GreenVault

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"Gold gets dug out of the ground in Africa, or someplace. Then we melt it down, dig another hole, bury it again and pay people to stand around guarding it."
- Warren Buffett, 1998

Mining is the most environmentally destructive industry in the world and yet conservation efforts have failed to meaningfully impact the industry. For this reason, impact investors, who manage $500B, are unable to gain exposure to gold. GreenVault solves this problem by tokenizing unmined placer gold. Modern technology can prove how much gold is in a mine, so why waste resources and destroy nature? GreenVault audits and verifies the content of a mine and then issues "ORE" tokens to conserve it. Thus ORE is a carbon-negative currency backed by the conservation of placer gold-mines.

1. Background

More than 7000 years ago traditional gold mining became the only way to derive value from gold deposits[1]. Since gold does not rust or decay, nearly all of the gold that is mined is still owned today, and currently more than half of it remains in bank vaults. Most gold deposits have been mined over history, and so mining techniques have become increasingly invasive and destructive, especially with the use of modern chemicals.

The mining sector as a whole is the top producer of toxic waste. It is also one of the largest destroyers of biodiversity and is responsible for 10% of global greenhouse gas emissions. And that's just from documented mining. Illegal mining is undocumented, unregulated, and is monumentally more destructive. In Africa and South America, illegal mining projects frequently enslave children to use as laborers and subject them to toxic working conditions that dramatically decrease their life expectancy. Nonetheless, gold produced in these regions still finds its way into Western markets. Reducing the impact of gold mining is a high priority for environmental groups. However, they have failed to meaningfully improve the mining industry.

GreenVault, a newly-formed Decentralized Autonomous Organization (DAO), has a stellar team behind its environmentally-friendly and profitable solution to the problem of mining. GreenVault's core members consist of mining executives with decades of experience, geologists, conservationists, financial experts, and cutting-edge blockchain engineers. All of them aim to replace the destructive gold mining model with a new environmentally proactive cryptocurrency.

GreenVault has unearthed the potential of mining without mining. GreenVault can accurately measure the value of placer gold deposits and protect them within the earth. Rising global environmental concerns elevate the necessity of preserving our environment. A dramatic shift in the traditional gold mining industry will lay the foundation for a new era of gold currency where conservation can be more profitable than traditional placer gold mining. GreenVault will be issuing a digitized token ORE backed by a real asset to be traded on worldwide cryptocurrency exchanges. GreenVault's Trust will legally protect the land acquired through local governments, conservation organizations, and non-profit

[1] Rae, Alexander, "Exploration and Development of Placer Gold Projects"

organizations. Later sections of this report will expand on the potential of conserved gold, and shine a light on some of the weaknesses of the traditional gold mining model.

2.0 Changing the Current Model

2.1 Gold in Bank Vaults

There is not a need or requirement for more gold to go into bank vaults. There are more than an estimated 205,238 tonnes of gold sitting in bank vaults, government reserves, and personal collections, according to the World Gold Council. [2] The weight of the gold sitting in the reserves of the world's central banks alone—is an estimated 34,592 tonnes of gold, according to the World Gold Council in 2021. Try to picture 25,000 cars sitting in a bank vault. The largest known bank vault is the New York Federal Reserve in New York City, and accounts for 25% of the world's gold: The Bank of England contains another 20% of the world's gold.

Gold Above the Ground (approximate figures at the end of 2021)[3]

Jewelry	94,464 tonnes	46%
Bars & Coins (including gold backed ETFs)	45,456 tonnes	22%
Central Banks	34,592 tonnes	17%
Other	30,726 tonnes	15%

2.2 Tangible Gold

Tangible gold is a separate market. The top use for traditionally mined gold is jewelry, and industry (specially electronics) which is around 46% of the gold market, according to the World Gold Council.[4] Tangible gold, such as gold bars, is helpful in places where people don't have access to financial markets or do not trust their capital markets. While there remains a use for tangible gold, GreenVault will focus on the market for stored gold.

2.3 Mineable Gold

Gold Below the Ground is estimated at 54,000 tonnes.

Gold mine production is responsible for 75% of the gold supplied each year, according to the World Gold Council.[5] GreenVault plans to reach out to regions beyond North America to secure areas in Australia, South America, Africa, and Papua New Guinea for expanding its acquired land areas.

