REFORMING THE MINING LAW OF 1812—H.R. 7580, "CLEAN ENERGY MINERALS REFORM ACT OF 2022"

LEGISLATIVE HEARING

BEFORE THE

SUBCOMMITTEE ON ENERGY AND MINERAL RESOURCES

OF THE

COMMITTEE ON NATURAL RESOURCES
U.S. HOUSE OF REPRESENTATIVES

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Thursday, May 12, 2022
U.S. House of Representatives
Subcommittee on Energy and Mineral Resources
Committee on Natural Resources
Washington, DC

The Subcommittee met, pursuant to notice, at 10 a.m., in room 1324, Longworth House Office Building, Hon. Raúl M. Grijalva [Chairman of the Committee] presiding.

Present: Representatives Grijalva (ex officio), Porter, DeGette, Huffman, Dingell; Herrell, Lamborn, Graves, Tiffany, and Westerman (ex officio).

Also present: Representatives Fulcher, Carl, and Moore.

Mr. GRIJALVA. The Subcommittee on Energy and Mineral Resources will come to order.

I am going to have the difficult responsibility today to sit in for the Chair of the Subcommittee, Mr. Lowenthal. And my apologies to the Ranking Member and to others for the fact that it won't be as smooth as he runs his meetings. So, thank you.

We are meeting today to hear testimony on the legislation, H.R. 7580, the "Clean Energy Minerals Reform Act of 2022."

Under Committee Rule 4(f), any oral opening statements at the hearing are limited to the Chair and the Ranking Minority Member, or their designees. This will allow us to hear from our witnesses sooner and help Members keep to their schedules.

Therefore, I ask unanimous consent that all other Members' opening statements be made part of the hearing record if they are submitted to the Clerk by 5 p.m. today, or at the close of the hearing, whichever comes first.

Hearing no objection, so ordered.

Without objection, the Chair may also declare a recess, subject to the call of the Chair.

And without objection, Representatives Moore, Carl, and Fulcher are authorized to question the witnesses in today's hearing.

As described in the notice, all statements, documents, or motions must be submitted to the electronic repository at HNRCDocs@mail.house.gov. Members physically present should provide a hard copy for staff to distribute by e-mail.

Please note that Members are responsible for their own microphones. As with our fully in-person meetings, Members are muted by staff only to avoid inadvertent noises.

Finally, Members or witnesses experiencing technical problems should inform Committee staff immediately.

With that, let me begin with my opening statement.

STATEMENT OF THE HON. RAÚL M. GRIJALVA, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ARIZONA

Mr. GRIJALVA. This week marks the 150th anniversary of the Mining Law of 1872. Usually, anniversaries are something to celebrate. But in this case it is a stark reminder that the time for change is long, long overdue.

The mining industry has seized the antiquity of this mining law as an opportunity to appropriate public lands, environment, Indigenous communities, and public health without any semblance of accountability. This is an industry that appears to think that America's public lands are its birthright, and they should be able to pick and choose where they get to dig and what they get to spoil, all without paying a cent of royalties. It is all backwards.

America's public lands belong to all Americans, not the mining industry. That is why legislation has been introduced to overhaul the Mining Law of 1872. And that is why I think it is as important as ever to put this into law. The Clean Energy Minerals Reform Act will improve the way we do mining in several fundamental ways.

First, the bill puts a royalty in place for all minerals extracted from public lands. Under the current law, mining companies don't pay a single cent to use and to appropriate from our public lands. Not even Big Oil has a deal that is slanted that much toward its industry.

Second, the bill protects special places and brings mining under the land-use planning process. When we talk about threats to the Grand Canyon, or the Boundary Waters, or Indigenous sacred sites like Oak Flat or Bears Ears, it all comes back to the fundamental flaw in the mining law that tilts the balance of power away from land managers acting on behalf of the American people and toward the mining industry's corporate interests and profit line. My bill gives power back to land managers and sets benchmark environmental standards for permitting and reclamation.

Third, the legislation protects tribal sovereignty and requires minimal tribal consultation. For too long, tribes have been overlooked when it comes to land management, and mining is no exception. This bill ensures that Federal agencies hear directly from tribes that are impacted by mining projects and mining development.

And, finally, the bill finishes the work of the Bipartisan Infrastructure Law by providing a dedicated source of funding for abandoned hardrock mine cleanup. While that law moved us in the right direction, hardrock mining cleanup didn't get the funding. My bill makes sure that the industry, not the taxpayer, foots the bill for this toxic legacy of pollution.

There is a lot of interest in Congress and the Administration right now about critical minerals, especially minerals that are

important for renewable energy and our clean energy transition. But we shouldn't sacrifice tribal sacred sites, wilderness, national forests, and public health just because the metals coming from the ground will go into a wind turbine, or a solar panel, or an electric vehicle battery. I think the Administration gets it. We all want to see mining done under the best possible labor and environmental standards, but that isn't possible without a comprehensive rewrite of the mining law.

I hope that today's hearing makes it clear why this legislation is so necessary, but also highlights the places where we all might agree.

I look forward to hearing from the Biden administration and our invited witnesses on the legislation, and I want to thank them all for being here and for taking the time.

[The prepared statement of Mr. Grijalva follows:]

PREPARED STATEMENT OF THE HON. RAÚL M. GRIJALVA, CHAIR, FULL COMMITTEE ON NATURAL RESOURCES

This week marks the 150th anniversary of the Mining Law of 1872. Usually, anniversaries are something to celebrate, but in this case, it's a stark reminder that the time for change is long overdue.

The mining industry has seized the opportunity to wreak havoc on our public lands, environment, Indigenous communities, and public health—without any semblance of accountability.

This is an industry that appears to think that America's public lands are its birthright, and they should be able to pick and choose where they get to dig and what they get to spoil, all without paying a cent of royalties.

They have it backwards. America's public lands belong to all Americans, not the mining industry.

That's why I introduced legislation to overhaul the Mining Law of 1872. And that's why I think it's as important as ever to put it into law.

My Clean Energy Minerals Reform Act will improve the way we do mining in several fundamental ways.

First, this bill puts a royalty in place for all minerals extracted from public lands. Under the current law, mining companies don't pay a single cent to use our public lands.

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Third, this legislation protects tribal sovereignty and requires meaningful tribal consultation.

For too long tribes have been overlooked when it comes to land management, and mining is no exception. This bill ensures that Federal agencies hear directly from tribes that are impacted by mining projects.

And finally, the bill finishes the work of the Bipartisan Infrastructure Law by providing a dedicated source of funding for abandoned hardrock mine cleanup.

While that law moved us in the right direction, hardrock mine cleanup didn't get any funding. My bill makes sure that industry, not taxpayers, foots the bill for their toxic legacy of pollution.

There's a lot of interest in Congress and the Administration right now about critical minerals—especially minerals that are important for renewable energy and our clean energy transition.

We shouldn't sacrifice tribal sacred sites, wilderness, national forests, public health, just because the metals coming from the ground would go into a wind turbine or a solar panel or and electric vehicle battery.

I think the Biden administration gets it. We all want to see mining done under the best possible labor and environmental standards but that isn't possible without a comprehensive rewrite of the Mining Law.

I hope that today's hearing makes it clear why this legislation is so necessary, but also highlights the places where we all might agree.

I look forward to hearing from the Biden administration and our invited witnesses on the legislation. Thank you all for being here.

Mr. GRIJALVA. With that, let me recognize Representative Herrell, who is sitting in for Ranking Member Stauber today. We are both designees, per se, today.

Ms. Herrell, the floor is yours.

STATEMENT OF THE HON. YVETTE HERRELL, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW MEXICO

Ms. HERRELL. Thank you so much, Mr. Chairman. I appreciate the opportunity to be here in person with you and take the place and fill the large shoes of Congressman Stauber. But I want to thank the witnesses for being here in person and virtually, as well.

And, Mr. Chairman, you have heard me and my colleagues discuss hardrock mining many times this Congress. But as you know, the issues go back many years. Concern about the rising demand for minerals, the global dominance of China, and the pending supply chain crisis pre-dates my time in this Committee.

Now, the truth is undeniable. Demand for copper, lithium, cobalt, and dozens of other minerals is rapidly outpacing supply. This is largely due to the projected growth of the renewable energy as electric vehicles, battery storage, and wind and solar power cannot be built without these rare and valuable resources.

The aggressive renewable goal set by the Biden administration and other governments are exacerbating the coming shortage. We cannot recycle our way out of this problem. The International Energy Agency predicts demand for critical minerals could increase by six times by 2040. The question is not do we need more mining, but rather where and how should we do it.

Unfortunately, the bill we are considering today, H.R. 7580, ignores these ever-worsening supply chain concerns. H.R. 7580 is framed as a reform of the Mining Law of 1872 for renewable energy minerals. In reality, this bill would permanently harm our domestic mining sector and cripple our access to minerals for renewable energy or any other purpose.

I have been pleased to see the Biden administration acknowledge the link between mining and renewables. But, unfortunately, much of what the Biden administration says directly conflicts with what it does. For instance, President Biden hosted a roundtable in February to discuss the importance of responsible domestic mining. The Administration even issued a statement saying global demand for these critical minerals is set to skyrocket by 400 to 600 percent, citing the importance of expanding domestic mining, production, processing, and recycling of critical minerals and material.

At the same time, we have seen the Department of the Interior cancel decades-long mineral leases in my friend Congressman Stauber's district, endangering one of the most promising copper, nickel, cobalt projects in the world. The Department of Ag is trying

to withdraw that entire area in northern Minnesota from mineral development, without even letting the NEPA process take place.

The Administration and Congressional Democrats continue to fight the Resolution Copper Project in Arizona, despite a Federal land exchange and many years of environmental review and tribal consultation.

Additionally, a proposed critical habitat designation for Tiehm's buckwheat now threatens a lithium mine in Nevada, even though worldwide demand for lithium will double by 2025.

And examples go on and on. We need to decide what policy choices are in the best interest of our country.

The United States is, hands down, one of the best places to mine, due to the richness of our resources, our skilled workforce, and our world-class environmental and labor standards. H.R. 7580 would unquestionably take us further away from our technological goals and destroy any chance at competitiveness on the world stage.

At a time of increasing international instability and the threat of China looming ever closer, legislation like this is more harmful than ever.

And to be submitted to the record, Mr. Chairman, I would like to submit Ranking Member Stauber's statement for the record.

Mr. GRIJALVA. Without objection.

[The prepared statement of Mr. Stauber follows:]

PREPARED STATEMENT OF THE HON. PETE STAUBER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MINNESOTA

Thank you, Chairman Lowenthal. We need mining in America.

We need it for home heating, for running air conditioners, for cell phones, for dialysis machines, for fighter planes, and for infinite more applications.

And if we don't mine it here, we import it. And we import the raw materials for everything I just mentioned from places like China, Russia, and the Congo.

