and reduce noise. Perpetua has improved roadways, interfaces with Valley County on area road maintenance and has interfaced with ITD on Hwy 55/Warm Lake Hwy intersection needs. 2022 Perpetua engaged in and completed an initial phase of authorized stream diversion procedures, interfacing with site specific consultants, the USFS, EPA and other regulatory agencies. With consensus to best accomplish this they brought in highly respected IMCO Construction based in Ferndale, WA with a presence in Boise, ID. IMCO performs for many clients throughout the intermountain region.
- Mining is square one of many supply chains. There are numerous reasons why. Mining is embedded in all three supply categories- Product flow, information flow and finance flow. It's a spring board for vast commercial exchange, solid source tax revenue and giving back. The values of responsible mining become exponential, seemingly infinite. Best mine planning, best management practices, best engineered solutions, buy-in and acquired knowledge of committed personnel helps reduce mining impact and further humanity.
- Perpetua Resource's proposal has undergone extensive scientific analysis over a lengthy period. They make revisions, adjust as best determined and keep moving forward. Through leadership, innovation, consultation, proven practice, dialogue, agency and public inclusion- Rounded consensus, they have come a long way against very tall odds.
- A successful project would be a great thing for Idaho, and could help re-set the bar throughout the US mining industry. An investment of \$1.1 billion in Idaho can create immense commercial opportunity, family sustaining jobs, solid tax revenue and more. Numerous aspects of the project can be very well supported by qualified Idaho organizations and their partnering suppliers. Idaho workers should comprise much of the talented workforce.
- Many younger workers leave Idaho, displaced from home and families to other states for better pay and benefits. The energy sector and other large operators draw many skilled and entry level trades workers out of Idaho. SGP can help reverse this alarming trend giving young families and youth more avenue for prosperity. A payroll of \$40 million would boost tax revenue and expand overall economy through multi-level exchange.
- Sawmills have been the backbone of many small, rural Idaho communities for generations. BCC closures of sawmills starting with McCall in 1977, Cascade, Emmett, Horseshoe Bend and Council, the loss of the mill in Riggins and closure of Boise's Barber Mill created family sustaining job loss and displacement. The dearth of the timber and mining industries, earlier curtailment and financial issues of Tamarack Resort on West Mountain and the previous recession has decimated good paying jobs and family sustaining careers. Also reducing tax base, impacting public services and contributing to a nearly 16% unemployment in Valley County in 2010. The

aforementioned communities, absent Boise being similarly impacted. There is need for another solid source of comparable, stable employment such as the timber industry.

- Roundhouse impacts have led many Idaho workers to tourism, leisure or other industry with seasonal interruptions in the workplace- Lower wages, erratic shifts, reduced hours, minimal if any benefits and temporary jobs- Even numerous temporary jobs to make things work at home. Rural areas have suffered family sustaining job loss and exit of youth over wide area. As youth leave small community can lose rounded vibrancy. Decline can rapidly advance including infrastructure through reduced operating revenue. Commonly impacted are fire-fighting capabilities, paramedics, law enforcement and road departments. As per DEIS figure 3-1 on page 19 of 216- Government employment was the largest single contributor of non-farm jobs in Valley County at 31%, with leisure and hospitality next at 23%. Idaho counties of Valley, Adams, Idaho, Washington, Boise and Gem can certainly use a boost. As a good neighbor and strong partner, Perpetua Resources can be that boost.
- The many values within the SGP need brought to fruition. The US Forest Service can instill balanced environmental safeguards, partner in continuity of imperiled fish migration and in reclamation of the Stibnite area-While helping to strengthen the United States. These can all be achieved and any one of them is commendable. None of this will have come easily or inexpensively, even in singular. Perpetua Resources has a vision, a plan, substance, backing and forward momentum.
- While there are critics of the fish passage structure, it is species and site specific in design. There also exists similar function in operation within hydro-power and irrigation, although not closed top. Numerous of these concrete with fabricated steel systems are operating within and beyond the Pacific Northwest. They have capacity to be effective in all seasons supporting diverse flow rate.