Worldwide Mined gold	2,500 to 3,000 tonnes added annually

[2] https://www.gold.org/goldhub/data/above-ground-stocks
[3] https://www.gold.org/goldhub/data/above-ground-stocks
[4] https://www.gold.org/
[5] https://www.gold.org/about-gold/gold-supply

3.0 GreenVault Provides an Alternative Mining Solution

3.1. Proof of Resource

GreenVault can prove the existence of gold without stripping the ground open. GreenVault is partnered with mining experts who have over 35 years of experience in prospecting and verifying gold deposits. They utilize a unique technology to bring gold deposits into verifiable production faster and cheaper than any traditional gold mining operations. This provides GreenVault with the unique ability to assess and acquire profitable gold mines at a very low price.[6]

There are several factors that contribute to the low cost of verification. GreenVault focuses on placer gold deposits that are formed and deposited by the flow of water. Gold deposits formed by the concentration of gravity in loose dirt are called "placer mines," and if the gold was further concentrated by the flow of water they are called "alluvial placer mines." Alluvial gold deposits come from weather, erosion, and the transportation of gold. The heavier gold remains with alluvial deposits, while the lighter minerals are swept away by water in a stream or river.

Placer mines are the easiest to estimate and extract, and thankfully comprise two-thirds of the world's gold mines.[7] We can sample the content of these types of mines to within a 15% margin of error. The shallow nature of alluvial gold deposits also helps minimize the environmental impact–as they are often found in zones only 10 to 20 feet thick. Only screening and gravity separation are required for recovering gold and other heavy minerals. No blasting or chemicals are needed to mine the mineralized gravel. No chemicals are used when processing the ore.

Samples are typically collected in 0.5-1.0 meter intervals while drilling and then sent to the on-site lab for processing. According to our exploration experts,"The drill geologist will observe and log soil types, identifying features such as color, lithology, roundness, and clay content. The samples are then weighed and measured by volume and processed to a high-grade concentrate of heavy minerals including the gold."

Since GreenVault is just extracting enough mineral deposits to match their assessments, the costs of many of the traditional stages of a mining are removed. GreenVault will operate similarly to gold mining companies in their exploration and development phase to determine as accurately as possible the size of the gold deposits, its quality, and the plans for extraction. However, there will no longer be a need to pay for the operational, decommissioning and post-closure phases of a gold mine.

3.2 Preserving Ecological Services

GreenVault is making a commitment to preserve ecological services in the land areas it acquires for conserved gold. In creating safe and secure protection for the gold in the earth's natural vault, it will enable GreenVault to give countries permission to continue to profit off the land acquired by GreenVault and utilize the land's resources to expand the land's value. Keeping the gold in the ground will have the propensity to increase farmland, allow animals to remain in their natural habitat, deter deforestation, and minimize the likelihood for diseases and contaminants to spread from leftover stagnant pools of water, which are caused by illegal mining.

[6] Rae, Alexander ""Exploration and Development of Placer Gold Projects"
[7] https://pubs.usgs.gov/bul/1857g/report.pdf

GreenVault's efforts to protect the gold in a natural vault, will also be able to mitigate other external costs, such as regulating greenhouse gas emissions, water pollution, deforestation, and other damages to ecological systems.

a. Carbon Emissions and Greenhouse Gasses

GreenVault will be built on top of blockchains that use a Proof of Stake consensus algorithm. These blockchains have almost no environmental impact. GreenVault will not just be carbon neutral it will be carbon negative—meaning that it will be actively lower than the carbon footprint of humans. Gold miners, using traditional methods, are among the top emitters of greenhouse gasses in the mining sector. By comparison, while traditional gold mining entities strive to be carbon neutral, GreenVault will be carbon negative. GreenVault's method of unmined gold exploration has low or negligible carbon emissions. Lower carbon emissions reduce carbon taxes, as well as adverse impacts on the environment.

b. Water Usage

In traditional gold mining, processing ore demands high water usage. In legal mining, 50,000 to 100,000 gallons of water can be required to extract an ounce of gold. Illegal mining can increase that feature to 75,000 to 150,000 gallons of water, according to Raedias Exploration.

c. Land Lease Extensions

Conserved gold provides an opportunity for the extended exploration of land leases. Their extension could lead to increased investment for the owners of the land if cash flows into their hands.