But we don't have to. America has an abundance of natural resources, much of which is on Federal lands. In fact, my district alone contains 95 percent of America's nickel, 88 percent of our cobalt, and more than one-third of our copper.

However, today in the Energy and Mineral Resources Subcommittee, we are debating legislation that, if passed, would essentially ban mining on Federal lands in America.

It would endanger American energy independence, cripple our already failing domestic supply chains, and continue to drive up costs for Americans.

Let me be clear: this bill is designed to make mining in America all but impossible, not easier.

And the Democrats know it. That's why they've embarked on an aggressive rebrand, hand in hand with the Administration, and are now calling their anti-mining legislation the so-called Clean Energy Minerals Reform Act.

But we've been down this road before, and Americans know better. Similar legislation died on the vine last year, and it'll die on the vine again, because they can't even get all Democrats in Congress behind this.

Previously, it was known as the "Hardrock Leasing and Reclamation Act", and it's frequently referred to as "Mining Law reform."

Meanwhile, President Biden has issued recommendations that closely track with the unpopular legislation we're debating here today, along with rolling back common-sense permitting reforms.

And at the same time, he's offered a reinterpretation of the Defense Production Act, which did nothing to make mining easier, and he offered a toothless "Permitting Action Plan" just yesterday.

So, why are Democrats running from their own policies and issuing these aggressive rebrands?

I'll tell you why. Americans want mining in America, but Democrats don't. So they're hiding behind cute little bill title changes and weak, beltway policy memos out of the White House.

Every single policy supported by Biden and the Democrats have made Americans' lives harder and more expensive. Just try to order an electric vehicle right now. Even if you wanted one, it'll take months, if not years.

And that's because it is *hard* to mine domestically in this country. Here's an example: The PolyMet project is approaching *20 years* of permitting and litigation. It is a copper, nickel, and cobalt project—a lot of what you need for an electric vehicle.

And two Democrat administrations have lauded this project. The Obama administration's EPA gave the project the highest rating possible for a mine, the same as the Stillwater Bridge or other popular projects in Minnesota.

And the Biden administration mentioned it in it's 100-day Supply Chain Review as a potential option for nickel.

But what did this Administration do? It remanded the very permit given high marks *when Joe Biden was Vice President* and the same project he mentioned as a viable nickel source just last year.

At the same time, the legislation before us today actually adds two more duplicative permits on top of an already impossible timeline.

More reviews, more extensions, and more permits mean more delays for American mining.

Therefore, we will be more reliant on horrific supply chains, like children in the Congo mining cobalt by hand. And, at the end of the day, more delays for Americans to receive their needed products.

The bill also ignores a basic understanding of geology and implements an oil-and-gas style leasing system. In the mining sector, only about 1 in every 1,000 discoveries results in a mine, as opposed to accessing a seam or well.

And, under the bill, every mine that invests multi-billions of dollars; survives a multi-decade permitting scheme and lawsuits from radical activists; and also happens to be a 1 in 1,000 exploration lottery ticket for a viable deposit, is then subject to a punitive 12.5 percent royalty.

Why would any company want to invest in American resources under such a hostile scheme put in place?

And that is the goal here. This legislation lengthens permitting timelines, puts in place the wrong leasing system, and levies a royalty to dissuade any investment and push mining abroad.

In fact, Chairman Grijalva, I'd like to offer you *another* rebrand for your legislation: How about the *UNclean Energy Minerals from China, Russia, and Child Slaves in the Congo Act?*

I think that fits a little better. Thank you, and I yield back.

Ms. HERRELL. And also letters of opposition to H.R. 7580 and statement policies from Eureka County Board of Commissioners, Elko County Board of Commissioners, Humboldt County Board of Commissioners, Pershing County Board of Commissioners, Western Governors Association, Coeur Mining, American Exploration & Mining Association, National Mining Association, Arizona Mining Association, and Arizona Chamber of Commerce.

Mr. GRIJALVA. Without objection, so ordered.

Ms. HERRELL. Thank you, Mr. Chair, and I yield back.

Mr. GRIJALVA. Thank you. Let me now invite the Honorable Steven H. Feldgus, Deputy Assistant Secretary for Land and Minerals Management for the Department of the Interior. Steve, it is great to see you in the hearing room again, and you will be recognized for 5 minutes for your statement.

STATEMENT OF THE HON. STEVEN H. FELDGUS, PH.D., DEPUTY ASSISTANT SECRETARY FOR LAND AND MINERALS MANAGEMENT, DEPARTMENT OF THE INTERIOR, WASHINGTON, DC

Dr. FELDGUS. Thank you very much. Chair Grijalva, Ranking Member Herrell, members of the Subcommittee, my name is Steve Feldgus. I am the Deputy Assistant Secretary for Land and Minerals Management at the Department of the Interior. Thank you for the opportunity to discuss the need to reform the General Mining Law of 1872 and Chair Grijalva's legislation, the Clean Energy Minerals Reform Act of 2022.

Exactly 150 years and 2 days ago, President Ulysses S. Grant signed the General Mining Law of 1872. Much like the Homestead Act that was signed 10 years earlier, the mining law was designed to encourage the settlement of the American West by giving away public lands and resources at little to no cost. The law allowed citizens to freely explore public lands for valuable minerals, such as gold, silver, and copper, to stake a claim if minerals were discovered, and to patent that claim, gaining legal title to the land and all the minerals contained within it for as little as $2.50 an acre.

The Mining Law of 1872 did not, however, account for the legacy of environmental degradation that mining would have on its surrounding communities, nor did it provide for royalties or a comprehensive system to evaluate, permit, develop, and reclaim mines to ensure sustainable mining and healthy public lands.

Over the last 150 years, the management of our public lands has evolved to meet the needs of our nation, with the Department of the Interior serving as a steward of our public lands and resources for future generations. Many of our laws have changed with the times. The Homestead Act was repealed, but the Mining Law of 1872 remains.

To be sure, Congress has updated the laws governing minerals such as oil and gas, coal, and sand and gravel, many of which were originally covered by the Mining Law of 1872. But it has not done so for some of our most valuable and critical hardrock minerals, and in particular the minerals that are so important for a clean energy transition.

We can recognize the historic contribution that mining has played in this country, but we must also acknowledge the limits that exist today from relying on such an antiquated law. The Biden-Harris administration recognizes the important role mining will continue to play in the modern economy, and the growing need for responsibly sourced critical minerals to realize a clean energy economy, combat climate change, and ensure the security of our nation. These are 21st century imperatives, and they will be difficult to achieve by relying on a relic of the 19th century designed during the Grant administration for a United States with different needs, different priorities, and different challenges.

This is why President Biden has outlined a whole-of-government approach to ensure domestic mining is sustainable, responsible, and efficient. This includes signing Executive Order 14017, which directed an assessment of the supply chains for critical and strategic minerals essential to the economic and national security of the United States. And the President also recently announced his

intention to use the Defense Production Act to support the responsible production of five critical minerals needed for large-capacity batteries, which will help accelerate the clean energy transition in the short term.

The supply chain review has also made it clear that the mining law must be reformed. In response, the Department of the Interior formed an interagency working group tasked with reviewing existing mining laws, regulations, and permitting processes to make recommendations on what reforms are needed. Two days ago, on the 150th anniversary of the mining law, that working group hosted a meeting that brought together the mining industry, tribes, states, environmental organizations, and others to discuss the fact that everyone has something to gain from reform of the mining law: tribes, taxpayers, mining companies, mining communities, everyone.

This is just the start of an extensive series of public input and comment sessions to ensure an inclusive process, because the purpose of the working group is to listen to all of these voices, and learn, and try to figure out how we can find the common ground where everyone benefits.

This working group is being guided by the Administration's fundamental principles for domestic mining reform, which lists the key values that will drive the efforts to update the country's mining regulations, laws, and permitting processes. These principles would ensure that new production meets strong environmental, community, and tribal consultation standards during all stages of mine development, while improving the efficiency and outcomes of the permitting process.

These reforms would ensure that taxpayers, for the first time ever, receive a fair return for the extraction of valuable metals from public lands and give the American public confidence that the minerals and materials used in our electric vehicles, smartphones, solar panels, and other technologies are sourced under responsible social, environmental, and labor standards.

Many of these principles are embodied in H.R. 7580, the Clean Energy Minerals Reform Act, and we commend Chair Grijalva and his co-sponsors for their work on this landmark piece of legislation.

Thank you again for the opportunity to be here today. We look forward to working with Congress, states, tribes, the industry, and the general public to gather ideas and forge a new path forward. I am happy to answer your questions.

[The prepared statement of Dr. Feldgus follows:]

PREPARED STATEMENT OF STEVE FELDGUS, PH.D., DEPUTY ASSISTANT SECRETARY, LAND AND MINERALS MANAGEMENT, U.S. DEPARTMENT OF THE INTERIOR

Chairman Lowenthal, Ranking Member Stauber, and Members of the Committee, thank you for the opportunity to provide testimony on President Biden's vision for a whole-of-government effort to reform the General Mining Law of 1872 (Mining Law) and to promote the sustainable and responsible domestic production of minerals and to ensure a fair return to the taxpayer.

Tuesday marked the 150th anniversary of the Mining Law. At the time of its enactment, Congress designed the Mining Law to encourage mineral exploration and development on Federal lands and the settlement of the West. The law allowed citizens to explore public lands for valuable minerals (such as gold, silver, and copper), to stake a claim if minerals could be extracted at a profit, and to patent the claim—gaining legal title to the land for a nominal cost—to encourage settle-

ment. Congress did not, however, account for the legacy of environmental degradation that mining would have on its surrounding communities, nor did it provide for royalties, or a comprehensive system to evaluate, permit, develop, and reclaim mines to ensure sustainable mining and healthy public lands for future generations. In short, it was very much legislation of its time.

Over the last 150 years, the management of our public lands—through the Department of the Interior (Department) and its Bureaus—has evolved to meet the needs of our nation and to serve as a steward of our public lands and resources. While we can recognize the historic and defining contribution that mining played in settling the West, we also must recognize the limits that exist today from relying on such an antiquated system. The Administration recognizes the important role mining will continue to play in the modern economy and the growing need for responsibly sourced critical minerals to meet our climate, infrastructure, and global competitiveness goals, but believes that the Mining Law of 1872 provides an inadequate structural framework and serves as an impediment to a robust, environmentally, and socially responsible, sustainable domestic mining industry.

We appreciate the work the Sponsor and the Committee have done to propose reforms to the Mining Law through H.R. 7580, the Clean Energy and Mineral Reforms Act. We look forward to continuing to work with Congress as the Administration undergoes its review of the Federal mining program and considers proposals for potential mining reforms.