There are successes in fish diversion structures around the world. Fish ladders at Columbia and Snake River dams are major components in Idaho fish returning home around physical barriers. These proven systems were cutting edge at one time too. There are also stainless steel manufactured passage structures for another imperiled anadromous species, the Pacific Lamprey, one of earth's oldest creatures- Thought to be nearly double the age of Sturgeon. The Lamprey passage structures are also species and site specific. Designed in large part through study at The Center for Ecohydraulics Research Center, the University of Idaho, located in Boise. In conjunction with the Department of Fish and Wildlife Services and the Northwest Fisheries Science Center, for the U.S. Army Corps of Engineers, Portland District, circa 2015. These Lamprey passage structures have gained traction in recent years in watersheds of the Columbia River system, including The Deschutes River.

The Deschutes is combined with the Crooked River and Metolius Rivers, impounded by the Round Butte Dam located in Jefferson County near Culver, Oregon. 2007-2009 there was a first of its design, downstream fish by-pass structure constructed at the dam. The new structure also has water mixing capabilities to facilitate temperature cooling in the lower Deschutes River during warm water temperature periods. In fairness there was dispute that the system reflected higher water temps on the lower Deschutes than was previous. The numbers were aligned with fisheries consult evaluations and balance of the overall system, including upstream needs. This

combined river system is a major tributary of the Columbia River with confluence at Biggs, Oregon. A person can find reference articles related to this by-pass structure.

- One can review SDEIS project map figure 3.12-8 showing steelhead intrinsic potential habitat within the mine site watershed. The very upper end of Meadow Creek into the East Fork being highly valued, and the middle section of the East Fork between Rabbit Creek and Fern Creek being medium valued potential habitat. One can discern these waters were at one time likely some of the best spawning habitat of the upper East Fork system, having been cut-off from migration. By eliminating streambed obstruction in the East Fork near the Yellow Pine Pit at Stibnite, SGP will have re-established continuity in migration for salmon, steelhead and bull trout in headwaters of the Salmon River. Perpetua's deeds put added substance to their plans. They continue to make monumental investment.
- Perpetua Resources has taken on responsibility of massive clean-up of long standing waste. No one else has proposal to restore the Stibnite area, much less have encompassing remedy in motion. Perpetua has initiative, are approachable, responsive and productive. They are benefactor to rural communities, and a friend to youth. Perpetua personnel respond to need. Many times urgently, in primary or sole responder capacity. In the rugged terrain of Idaho's back country that can be profound measure.
- Exploration opened the door to what we know today as Idaho, supported by trapping, hunting and fishing. Mining is Idaho's first major industry, embedded in state heritage. A significant amount of the SGP involves private lands ownership and/or control of pioneered mining claims which does not fall under the US Forest Service EIS, fittingly so. Possible re-opening the Stibnite area for critical need has been abstract theory for decades, generational at some levels.
- Local control and stigma are two possible reasons that Idaho didn't hanker for Stibnite to be cleaned up as a super fund site. CERCLIS ID, IDD980665459, Valley County, EPA region 10, 9-13-2001.
- Mining for critical need from the area in modern times is an inception retained from a very significant era in central Idaho. Now one can integrate technology, science, better manner and method with knowledge acquired over generations of prominent people having lived or operated in area. Perpetua Resources has pushed environmental concern, area repair, collaboration and partnership to the forefront. Their proposal includes vast value, descending generations are part of the equation- An ancestral vale.
- The 10,000 public comments submitted for the DEIS neared a sweeping 85% approval of the project. The Stibnite Gold Project has strong support locally from immediate stakeholders and expanding support through time- More generational interest. Most recently the Department of Defense endorsed the project with the first ever "Critical Minerals Award" nearing \$25 million in research funding under Title III of the Defense Production Act. Recognizing the imperative need to establish domestic production of critical minerals.

- The 64<sup>th</sup> Legislature (2018) of The State of Idaho passed with compelling vote House Joint Memorial No. 10, supporting SGP. The incoming 2023 Idaho legislature has a record (39) new members. Many of these lawmakers also continue to recognize values within SGP and vulnerabilities within U.S. supply chains, as have colleagues and constituents.
- Capital investment, astute communication, advanced design and balance have been a pursued success. With stewardship of innumerable people the 2021 MMP, the Burntlog route is a good path forward.

The many shared values within The Stibnite Gold Project, an increasing national need having been officially identified nearly a century ago, and extensive checks and balances warrant approval. In addition to the science, commitment and USFS analysis there is compelling endorsement to advance and effect 2021 MMP. I urge timely permitting.

Respectfully,



Dirk Christison

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