3.3 Transforming Weaknesses in Gold Mining

Traditionally mined gold leans toward having low accountability and rampant illegal mining. InSight Crime, a non-profit foundation dedicated to the threat of national and citizen security in Latin America and the Caribbean, wrote that traditional gold mining is "the fastest growing criminal economy." The consequences are far reaching, and can include the forced relocation of communities, the spread of criminal activities including sex trafficking, drugs and violence. GreenVault anticipates that conserved gold could have the potential to reduce the amount of illegal gold mining money used for money laundering and other criminal activities.

4.0 GreenVault Provides A Trading Solution

4.1 Digital Token Backed by an Asset

Flash forward to 2022, blockchain technology will allow investors to trade this new digitized token ORE for backing investment projects. With GreenVault, the gold will continue as always to stay underground: it's just this time instead of going into a vault—the gold can remain where it belongs—in the earth. We define "conserved gold" or "unmined gold" as gold that remains at its source in the earth and is not extracted. This paradigm shift could create a new era for gold, focusing on conservation.

4.2 Digital Token Valuation

Conserved gold will likely trade at a lower cost valuation on the world's cryptocurrency exchanges because expenses associated with mining stages are significantly reduced, as well as expenses typically allocated to mitigate environmental risks. GreenVault anticipates that by monetizing on-site resources without the costly extraction, the gold token will appreciate as new reserves are acquired. By extracting only a "sampling" of the gold, it is reasonable to assume that in-ground gold trades will be at a significant discount because ORE is an asset-backed cryptocurrency, and it is definable.
Historically, gold performs well during times of inflation, according to the World Gold Council.[8] When inflation rises, the price of consumer goods goes up, and the dollar loses value. Consequently, the value of gold, commodities, and other cryptocurrencies increase because they have no dependency on a central bank and their resources are limited.[9]

4.3 Benefits of a New Investor Option

Investors put $47 billion into gold ETFs in the first 10 months of 2020, up 203% from the previous year, according to Reuters Johannesburg/Toronto.[10] It's an example of how investors are willing to invest in gold set to be stored, and not only tangible gold. Investors will now have the option to invest in the digital token ORE, gain exposure to this asset class, add more diversity to their portfolios, and take advantage of the new blockchain technology while making an environmentally progressive choice.

5.0 Tokenomics

GreenVault's coin is called ORE, and there will be a fixed at 2 billion coins. Initially, the allocation will be split in half, 50% will go to the GreenVault's Decentralized Autonomous Organization (DAO) treasury and 50% will go to early investors, partners, and an ICO (initial coin offering) to the public. The treasury will be controlled by ORE coin holders and will be used to fund GreenVaults operations. The DAO treasury will eventually consist of ORE tokens, tokenized conservation rights, stable coins (USDC), as well as tokenized biodiversity and carbon credits.

Over the course of the first year, Manhattan Gulch will be adding in 1 million ounces of gold conservation rights into the GreenVaults treasury. This will add security to the coin as early investors begin to rush into the project. Future projects will then be funded by liquidating ORE, bio-credits, and carbon-credits from the treasury. Modeling the percentage of ORE which needs to be liquidated in order to fund future projects Greenvault anticipates that this number will exponentially decrease after a few successful projects drive up the price of the ORE coin. This means the early holders will not face large dilution events.

6.0 Conclusion

In summary, GreenVault proposes a gold investment that is fundamentally unique. GreenVault's vision is to make conservation profitable by incentivizing millions of ounces of gold while maintaining ecosystems and preserving the world's landscapes. A paradigm shift for the gold mining industry will be underway. GreenVault will launch a verifiable digital asset traded using blockchain technology called ORE in the spring of 2022. Investors can buy it on presale, or on major cryptocurrency exchanges. GreenVault's

[8] https://www.gold.org/goldhub/research/gold-outlook-2022
[9] White, Russell, "How Inflation Affects Gold Price" updated Jan. 2022
[10] https://www.reuters.com/article/us-mining-gold-emissions-idUKKBN2832ZN

executive office is located at 1337 Ocean Avenue in Santa Monica, CA. For more information go to: www.greenvault.finance

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