Laws Governing Mining on Federal Lands

For almost 150 years, the Mining Law has allowed for domestic mineral production on Federal lands. Initially, the Mining Law provided disposal authority with no return to the taxpayer for development of nearly all mineral resources. In 1920, Congress enacted the Mineral Leasing Act (MLA), removing petroleum, natural gas and other hydrocarbons, as well as phosphates, sodium, sulfur, and potassium, from disposal under the Mining Law and creating a leasing-based system for these minerals. In 1947, the Materials Act removed "common varieties" of certain widespread minerals of common occurrence, such as sand and gravel, from disposal under the Mining Law and instead made them subject to sale or permit. Today, the minerals subject to disposal under the Mining Law include both metallic minerals, such as gold, silver, and copper, and various industrial minerals such as gypsum and bentonite.

While the MLA and the Materials Act established a process to provide the taxpayer with a financial return for those minerals that are disposed of through sale or lease, minerals managed under the Mining Law remain without similar consideration. Some fees are required, including one-time fees to record mining claims with the Bureau of Land Management (BLM) and a yearly maintenance fee unless certain waiver requirements are met. But the Mining Law does not require operators to report the quantity or type of minerals that are produced by their operations to the BLM and, most importantly, they pay no royalties to the U.S. government when they remove valuable mineral resources from public lands—in sharp contrast to royalty payments required for the extraction of oil, gas, coal, and other leasable minerals from public lands.

Management & Regulation of Mining Under the Mining Law

Management of mineral development under the Mining Law has evolved over time with the need to balance competing uses of public lands. Prior to 1981, there were no regulations in place to regulate prospecting, exploration, and mining activities under the Mining Law on BLM-administered public lands. The BLM's surface management regulations promulgated under the Federal Land Policy and Management Act (FLPMA) in 1981 and revised in 2001 provide a framework to prevent unnecessary or undue degradation of public lands during mining and reclamation under the Mining Law. To ensure that mining operations on public lands occur in an environmentally sound manner, operations must comply with other state and Federal laws, including the Clean Water Act, Clean Air Act, Endangered Species Act, Wilderness Act, and the National Historic Preservation Act. Certain exploration operations, known as notice-level operations, do not require Federal approval and therefore are not subject to the National Environmental Policy Act.

Per FLPMA, the BLM is responsible for recording and adjudicating mining claims made on Federal lands. The BLM is also responsible for conducting mineral examinations to determine if the mining claim is a valid existing right under the Mining Law. Additionally, the BLM administers the collection of the annual maintenance fee for each mining claim, as well as location fees for new mining claims. In FY

2020, the BLM collected a total of over $65 million in fees associated with nearly 391,000 active mining claims on Federal lands.

The Mining Law does not require reporting the type and quantity of minerals produced on Federal lands to the Department. Therefore, the Department is only able to track notices or authorized plans. At the end of April 2022, there were 578 active mining plans of operation and another 867 active mining notices on Federal lands. The Department does not have an accurate account of total production occurring on Federal lands, including critical minerals, from these plans and notices. The Department also notes that, as mentioned previously, the Mining Law does not require a royalty for the minerals produced on Federal lands; therefore, the public is not receiving a fair return for the development and use of these Federal resources.

FLPMA also requires the BLM to inventory abandoned mine sites on public lands and provides the authority to withdraw Federal lands from the operation of the Mining Law, subject to valid existing rights. Currently, there are over 24 million acres—just under 10 percent—of BLM-managed lands withdrawn from mineral entry.

Reclamation of Mining Operations Under the Mining Law

Reclamation of mineral development was not a requirement under the Mining Law when enacted 150 years ago. Pursuant to FLPMA, the BLM issued regulations in 1981, which were amended in 2001 and require notices and plans of operation to include detailed reclamation plans. These regulations also require operators to provide financial guarantees covering the full cost to reclaim mining operations. Additionally, the BLM's regulations allow the agency to require an operator to establish a trust fund or other funding mechanism to ensure the continuation of long-term treatment to achieve water quality standards and for other long-term, post-mining reclamation and maintenance requirements after a mine is closed. These regulations provide the BLM with a mechanism to provide for protection of the environment after mining has concluded.

In response to Government Accountability Office recommendations, BLM implemented a tracking system under which BLM certifies each fiscal year that the reclamation cost estimates for proposed and operating mines have been reviewed and are sufficient to cover the cost of reclamation. Currently, the BLM holds financial guarantees of $3.3 billion which is held to fund the costs of reclamation of mining operations on BLM-managed public lands. Furthermore, the BLM continuously reviews reclamation bonding requirements.

Reforming Domestic Mining

Since taking office, President Biden has outlined a whole-of-government approach to ensure that U.S. mining activity is sustainable, responsible, and efficient. Understanding that resilient supply chains are necessary to revitalize and rebuild domestic manufacturing capacity while maintaining America's competitive edge in research and development, in February 2021 the President issued Executive Order (EO) 14017, "America's Supply Chains." The EO directed a government-wide approach to assess the vulnerabilities in, and strengthen the resilience of, critical supply chains of various goods, including critical and strategic minerals essential to the economic and national security of the United States.

The EO also initiated a 100-day supply chain review requirement, and the Administration published its findings in a report in June 2021 titled, "*Building Resilient Supply Chains, Revitalizing American Manufacturing, and Fostering Broad-based Growth*." Following the 100-day supply chain review, the Department released an updated list of 50 critical minerals in February 2022 as required by the Energy Act of 2020.

While affirming the significant role critical minerals play in our national security, economy, renewable energy development, and infrastructure, the review also made clear the need to reform the Mining Law to protect the environment, impacted communities, and Tribal Nations while strengthening and updating the permitting system to ensure certainty and timeliness of adjudication for project sponsors. The report noted: "We recommend that the government, working with private sector and non-governmental stakeholders, encourage the development and adoption of comprehensive sustainability standards for essential minerals, such as lithium, cobalt, nickel, copper, and other minerals. We further recommend establishing an interagency team with expertise in mine permitting and environmental law to identify gaps in statutes and regulations that may need to be updated to ensure new production meets strong environmental standards throughout the life cycle of the project; ensure meaningful community consultation and consultation with Tribal Nations, respecting the government-to-government relationship, at all stages of the mining

process; and examine opportunities to reduce time, cost, and risk of permitting without compromising these strong environmental and consultation benchmarks."

Consistent with the recommendation of the 100-day review, on February 22, 2022, the Department announced the launch of a new interagency working group, comprised of experts in mine permitting and environmental law from across the Federal Government, to review existing mining laws, regulations, and permitting processes. This working group will complement the effort outlined in the Bipartisan Infrastructure Law (BIL; Public Law 117-58), which requires the Department and the U.S. Department of Agriculture to submit a report to Congress identifying legislative and regulatory recommendations to increase timeliness of permitting activities for exploration and development of domestic critical minerals.

The working group will host extensive public input and comment sessions to ensure an inclusive process and will work with relevant agencies to initiate updates to mining regulations. These efforts began two days ago, on May 10th, the 150th anniversary of the signing of the Mining Law, with a productive and constructive meeting that brought together the mining industry, Tribes, states, environmental organizations, outdoor recreation groups, automobile manufacturers, labor unions, and legal experts with senior Administration officials to discuss the common benefits—for both industry and impacted communities—that can be obtained through mining reform. The working group looks forward to engaging with Members of Congress as well to consider your ideas and proposals, such as those in H.R. 7580, as it conducts its deliberations and develops recommendations.

Additionally, in February, the President also authorized the use of the Defense Production Act to support the responsible production of five critical minerals needed for large capacity batteries (lithium, cobalt, graphite, nickel and manganese). The authorization will help accelerate the transition to clean energy economy in the short-term. As the President said in remarks on Securing Critical Minerals for a Future Made in America, "As we build the economy, we're going to build it around working Americans. That means making sure that labor is at the table, that Tribes and the people from the community are at the table from day one, and that environmental protections are paramount." With this effort, the President has made clear his commitment to environmentally responsible and sustainable mining.

Fundamental Principles for Domestic Mining Reform

In concert with the announcement of the working group, the Administration released its "Fundamental Principles for Domestic Mining Reform" to identify the key values that will drive the efforts to update the country's mining regulations, laws, and permitting processes. These principles, summarized below, are necessary to ensure that new production meets strong environmental and community and Tribal engagement standards during all stages of mine development, from initial exploration through reclamation, while improving the efficiency and outcomes of the permitting process.

Establish Strong Responsible Mining Standards

Regulatory and legislative mining reform should create a level playing field by establishing strong environmental, sustainability, worker, health and safety, Tribal consultation, and community engagement standards for mineral exploration and development. Americans should know that the minerals found in their cars, phones, and other products adhere to strong, responsible mining standards. This includes establishing specific up-to-date financial assurance, operational, performance, and reclamation standards that require protection of the environment during exploration, discovery, active mining, reclamation, and post-closure.

These standards should also reduce the risk and consequences of legacy pollution, decrease the likelihood of catastrophic events, such as tailings impoundment failures, and protect taxpayers against companies that go bankrupt and leave operations inadequately closed. In addition, efforts must also be in place to apply the standards to minerals from foreign sources that may compete in the domestic market, by including reliable traceability of the minerals and materials that enter the U.S. economy.

Secure a Sustainable Domestic Supply of Critical Minerals

Domestic availability of critical minerals touches all points of the supply chain: resource, processing, manufacturing, use, and recycling. The transition to clean energy is projected to create a 400 to 600 percent increase in global demand for key critical minerals like lithium, graphite, cobalt, and nickel to meet our climate goals, and for some minerals the increase in demand will be many times higher. Currently, the United States is reliant on Chinese imports for many of these minerals in processed form.

The President is using all available tools, such as invoking the Defense Production Act, but more will need to be done to meet current and future demand, and to break our reliance on foreign sources and provide good jobs for American workers. Mining reform should assure that a reliable supply of critical minerals can be provided both through environmentally and socially responsible mining and processing projects, and other sustainable sources, such as recycling and recovery from unconventional sources, including mine wastes, mine tailings, mine-influenced waters, and coal ash. Provisions for recovery and reprocessing of critical minerals must ensure existing selected and implemented remedies or reclamation measures are protected and recovery does not exacerbate existing site conditions.

Prioritize Recycling, Reuse, & Efficient Use of Critical Minerals

The recycling, reuse, and efficient use of existing mineral assets (wastes and recyclable materials) should be prioritized, and commercially viable methods supported and promoted. The resources available from these sources should be assessed and relied upon, where possible, before developing new sources. This includes developing recycling programs; designing products that facilitate recycling at end-of-use; reprocessing mine waste, appropriate treatment of mine influenced waters, and ash material; and promoting other engineering and innovation advancements, such as reducing the quantity of inputs and identifying substitutes for critical minerals to reduce the need for new mining of raw minerals and reliance on unsustainable sources.

Provide Permitting Certainty

Any new law covering mineral extraction, or updates of existing mining regulations, should provide clear, consistent standards and processes for mine exploration, operations, closure, and plan approvals on public land. Consistent with a whole-of-government approach, Federal agencies will improve interagency cooperation and coordination during environmental review and permitting. This will be done in concert with project proponents, state and local governments, as well as Tribal Nations to improve permitting times, reduce conflicts with local communities, and improve environmental, social, and economic outcomes.

Adopt Fair Royalties So Taxpayers Benefit

The Administration urges Congress to establish a royalty for all minerals extracted from public land in order to provide a fair return to taxpayers. The Department notes that hardrock mining is the only extractive industry on U.S. public lands that does not pay a royalty, while states and virtually all other countries charge royalties on hardrock mines. Proceeds from these royalties should be invested to prevent and mitigate adverse environmental and social impacts, improve environmental and economic outcomes for underserved communities, improve permitting and compliance, advance efficient and clean mining and remediation technologies, and support Tribal Nations and Tribal communities impacted by development on public lands.

Establish a Fully Funded Hardrock Mine Reclamation Program

Reclamation of mineral development was not a requirement under the Mining Law when enacted 150 years ago. Consequently, there are over 500,000 legacy mining sites in the western United States alone. Congress should establish a durable program to fund the remediation of legacy abandoned hardrock mining sites through reclamation fees, just as occurs with the coal industry and abandoned coal mines. These fees should support well-paying jobs to remediate the environmental impacts of abandoned mine sites and assist in community redevelopment.

Additionally, legal certainty is needed for Good Samaritans working to remediate legacy pollution, including providing for permits and, as appropriate, exemptions from or specialized provisions of environmental laws and regulations that may otherwise dissuade Good Samaritans from undertaking cleanup activities. This should include consideration of projects that may responsibly extract critical minerals from legacy mine wastes, thereby avoiding the need for additional greenfield mine development.

Conduct Comprehensive Planning

Like other uses of public lands, mining should be governed by comprehensive Federal land-use assessments and planning. The right to explore and develop mineral resources on public lands not otherwise withdrawn from mining must be managed to ensure appropriate and sustainable use of public resources. Planning, assessment, mine approval, and permitting decisions by Federal agencies should be conducted in a timely, transparent, and responsible manner to avoid, minimize, and mitigate for impacts generated by mining operations over the short and long term.

In addition, any legislative reforms must ensure that environmental review and safeguards, such as provided by the National Environmental Policy Act, Clean Water Act, Clean Air Act, Endangered Species Act, and associated regulations, are not circumvented, repealed, or weakened for the purposes of mining, regardless of the importance of the targeted resource. Processes must also meet government-to-government responsibilities for consultation with Tribal Nations.

Protect Special Places

Some areas must be off-limits to mining and protected from mining impacts. Our Federal land managers, in consultation with other decision makers, must have discretion to reject projects that threaten sensitive ecosystems, Tribal resources, and communities where pollution prevention and mitigation are not possible. Agencies should retain and use their authority to withdraw lands from mineral entry where necessary.

Solicit Community Input & Conduct Tribal Consultation

This Administration is committed to regular, meaningful, and robust consultation with Tribal Nations. This includes project-level public engagement processes prior to any key decision-making regarding mining. Land use planning processes must also allow upfront input from a broad set of stakeholders including local and state governments, workers, residents, and Environmental Justice communities about whether and under what conditions mining might occur.

Utilize the Best Available Science & Data

Any decisions on development should be guided by the extensive public and private data collected to map critical mineral resources, identify key fish and wildlife habitat, safeguard workers, protect community health and safety, and implement best practice avoidance and mitigation strategies. Agencies should, as appropriate, work with Indigenous traditional ecological knowledge holders and Tribal Nations to assure that their knowledge and expertise are considered and included in the process. This data should also inform public engagement and Tribal consultation.

Build Civil Service Expertise in Mining

The Department notes that in recent years Federal agencies have lost mining expertise due to retirements and downsizing. To achieve the Administration's goals to reform mining, Federal agencies need to rebuild expertise and fully staff agencies and offices, both through hiring and interagency coordination. This will ensure that agencies have sufficient qualified personnel and resources to accomplish resource assessments, environmental reviews, permitting, and consultations in an efficient and timely manner, as well as vigorously enforce our laws and regulations.

Conclusion

The Department looks forward to working with Congress and this Committee to continue to build areas of consensus around potential reforms to our mining laws. We recognize the need for environmentally and socially responsible and sustainably mined domestic production of mineral resources to help transition the country to a clean energy economy and to meet national security objectives. I appreciate the opportunity to testify today and would be happy to answer any question.

QUESTIONS SUBMITTED FOR THE RECORD TO DR. STEVE FELDGUS, DEPUTY ASSISTANT SECRETARY FOR LAND AND MINERALS MANAGEMENT, DEPARTMENT OF THE INTERIOR

Questions Submitted by Representative Stauber

Question 1. If the administration is truly interested in increasing domestic production of critical minerals, why have we seen the Department of the Interior take consistent steps to withdraw lands or otherwise block new mines in places like Northern Minnesota, Arizona, and Nevada?

Answer. The President has been clear on his support for responsible and sustainable domestic development of critical minerals, and the Department is following his lead. Under the Bureau of Land Management's (BLM) multiple use mandate, the BLM works to ensure responsible mineral development on public lands takes place in a balanced way while also managing the public lands for a wide range of other activities such as renewable energy development, recreation, conservation, and livestock grazing. There are currently over 390,000 active mining claims on public lands, with over 570 active mining plans of operations and another 867 active mining notices. The administration has approved 20 new mine plans of operation

since January 2021 and continues to review and advance mining applications, including recently publishing a draft environmental impact statement for the proposed Gibellini vanadium mine in Nevada.

Understanding the importance of responsible mining to our modern economy, the Department announced in February the formation of an Interagency Working Group (IWG) that will review and make recommendations to reform hardrock mining laws and permitting regulations. Some of the goals of the IWG include ensuring mining occurs under strong and consistent environmental standards; improving the efficiency and outcomes of permitting for well-planned mining projects; ensuring transparency in mining activities on public lands; and providing accountability to taxpayers for management of national resources.

Question 2. The Biden administration has issued several executive orders, including Executive Order 14005, "Ensuring the Future is Made in America by All of America's Workers, launching a whole-of-government initiative to strengthen the use of Federal procurement to support American manufacturing." The Executive Order further states that the "U.S. Government should, whenever possible, procure goods, products, materials, and services from sources that will help American businesses compete in strategic industries and help America's workers thrive."

I just came back from an annual meeting hosted by the National Mining Association—the very industry and companies that are trying to ensure that we reduce our extreme import reliance on key minerals and materials some from hostile countries by producing them here in America, using American jobs, and with our existing strong labor and environmental standards.

What Administrative steps are required to transition from a claims system to a leasing system, would this process be subject to NEPA and what timelines are associated with this transition? Given the many steps required to impose a leasing system, how soon can new hardrock mines be permitted in the U.S. under a potential new leasing system?

Answer. If the Mining Law of 1872 is updated to create a leasing program, the BLM would need to initiate rulemaking as soon as the new law is enacted. During the regulatory update, the BLM would need to provide sufficient time for public comment and review. Other details about a transition to a leasing system, such as how existing claims are handled, would depend on the specifics of the legislation.

Question 3. The Infrastructure Investment and Jobs Act contained a bipartisan provision in Section 40206 to address modest new metrics for permitting efficiency improvements for mining on Federal land.

(3a). The provision also requires DOI to report to Congress by November on how it will meet these goals. I know the IWG is taking public comment on implementing this section, but how is DOI implementing this directive, and will it meet the November 2022 deadline of its first report to Congress?

Answer. The BLM is one of many federal agencies working as part of the IWG, which the Department created to meet the directives and reporting requirements of Section 40206 of the IIJA (BIL). In pursuit of these requirements, the IWG is seeking public comment, meeting with stakeholders representing all interests (including the mining industry), Tribal governments, and State governments. The recommendations from the IWG are expected to be delivered this fall.

(3b). Section 40206 directs DOI and USDA to quantify the period of time typically required to complete each step associated with the development and processing of applications, operating plans, leases, licenses, permits, and other use authorizations for critical mineral-related activities on Federal land and compare to other countries in terms of permitting efficiencies. What is the current timeline for permitting, and how does the U.S. compare to other countries?

Answer. In 2016, the Government Accountability Office issued a report that found the average time for the U.S. Forest Service and the BLM to approve a Plan of Operations was approximately 2 years (GAO-16-165). The time frames associated with processing mining Plans of Operations are dependent on the size of the mine, the location, the complexity of the proposed project, and if there is any litigation involved. The BLM does not track timelines in other countries.

(3c). Global investment in U.S. mining production has dropped in half over the last 20 years. How can DOI help reverse that trend?

Answer. The Secretary supports responsible and sustainable development of domestic minerals. Under the BLM's multiple use mandate, the BLM works to ensure responsible mineral development takes place on public lands while also

managing the public lands for a wide range of other activities such as renewable energy development, recreation, conservation and livestock grazing. There are currently over 390,000 active mining claims on public lands, with over 570 active mining plans of operations and another 867 active mining notices.

The IWG will review and make recommendations to reform the hardrock mining laws and permitting regulations. Some of the goals of the IWG include ensuring mining occurs under strong and consistent environmental standards; improving the efficiency and outcomes of permitting for well-planned mining projects; ensuring transparency in mining activities on public lands; and providing accountability to taxpayers for management of national resources.

(3d). Section 40206 also requires track critical mineral production progress at specific sites on OMB's priorities website. With resources from DOE and now DOD going to new mineral production and processing, how can DOI work with OMB and tools like the newly permanently reauthorized Federal Improvement Steering Council to prioritize development of critical minerals on Federal lands?

Answer. The IWG includes representatives from the Department of Agriculture through the U.S. Forest Service; the Environmental Protection Agency; the Departments of Commerce, Defense, Energy, and State; the White House Council on Environmental Quality; the National Economic Council; and others. Currently, the IWG is seeking public comment, meeting with stakeholders representing all interests (including the mining industry), Tribal governments, and State governments.

Following the passage of President Biden's Bipartisan Infrastructure Law (BIL), the Biden-Harris Administration released a Permitting Action Plan to strengthen and accelerate Federal permitting and environmental reviews, fully leveraging the permitting provisions in the BIL. The plan can be accessed at the URL: https://www.whitehouse.gov/wp-content/uploads/2022/05/Biden-Harris-Permitting-Action-Plan.pdf. The goal of such permitting efforts is to provide predictability and improve efficiency for applicants; BLM will continue to apply existing laws and regulations to ensure that proposed mining projects would not result in the unnecessary or undue degradation of public lands.

In addition, the Secretary of Defense is directed to consult with the Secretary of the Interior in implementing the Presidential Determination invoking the Defense Production Act to increase domestic mining and processing of critical materials for the large-capacity battery supply chain.

Mr. GRIJALVA. Thank you very much, Dr. Feldgus.

And let me remind Members that Committee Rule 3(d) imposes a 5-minute limit on questions.

The Chair now recognizes Members for any questions they may wish to ask our first panel. Ms. Herrell, you are recognized, if you have questions.

Ms. HERRELL. Thank you, Mr. Chairman. And thank you so much for your statement.

I do have a couple of questions, and hopefully we can kind of get through these. I have two or three.

Do you know, did the U.S. Geological Survey find that the import reliance of the United States on other countries for minerals grew from 2021 in the report to 2022?

Dr. FELDGUS. I don't have the USGS report in front of me, but we can get that data and get that back to you.

Ms. HERRELL. OK. I was just curious if it was in there, and then if you would know how long it would require to change and implement regulations to change the claim system to another system like leasing. Was that addressed in the report, or do you maybe have knowledge of that?

Dr. FELDGUS. Do you mean in the U.S. Geological Survey report?

Ms. HERRELL. Right.

Dr. FELDGUS. On minerals? They did not look at access rights to minerals in the United States.

Ms. HERRELL. OK. And then something else I wanted to bring up, we are all aware of the problems as far as abandoned mine sites and the need to clean them up. We have them in New Mexico, and I know there are other locations.

One of the ways we might approach this issue is through third-party, non-governmental organizations assisting with remedy projects. Are you familiar with the so-called Good Samaritan legislation? It was a Senate bill.

Dr. FELDGUS. Yes.

Ms. HERRELL. Understanding that as it is written, do you think that this would be something that could work? Could it be implemented?

The DOI is talking with the EPA and other agencies about how to address abandoned mines through the Good Samaritan arrangement, and I am just wondering your thoughts on that. Is that a piece of legislation that actually could be developed to work for what we are talking about in regards to abandoned mines?

Dr. FELDGUS. Sure, thank you for the question. I am not familiar with the specifics of that legislation, and that is an issue that would be dealt with by the Environmental Protection Agency.

But I will say that Good Samaritan laws are endorsed in the Administration's fundamental principles for mining reform, and we think that is an excellent way to begin some of the reclamation of these abandoned hardrock mine sites.

Ms. HERRELL. OK, and you are right, the bill is written kind of outside the Department of the Interior's purview, if you will, but it is a bill that has been introduced by, I think, Senators Heinrich and Risch.

And the last question for me is, can you weigh in on whether liability protections for the third parties doing reclamation work could help speed up the process in terms of these abandoned mines?

Dr. FELDGUS. Sure. Again, not an expert on that particular piece of legislation, but I do understand that it is the liability concerns under certain other legislation that does hamper the ability of these third parties from coming in and being able to clean up those sites.

So, the Administration, as a whole, certainly looks forward to working with Congress to find a Good Samaritan solution that can work and can help leverage those private dollars to help address this abandoned hardrock mine problem.

Ms. HERRELL. OK. And this final question, in your statement that you just made, there was a sentence in there about ensuring that the individual person, or the community, was a beneficiary of the development right before you started talking about phones, batteries, that type of thing.

Do you mean beneficiary in the sense of can go out and purchase a product, or do you mean beneficiary as in would have some kind of a vested interest and have a payout? You know, monetary or just a beneficiary as in for products sold as a result of mining?

Dr. FELDGUS. Well, certainly, when we are talking about local communities and tribes benefiting, in one sense we are talking

about the potential for a royalty that would then take a certain portion of the mineral value and allow that to be used for other purposes.

But, certainly, mining can be a very important component to local economies. So, certainly, we are supportive of growing local economies through responsible and sustainable domestic mining.

Ms. HERRELL. OK, thank you.

And thank you, Mr. Chairman.

Mr. GRIJALVA. Thank you. Let me now recognize the gentleman from California.

Chairman Huffman, you are recognized for 5 minutes, sir.

[Pause.]

Mr. GRIJALVA. Mr. Huffman, you are recognized, if you can hear us.

[Pause.]

Mr. GRIJALVA. Let me now invite Ms. DeGette, if she has any questions for Dr. Feldgus, and then we will go back to Mr. Huffman after Mr. Carl.

Ms. DEGETTE. Thank you so much, Mr. Chairman. It is great to see you. And welcome to our witness.

I want to ask you a few questions about the way hardrock mining is treated compared to oil and gas. Mr. Feldgus, am I correct that oil and gas extraction on public lands operates under a leasing system, and that this system requires the companies to pay for the public's resources that they extract from those lands?

Dr. FELDGUS. That is correct.

Ms. DEGETTE. And is it also the case that, under the existing 150-year-old mining law, mining companies, including international mining companies, they don't have to ask permission to mine public lands in places like my home state of Colorado, because they are not under a leasing system?

Dr. FELDGUS. That is correct. They are free to access and state claims on any unwithdrawn piece of public land.

Ms. DEGETTE. Are there any requirements for mining companies to alert nearby communities of their plans?

Dr. FELDGUS. Not in the early stages, certainly not when it comes to staking a claim or doing certain smaller exploration work. Once they submit a plan of operations to develop a commercial-scale mine, then they would enter the NEPA process, and local communities would be notified.

Ms. DEGETTE. But say for a small town—I think about my small towns in Colorado. If there was a company that wanted to mine, the local citizens might not have any idea about it until it is far along into the process. Is that correct?

Dr. FELDGUS. Yes, that is correct.

Ms. DEGETTE. And now, is there anything inherently unique about the mining industry, compared to other extractive industries like oil and gas, that would make it impossible to transition to a leasing system that would require royalty payments?

Dr. FELDGUS. I would just point to other nations that, by and large, use leasing systems. We may be the only country in the world that uses a claim system all the way through production.

Ms. DEGETTE. So, actually, we are the only country that you know of that doesn't use the same system for both, is that right?

Dr. FELDGUS. That is correct.

Ms. DEGETTE. Now, would we have to create a new and unique governing system for the mining industry if we were to transition to a leasing system?

Dr. FELDGUS. Well, it all depends on how we structured that system, whether it was leasing, or some sort of hybrid with claims and leasing, or a third option.

Ms. DEGETTE. But we could use existing systems if we wanted to, is that right?

Dr. FELDGUS. Sure. We believe that we could modify the existing structure to accommodate that.

Ms. DEGETTE. OK. Now I want to ask you a couple other questions.

Am I correct that BLM has few options under current law to deny a proposed mine, even if that mine was on, say, lands sacred to Native American tribes?

Dr. FELDGUS. There are certain legal questions about the ability for the Bureau of Land Management to say no to a particular mine plan. Companies have to meet the regulations that are laid out by the BLM. But under the mining law, if there is a discovery of a valuable mineral, there is a right to mine. There can't be a complete shutdown of the mining operation.

Ms. DEGETTE. Do you know of a current regulation that says that BLM could regulate a mine on sacred lands?

Dr. FELDGUS. I am not aware of any regulation that refers to sacred lands.

Ms. DEGETTE. OK, or as defined by the Native American tribes.

Dr. FELDGUS. That is correct.

Ms. DEGETTE. OK. Now, is it true that the mining industry is also able to pollute our water resources due to loopholes in the Clean Water Act, the Resource Conservation Recovery Act, and other environmental laws?

Dr. FELDGUS. Unfortunately, I am not an expert in those laws.

Ms. DEGETTE. OK.

Dr. FELDGUS. But there are BLM regulations designed to cut down on water pollution.

Ms. DEGETTE. OK. Perhaps you could go talk to the legal experts and find out if there is anything in the Clean Water Act, the Resource Conservation Act, and other laws that would control pollution.

Dr. FELDGUS. Yes, we can get back to you on that.

Ms. DEGETTE. That would be super.

Now, is it true that the—OK, I am not going to ask that last question.

Instead, Mr. Chairman, I am done here, and I am going to yield back. Thank you so much.

Mr. GRIJALVA. Thank you very much.

Let me recognize Mr. Fulcher for 5 minutes, sir.

Mr. FULCHER. Mr. Chairman, I think Mr. Carl is going to be next.

Mr. GRIJALVA. I am working off the list I am given by staff. So, Mr. Carl?

Mr. CARL. Thank you, Mr. Chairman. I appreciate that.

Dr.—is it Feldgus? Did I pronounce that correctly?

Dr. FELDGUS. Feldgus.

Mr. CARL. I am from South Alabama. We sound a little different.

Dr. FELDGUS. That is all right.

Mr. CARL. Last night, literally when I was sleeping, your Department announced it was not holding the remaining two court-ordered leases in the Gulf of Mexico this year.

Gas prices are at an all-time high. You realize that, right?

Dr. FELDGUS. Yes.

Mr. CARL. Americans are hurting. When the cost of fuel goes up, everything goes up: a loaf of bread, a pair of shoes, a car, everything. If we continue to go down this path, we are going to wind up like the UK, where the citizens are spending more money when the windmills aren't turning, and this economy is being crushed by it. And I want you to understand it. I want you to understand how the people in Alabama feel. We need help. We need the Gulf opened up. And the bureaucratic games that we are playing are not playing out well in the state of Alabama.

Why are you all not holding these offshore lease sales when the court mandated them?

And please don't give me the bureaucratic answer, because we are all getting pretty sick of that.

Dr. FELDGUS. Well, thank you for the question, Congressman.

I will say the President cares very deeply about the price of gas and the impact of inflation on American families, and he is doing everything he can to try to address that. That is one of the reasons why he ordered the largest-ever release of oil from the Strategic Petroleum Reserve.

Mr. CARL. That does nothing.

Dr. FELDGUS. That oil can be produced more quickly than oil from new leases, particularly offshore, which can take many years to be developed.

Mr. CARL. Well, in the business world you plan many years ahead. And when you shut things off, you shut them off, and it takes many years to catch up.

And the people in Alabama and the people in this nation are frustrated, and they are mad. My phones are lit up. People don't like $5 a gallon. And I don't think this Administration truly understands how it affects the common person, the single moms that live from check to check. That double in fuel prices you see in so many places, those independent truck drivers, I mean, they are talking to me. They are getting paid $7 a mile and paying $5+ for a gallon of fuel. They are losing money, and it is killing this economy.

And then you turn around and shut these wells down, or excuse me, you stop the leases in the middle of the night that are court-ordered. It doesn't make sense.

We are supposed to be working together. I mean, when the environment takes preference over human life, and that is where we are at—I saw an illustration the other day. One of the Senators, he was showing turtle eggs had more protection than a baby. And it is the truth. And we don't need to get into that discussion here, that is not what this is about.

But what is happening—I promise you in November it is going to happen. November, you are going to see what people are going to speak.

And I am going to say it from this podium right now. We have to start drilling. We have to get our people back to work. We have to get fuel prices down. And releasing a few barrels of oil from our Reserve is not going to get it done.

Mr. Chairman, I give my time back. Thank you, sir, and I appreciate your patience.

Mr. GRIJALVA. The gentleman yields back. Let me recognize our colleague, Representative Dingell, but let me first thank her for the visit to the Dingell refuge that we recently named. And I appreciated that visit very much. And it was quite a nice, welcoming set-up that was there. So, with that, let me recognize the gentlelady for 5 minutes.

Mrs. DINGELL. Thank you, Mr. Chairman, and it was an honor to have you there to see the wonderful natural resources we have in Michigan. I don't want to get sentimental today.

Thanks to all my colleagues for holding this hearing on reforms to the Mining Law of 1872 and domestic production of critical minerals. The Chairman was just in my state, and for the auto industry it is a very, very important question.

It is good to see Dr. Feldgus join us again. Steve was a valued member of our Natural Resources Committee staff for many years, and we appreciate you lending your time and expertise today on this important issue.

If the next century is to be another American century where we are leading, it is essential that we secure reliable and a sustainable supply of critical minerals and materials for EVs, as well as other advanced industries. These are fundamental to U.S. competitiveness, in creating good-paying jobs, particularly in my home state of Michigan, home to the domestic automotive industry, where electric vehicles are the future. But the Biden administration's 100-day supply chain review found that China controls an estimated 55 percent of global rare earths mining capacity and 85 percent of rare earths refining. The United States has fallen far behind.

Dr. Feldgus, do vulnerabilities in the supply chain for critical minerals and materials pose a threat to our economic welfare and national security?

Dr. FELDGUS. Thank you, Congresswoman, and I will say yes, the Administration is very concerned about supply chain vulnerabilities and how those would impact economic welfare and national security, which is one of the reasons why the President issued Executive Order 14017 on America's supply chains shortly after taking office. And those national security concerns were also reflected in the Presidential Determination under the Defense Production Act that the President signed in March. The need for minerals for our transition to a clean energy economy is also one of the reasons why we formed the Interagency Working Group on Mining Regulations, Laws, and Permitting.

So, while the Administration is very focused on the economic welfare and national security impacts of our supply chains, we also want to make sure that any new production is able to meet the highest environmental and tribal consultation standards. And the Defense Production Act determination makes it clear that it does not affect environmental health or safety laws.

Mrs. DINGELL. Thank you. And I want to talk here—my colleague, Jared Huffman, shares this concern with me. And I know, while you all have—and I have shared this with the Secretary of Energy—you have your interagency task force, like we did on electric vehicles, we want to bring a table together of the environmentalists and the unions to also talk about these issues, so we can help everybody move forward on it because it is a real competitive issue.

We know that electric vehicles are the future, which is why China, the European Union, and other nations have made investments in EVs and EV infrastructure such a priority. They understand that orienting the industry toward lower and zero carbon emissions is not only good for the environment, but it will create jobs while supporting local economies and workers.

Dr. Feldgus, can we out-compete our geopolitical rivals like China without addressing these supply chain vulnerabilities for critical minerals and materials?

Dr. FELDGUS. Well, I am not an expert in geopolitics, so I can't give you a very complete answer to this question. But I will say the importance of staying competitive with other nations is one of the major themes that runs through all the reports that were developed pursuant to the Executive Order on America's supply chains.

Mrs. DINGELL. Thank you. I am going to close by saying we can't let supply chain vulnerabilities become a full-blown crisis, which is why I appreciate the Administration's efforts and the Chairman's proposal to this end. It is why this hearing is so important.

Additionally, I am a strong supporter of the supply chain resilience subtitle included in the America COMPETES Act, which establishes a new Office of Manufacturing, Security, and Resilience responsible for implementing a $46 billion program to map and monitor our supply chains, providing financial assistance to strengthen supply chains and domestic manufacturing. As the conference process on USICA and America COMPETES commences, we have to seize the opportunity to enshrine this crucial program into law. That is why I thank the Chairman, and I look forward to working with my colleague, Mr. Huffman, on this subject, because we have to deal with it if America is going to be competitive.

Thank you, Mr. Chairman, and I yield back.

Mr. GRIJALVA. Thank you very much. And at the request of the Ranking Member, Ms. Herrell, you needed an additional bit of time to make a statement, or ask a question?

Ms. HERRELL. Just ask a question, yes.

Mr. GRIJALVA. OK.

Ms. HERRELL. Thank you, Mr. Chair.

Mr. GRIJALVA. No problem.

Ms. HERRELL. I will be brief. Back in February of this year, my colleagues and I sent a letter to Secretary Haaland regarding military unrest around the world and around Russia that affect mineral supply chains.

Unfortunately—and I want to streamline this—the worst has come to pass, of course, with Ukraine and Russia. They are now in the midst of war. The DOI declined to take the warnings about

supply chains into account, leaving helium and uranium off the critical minerals list.

So, given the requirement in the Consolidated Appropriations Act of 2021 to forecast future supply and demand trends, can you explain why active military conflicts involving Russia, one of the largest global helium suppliers, was not considered when finalizing the critical mineral list?

Dr. FELDGUS. Well, it is hard for me to speak exactly to the entire U.S. Geological Survey process for each mineral and how they analyze that for whether or not it would get included.

I do understand that, with helium, because the United States is the No. 1 world supplier for that element, that it was not necessary to put it on the list. But I would have to go get the U.S. Geological Survey to provide a more complete answer for you.

Ms. HERRELL. OK, thank you.

Mr. Chair, I yield back.

Mr. GRIJALVA. Before I ask any questions, Madam Ranking Member, is there anyone that needs to be recognized at this point?

Ms. HERRELL. No, sir.

Mr. GRIJALVA. Because I would be the last asking questions to Mr. Feldgus. OK, let me now at this point recognize myself for a couple of questions.

Mr. Feldgus, we heard a very salient point, which was the common person's needs out there, whether it is the rising cost of gas, inflation rates, supply chain. And the fact remains that, for that person, the issue is the cost. The issue is not necessarily the reason, but the cost.

So, let's say that we are dealing with immediate relief for that. If tomorrow morning, not only is this law OK, but it needs to be even more open to the mining industry in terms of extraction on our public lands, if that were to occur, when do you see that kind of production of critical minerals that we are talking about, or any other extraction, when would that production actually have—in terms of time—an effect on that price, on that cost? How long would it take?

Dr. FELDGUS. Thank you. It would take quite a long time. I am not an economist, but it takes a long time to find a mineral prospect, explore it, and then develop it into a commercial mine.

Mr. GRIJALVA. If you define "domestic industry"—my definition is that it is domestic because it is being extracted from public lands and made in the United States—then the definition of "domestic" changes in terms of most of the major mining industries that are operating on our public lands are multi-nationals, and many of them based outside the United States, in terms of being a foreign company. Is that a correct assessment?

Dr. FELDGUS. Yes, that is correct. I don't have the exact numbers, but many of the mining companies that operate on public lands are owned by Canadian or Australian or Chilean companies.

Mr. GRIJALVA. And most of the major conflicts that we are seeing across this country, in terms of siting and operation and planning process, whether it is the Grand Canyon, Resolution, Boundary, name it, almost all of them have as the source of that conflict, between whether it is Indigenous communities, surrounding communities, environmentalists, land use planners, et cetera, water

issues in Arizona, all those are then, if I am not mistaken—the proponent for this mine is primarily a multi-national corporation if you look at ownership.

I mention that because that is an effect, as well, and that if we are going to create this domestic product for our own security, there are no guarantees that that domestic product is not exported, as the majority of extractions on hardrock mining are to this present day.

Dr. FELDGUS. That is correct. And that is why the refining and processing components of these supply chains are so important. And that is also a feature of the Administration's approach.

Mr. GRIJALVA. Yes, I was getting to cleanup. How many abandoned mines are on public lands? That has always been a figure. And estimated cost for cleanup?

Dr. FELDGUS. There are no exact numbers that I can give you on that, unfortunately. There are a lot. Estimates range over 500,000 abandoned mine sites throughout the country. And we just don't have a good inventory of those sites. There hasn't been enough funding to go out there and actually count and identify where all of these are.

And in terms of costs, we have seen estimates as high as $50 billion or more.

Mr. GRIJALVA. Yes, so dealing with this legacy of the mining industry, it is an important issue to all communities.

If there was any other reason for a royalty, a lease versus a permit, this cleanup is going to require an investment beyond, to some point, the capacity of even us in Congress being able to designate that. It is going to require some responsibility and accountability on the part of the people doing business on our land.

So, isn't this reason enough for a royalty charge?

Dr. FELDGUS. I think it is an excellent use for a royalty, just as the coal industry has been paying for the last nearly 45 years a fee on each ton of coal produced in order to address the legacy abandoned coal mines throughout the nation, and what has been a very successful attempt to address those, we think it would be fair for the hardrock mining industry to also contribute a portion to the cleanup of the legacy hardrock abandoned mine sites.

Mr. GRIJALVA. OK, I think my time is ostensibly up.

Thank you, Mr. Feldgus, and let me now recognize Mr. Graves for your 5 minutes, sir.

Mr. GRAVES. Thank you, Mr. Chairman.

Mr. Feldgus, I appreciate you being back here as a sacrificial lamb. Great to have you back in the Committee again.

Mr. Feldgus, it has been amazing to me, watching this Administration blaming Vladimir Putin for the energy price crisis that is impacting every American family, people having to make decisions between refueling their car or paying their grocery bills.

It has been amazing to me, watching this Administration again blame Vladimir Putin whenever the reality is before, well before, the war in Ukraine we saw one of the largest price spikes in gasoline costs that we have ever seen in our lifetime, only to continue. We then saw the Administration trying to deflect blame and say it is because of price gouging of the oil and gas companies, it is their fault, it is price gouging.

But what the facts reveal is something very, very different. As you well know, it takes years to go from a lease sale when lands are made available for energy production onshore to go to production. It takes a decade for the offshore. And what is this Administration doing? Absolutely nothing.

This Administration's energy strategy is no to everything. And yes, it is no to oil and gas. But you know what else? It is no to solar, it is no to wind. It is no to geothermal. It is no to everything. Because there is no plan, there is no strategy in place. There is nothing. You have shut down. Speaking for my friend, Mr. Stauber, you have shut down the Twin Metals Mine. You can't have renewable energy production without the resources. You can't have it.

This Administration is solely responsible for the prices and the energy crisis that we are experiencing today, solely responsible. This Administration, what do you do to lower prices? You raise royalty rates 50 percent? I mean, who looks at this and says, "Oh, yes, I have a great idea."

I have never seen more inexperience and just doubling down on stupid strategies on energy in my entire life. Only last night, to have the announcement that the area where 18 percent of the oil for the United States is generated, 18 percent, the Gulf of Mexico, and to shut down the Cook Inlet lease sale offshore Alaska, as well. To say that we are not going to do a lease sale.

Let me say it again. The only President in modern history to say that we are not going to have a lease sale, we are not going to offer any new energy.

Let's be crystal clear why there is an energy crisis. It is because of this Administration. The Secretary of Energy just last week or the week before said they haven't found price gouging. She said it, this Administration's own officials.

Look, you are a nice guy. I enjoyed working with you, and I know this isn't your fault. I know that you are sent here as a sacrificial lamb. Crystal clear to all of us. But I will tell you what. You have one in every five Americans right now that can't afford to even cover their electricity bill. Like I said, they are having to make false choices between whether they are going to buy groceries for their family or they are going to fill their car so they can drive to work.

This is absolutely disgusting. It is absolutely unforced errors, self-imposed impacts on the U.S. economy. And it is not limited to just energy, because the energy is one of the most pervasive things. It is the primary driver of what we are seeing right now with inflation, with the supply chain problems, and probably contributing to worker shortage as well, because people can't afford to get to work.

This Administration can no longer have no to everything as an energy policy. I remind you, as I did last time, you can sit here and say we are doing all this for climate change. You know what? During the Trump administration emissions went down an average of 2.5 percent a year. During the Biden administration they have gone up 6.3 percent.

You can talk about production levels, and I am well aware. And as I stated at the beginning—sorry for taking your talking points—yes, production has gone up. But because of the lead time, everything that is happening in regard to domestic energy production is

because of what the Trump administration did. Under your administration, or under the Biden administration, we have seen a significant drop in the approval of production. We have seen a significant drop in the approval of APDs.

And as a matter of fact, just to put another finer point on it, if you look at bonus bids, which, as you know, is the auction bid that is provided at the beginning of a lease sale, the immediate payment that is made in the auction, do you know that those have gone down more than—right now, under this administration, they are less than one-tenth the revenue that was generated under the previous administration? Less than one-tenth, despite the fact that energy prices are at record levels. That gives you some indication of how flawed these energy policies are. And for my home state, that is hurricane protection funding, coastal restoration funding, preventing additional disasters in FEMA funds.

"No" is not an energy policy. This Administration is solely responsible for the disasters we are experiencing now, and I urge you to take that message back. Don't sink with this ship.

I yield back.

Mr. GRIJALVA. The gentleman yields back, and I don't believe there are any other further questions or dramatic entrances and exits, but Mr. Feldgus, the one question for information, and perhaps the Ranking Member needs it as well, and I will encourage Members to send you specific questions and we hope for a written response. The one question that I would like to ask for the record, there has been discussion about all the permits that are out there that are not being used. Fine. Whatever that number is, 9,000. I would like to see where principal ownership of those permits exists, in terms of the companies that are holding onto them. And then we—as a comparison, contrast with the crocodile tears that we are hearing from industry and from Members in terms of this issue. So, if you would, do that.

I appreciated in your testimony that fact and science is going to drive this discussion. I appreciate the working group. There are balances to be reached here. But one of the premises has to be that this industry has to play by the rules, whether I object—those rules, I think, need to be strengthened down the road. But at this point the rules have to be.

And I find it ironic that states can charge on state land for hardrock extraction, but the Federal Government next door, same piece of land essentially, can't.

With that, let me thank you and wish you the best. And you are not a sacrificial lamb, you are a lion. Bye, thank you.

Dr. FELDGUS. Thank you very much, Mr. Chairman.

Mr. GRIJALVA. Our next panel is up, and we will give them a little time to get situated, and then we will begin with that part of it.

Let me welcome the next panel and the witnesses. As I introduce the second panel, let me begin by welcoming you all here, thanking you very much for your time, and let me now recognize and introduce President Jeffrey Stiffarm from the Fort Belknap Indian Community.

It is good to see you again, sir, and welcome. The floor is yours.

STATEMENT OF JEFFREY STIFFARM, PRESIDENT, FORT BELKNAP INDIAN COMMUNITY, HARLEM, MONTANA

Mr. STIFFARM. Good morning, everyone. I appreciate this time to be here to speak about a very important matter. And I would like to thank the Chair and the Committee members for inviting me here to speak on behalf of my people.

I come from the Fort Belknap Indian Reservation, the home of the A'aninin and Nakoda people. I am currently the Tribal President there, and I am here to speak on behalf of our people. I am here to testify on the urgent need for mining reform and hardrock mining.

Fort Belknap has been affected by a lack of laws pertaining to hardrock mining. As some of you might know, the Little Rocky Mountains on the southern end of our reservation—our people call them the fur caps—had an open pit cyanide heap leach pad mining for 20+ years. It was called the Zortman Landusky Mine, and it was experimental, the first cyanide heap leach mine in the world. And it was owned by Pegasus Mining.

And while that was going on there were a lot of findings of acid drainage leaking into the reservation, but that didn't matter. They were allowed to get more permits and expand their mining up to 1,200 acres, even though cyanide was leaking into the Fort Belknap's water and groundwater. There were no rules in place to hold the Zortman Landusky Mines accountable, or Pegasus.

As the contamination went on and Fort Belknap started filing lawsuits, the state started taking notice. Pegasus Mine declared bankruptcy and left, and they left the cleanup to the state and the Federal Government, which cost around $3–$4 million a year, currently, to help filter clean water down onto our side of the reservation and into the Towns of Zortman and Landusky.

And it is perpetual. So, the taxpayers are responsible for these miners' mistakes that they have done, because there were no rules in place to hold them accountable for what they did. And our people will suffer forever for this.

Where Zortman and Landusky is currently mining, it was called the Grinnell Notch. That was part of our reservation that was forcibly taken from us by the Federal Government. They starved our people out to sign the agreement to turn that land over to them.

I have some pictures here, if you can zoom in your camera. On this picture I am showing you here, in the background, right here where my fingers are, that is our Sundance grounds. That is like our cathedral, where we sacrifice ourselves in prayer and song and dance to suffer for our people. And as you can see below here, this orange, those are acid tailings running right through our Sundance grounds.

My question to you is, would you like that running right next to your church, right next to your cathedral? I don't think so.

One other thing I would like to add is our people are second-class citizens to the Federal Government and have always been treated that way. We are not opposed to mining. We are opposed to what they have done to our people, what they have done to other communities, and what they are continuing to do because of no accountability, no rules. We are just dissatisfied.

And we would like to thank you guys again for allowing us to say a few words on behalf of the Fort Belknap Indian Community and the A'aninin and Nakoda people.

[Speaking Native language.] I am open for questions now.

[The prepared statement of Mr. Stiffarm follows:]

PREPARED STATEMENT OF JEFFREY STIFFARM, FORT BELKNAP INDIAN COMMUNITY PRESIDENT

I. INTRODUCTION

Mr. Chairman and members of the subcommittee, thank you for the opportunity to testify on the urgent need for mining reform. My name is Jeffrey Stiffarm, and I am the President of the Fort Belknap Indian Community in Central Montana. I'd like to talk a little about how hard rock mining has devastated the Fort Belknap Reservation to illustrate the vital need for better mining laws to prevent what happened to my people.

II. HISTORY OF MINING IN THE LITTLE ROCKY MOUNTAINS

The Fort Belknap Indian Reservation is home to the Gros Ventre and Assiniboine Tribes. Our Reservation was established and set aside for the Tribes' use by an Act of Congress in 1888.[1] At that time, the Tribes received assurances from the U.S. Government that we would retain our rights to all water necessary to fulfill the purposes of the Reservation, including waters originating in the Little Rocky Mountains that Tribal members used for irrigation, domestic supplies, and other purposes.[2]

The original Fort Belknap Reservation included the Little Rocky Mountains, which to this day are the headwaters for much of our water resources. The Little Rocky Mountains are considered sacred by Tribal members, and were traditionally used by the Tribes for hunting, fishing, cultural, and spiritual purposes. This land, and especially the Little Rockies, are the foundation of our cultural practices, including fasting, prayer, and spiritual communion as well as home to many of our sacred sites and cultural practices.

But when gold was discovered in the Little Rockies in the 1880s, the federal government pressured our Tribes to cede the gold-bearing areas of the Reservation to the United States. Congress carved out the Little Rocky Mountains from the Reservation's boundaries in 1896.[3]

Then in the late 1970s, new mining technologies and a sharp rise in the price of gold resulted in the development of open pit mining operations at the Zortman and Landusky mines in the Little Rockies.[4] These modern mines were operated under BLM-approved Plans of Operations from 1981–2003.[5] The mines used cyanide solution to extract microscopic particles of gold from the ore. During that time, state and Federal agencies approved numerous expansions of the mines. At its largest, the mining complex covered over 1,200 acres.

III. THE CONTAMINATION

The Zortman and Landusky mine sites are surrounded on three sides by the Fort Belknap Reservation and sit at the headwaters for many creeks, that eventually flow through the Reservation.

Heap leaching at the Zortman-Landusky mines exposed significant portions of rock containing sulfides to water and air, which resulted in acid mine drainage. Among other impacts, mining operations at Zortman-Landusky diverted stream flows away from the Reservation and contaminated multiple streams running onto the Reservation.

In fact, the Fort Belknap Indian Community is facing permanent surface and groundwater contamination and continues to suffer from multiple devastating and lasting harms to the Tribes' beneficial uses, including impairment of drinking water,

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[1] 25 Stat. 113 (May 1, 1888).

[2] *See Gros Ventre Tribe v. United States*, 469 F.3d 801, 804-05 (9th Cir. 2006); *see also Winters v. United States*, 207 U.S. 564, 567, 576 (1908) (recognizing Tribes' right to all waters flowing to and entering Reservation lands, "undiminished in quantity and undeteriorated in quality").

[3] 29 Stat. 350 (1896).

[4] *See Gros Ventre Tribe*, 469 F.3d at 805.

[5] U.S. Bureau of Land Management, Action Memorandum for Water Management at the Zortman And Landusky Mines, Non Time-Critical Removal Actions, Malta Field Office, Bureau of Land Management, Phillips County, Montana. September 2006.

fish and wildlife habitat, recreation, agricultural, and industrial uses.[6] Acid mine drainage has likewise resulted in public health risks and continues to threaten the Tribes' powwow grounds, ceremonial and sacred sites, including other areas of cultural significance.

IV. CONTINUED CONTAMINATION AND THREATS FROM NEW MINING

The mining stopped, but acid mine drainage and other contaminants such as cyanide, selenium and nitrates from the mines continues to pollute the water surrounding the mines. As stated by the U.S. District Court for Montana, "[i]t is undisputed that the Zortman-Landusky mines have devastated portions of the Little Rockies, and will have effects on the surrounding area, including the Fort Belknap Reservation, for generations. That devastation, and the resulting impact on tribal culture, cannot be overstated." [7]

After the mine operator declared bankruptcy at Zortman-Landusky, the mine was designated a CERCLA site in the early 2000s.[8] State and federal agencies contributed tens of millions of dollars to reclamation and water treatment at the site.[9]

In the midst of this toxic legacy, mining interests continue to target the area. Just last year, we were forced to challenge the issuance of a mining exploration license upstream from the Reservation by a mining company who was recently cited for exploring without a permit.[10] And while the BLM has temporarily withdrawn certain federal public lands in the Little Rockies from new mining, a recent 2-day lapse in that protection resulted in several new mining claims being staked within the Zortman Landusky Reclamation Area [11]—jeopardizing the enormous investment in existing and ongoing reclamation work.

This is a public safety threat of the highest magnitude. We must and will remain vigilant to protect our land and our people from the harmful impacts of hard rock mining. I should add we spend significant time and resources working to protect our communities and our natural and cultural resources despite insufficient public safety funding from the Bureau of Indian Affairs.

Future mining at the site not only threatens the health and welfare of tribal members, it threatens to further desecrate sacred tribal land, including the potential to disturb the graves of relatives and ancestors of tribal members.

V. CLOSING THOUGHTS

You have heard our story and I ask you to consider how you would feel if this was going on in your communities. How hard would you work to make essential updates to hard rock mining laws and regulations if your water were flowing orange from acid mine drainage?

Reform of U.S. mining laws must include meaningful consultation with Tribes and also the ability to say "no" to mines that would harm other important land uses.

The Fort Belknap Tribes appreciate the opportunity to testify today on urgency of reforming mining laws and regulations.

VI. PRESIDENT STIFFARM'S PRESS QUOTE IN FULL

The Fort Belknap Indian Community Supports House Natural Resources Chairman Grijalva's Clean Energy Minerals Reform Act. Reforming the Mining Law of 1872 is long overdue. The Fort Belknap Indian Community has been directly

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[6] Montana Department of Environmental Quality, Landusky Metals Total Maximum Daily Loads and Framework Water Quality Improvement Plan, March 2012, Available at: https://deq.mt.gov/files/water/wqpb/CWAIC/TMDL/M31-TMDL-01a.pdf.

[7] *Gros Ventre Tribe, et al. v. United States, et al.*, No. CV 00-69-M-DWM, slip op. at 12 (D. Mont. June 28, 2004).

[8] U.S. Bureau of Land Management, Action Memorandum for Zortman and Landusky Mines Time-Critical Removal, Operable Unit 1 & Operable Unit 2, Malta Field Office, June 2004.

[9] U.S. Department of Interior, Bureau of Land Management, Proposed Zortman-landusky Withdrawal, April 2022.

[10] *See* Montana DEQ, Violation Letter #VLHRM20220330-00071 to Luke Ployhar/Blue Arc LLC, April 1, 2022 (The Montana Department of Environmental Quality recently issued notices of violations against Luke Ployhar/Blue Arc LLC for allegedly conducting exploration and mining activities at seven locations in Township 25N, Range 25E, Section 7 without a permit. The disturbance associated with these unpermitted and unbonded mining activities contributes further to the degradation of the reclamation efforts in the Zortman Landusky Reclamation Area.)

[11] Specifically, reclamation efforts within the Zortman-Landusky Reclamation Area were jeopardized by the Department of Interior's failure to maintain the mineral withdrawal protections between the expiration of PLO 7464 on October 4, 2020 and the segregation of lands under this proposed mineral withdrawal on October 7, 2020. This 48-hour lapse in protection allowed 10 mining claims to be staked on October 5, 2020 by Luke Ployhar/Blue Arc LLC on BLM lands within the mineral withdrawal boundaries.

affected by mining atrocities and to this day, suffers the effects and is having to react and remediate the damage allowed by outdated and loosely translated mining laws. The Fort Belknap Indian Community is facing permanent surface and groundwater contamination from decades of hard rock mining in the Little Rocky Mountains on and adjacent to the Fort Belknap Reservation and continues to suffer from multiple devastating and lasting harms to the Tribes' beneficial uses, including impairment of drinking water, fish and wildlife habitat, recreation, agricultural, and industrial uses. Acid mine drainage has likewise resulted in public health risks and continues to threaten the Tribes' powwow grounds, ceremonial and sacred sites, including other areas of cultural significance. Negative environmental impacts are exacerbated by these outdated laws. All people, all governments, all environmental forums will benefit by updated and standardized laws. The Fort Belknap Indian Community is very supportive of the new legislation that helps to protect our sacred sites and requires meaningful tribal consultation prior to permitting activities that impacts our lands.

Mr. GRIJALVA. Thank you very much, Mr. President. Let me now invite Mr. James Chen, Vice President of Public Policy at Rivian Automotive.

Sir, the time is yours.

STATEMENT OF JAMES C. CHEN, VICE PRESIDENT OF PUBLIC POLICY, RIVIAN AUTOMOTIVE, LLC, WASHINGTON, DC

Mr. CHEN. Thank you very much and good morning, Chairman Grijalva, Ranking Member Herrell, and distinguished members of the Committee. Thank you for the honor of appearing before you today for this important hearing to discuss ways to modernize our domestic mining laws in the United States.

As noted, my name is James Chen, and I am the Vice President of Public Policy and Chief Regulatory Counsel for Rivian Automotive LLC.

We have already provided more extensive written comments to the Committee for the record. My testimony today will be a brief summary of the main points of those written comments.

Founded in 2009, Rivian is an independent U.S. company focused on the mission to keep the world adventurous forever through the design, development, manufacture, and distribution of class-leading, all-electric trucks and sport utility vehicles. Rivian currently produces three vehicles in the United States—the R1T pickup, the R1S SUV, and the Amazon delivery van named the EDV—all at our manufacturing facility in Normal, Illinois.

Acquired in 2017 from Mitsubishi after they closed this facility in 2016, Rivian has invested nearly $2 billion to revitalize and transform the factory into a modern, high-tech manufacturing facility that employs nearly 5,000 employees in direct manufacturing jobs. Our growth at this plant continues, and we have plans to hire even more workers and add a second shift later this year.

The R1T, our flagship vehicle, is the first all-electric pickup truck available in the U.S. market and has won numerous awards and accolades, including being named Motor Trend's 2022 Truck of the Year. With a 0 to 60 time as little as 3 seconds, towing capability of 11,000 pounds, payload capacity of over 1,700 pounds, and a quad motor design for the ultimate in torque vectoring, stability, and traction control, the R1T is a shining example of American ingenuity and American production. In fact, the R1T was recently

named the Coolest Thing Made in Illinois by the Illinois Manufacturers Association.

Rivian was formed to help drive the transition to sustainable transportation, developed and manufactured in the United States in order to protect our planet for future generations. Our mission to keep the world adventurous forever extends beyond the impact of the products we build. As such, our commitments go as well toward decarbonizing our business and responsibly sourcing the components and elements that go into our vehicles: complementary and necessary work that is required to address the climate crisis.

The battery is one of the most important components in the electric vehicle, and it accounts for a vast majority of the electric vehicle supply chain. A battery's raw materials, their processed derivatives, and the assembled cells themselves still largely exists outside U.S. borders. But with targeted policies, we enable an accelerated transition to a carbon neutral, circular domestic economy that is far more sustainable and secure in the long run.

Rivian is doing its part to create a strong, reliable, and transparent American battery supply chain, investing billions in manufacturing operations in Illinois, as mentioned, and soon, as well, in Georgia, working closely with domestic suppliers and others from allied nations and investing into early, in-house development of new battery technology.

By modernizing its mining laws and securing the battery and EV supply chain, the United States has an opportunity to lead the world, ensure the global mineral race does not become a race to the bottom. The Clean Energy Minerals Reform Act can help expand and accelerate domestic mineral development, while also conforming to our bedrock environmental laws and protecting special places like our national parks and monuments.

The bill also recognizes the impacts to rural communities and Tribal Nations. A majority of the U.S. nickel, lithium, copper, and cobalt reserves are located on or near tribal land. So, tribal consultation is essential to any update to our domestic mining laws.

The United States has the allies, the resources, and industrial capability to create a strong and safe domestic mineral supply chain. Lithium ion technology was developed and modern electric vehicles were commercially proven in the United States. America has consistently been a global leader in transportation technology. Let's not cede that leadership to foreign powers. Given the potential long-term security risks of having a weak domestic mineral supply chain, the Federal Government must put into place laws and policies that support responsible mineral development and extraction, as well as encouraging domestic supply.

Thank you again for the opportunity to testify today. I look forward to your questions.

[The prepared statement of Mr. Chen follows:]

PREPARED STATEMENT OF JAMES C. CHEN, VICE PRESIDENT OF PUBLIC POLICY, RIVIAN AUTOMOTIVE, LLC

Chairman Lowenthal, Chairman Grijalva, Ranking Member Stauber, and distinguished Members of the Subcommittee, thank you for the honor of appearing before you today for this important hearing to discuss ways modernize our domestic mining laws in the United States.

My name is James Chen and I am the Vice President of Public Policy and Chief Regulatory Counsel for Rivian Automotive, LLC.

Rivian Background

Founded in 2009, Rivian is an independent U.S. company focused on the mission to "Keep the World Adventurous Forever" through the design, development, manufacture and distribution of class leading all electric trucks and sport utility vehicles ("SUVs"). In 2017, the company acquired the former Mitsubishi production plant in the town of Normal, Illinois. Originally slated to be torn down and repurposed for mixed use residential and commercial, Rivian has invested nearly $2 billion to revitalize the plant into a modern, high-tech manufacturing facility. Employing nearly 5,000 employees in direct manufacturing jobs, Rivian is now producing three all electric vehicle models in Normal: the R1T, pickup truck, the R1S full-size SUV, and a commercial delivery van for Amazon. The R1T, our flagship vehicle, is the first all-electric pickup available in the U.S. market and has won numerous awards and accolades, including being named MotorTrend's 2022 Truck of the Year.

Following the successful debut of our three vehicles in 2021 and an Initial Public Offering ("IPO") that same quarter that raised approximately $12 billion, Rivian is now focused on ramping up production at our plant in Normal, Illinois, as well as beginning construction on a second domestic manufacturing site in Georgia. Rivian is also making significant investments into our next-generation vehicle platforms and in-vehicle technologies which include a range of new battery packs with new chemistries that are made with more common elements, greater efficiency, and are best suited for different types of vehicles and driving patterns.[1]

Rivian was formed to help drive the transition to sustainable transportation and protect our planet for future generations. Our mission to "Keep The World Adventurous Forever" extends beyond the impact of the products we build. Our goal is to lead the sustainable transformation of the automotive and energy sectors, and preserve natural ecosystems that provide the backbone for life on this planet. As such, we have committed to both decarbonizing our business and helping to protect critical natural carbon sinks—complementary and necessary work that is required to address the climate crisis.[2]

The battery is one of the most important components of an EV, and accounts for a vast majority of the EV supply chain. A battery's raw materials, their processed derivatives, and the assembled cells themselves—still largely exists outside U.S. borders. With targeted policies, we believe this supply chain imbalance can be corrected and enable an accelerated transition to a carbon-neutral, circular economy that is far more sustainable in the long run than the fossil fuel, one-time-use combustion-based economy we still largely have today.

Rivian is doing its part to help create a strong, reliable, and transparent American battery supply chain, investing billions in manufacturing operations in Illinois and Georgia, working closely with domestic suppliers and others from allied nations, and investing early into in-house development of new battery technology. By modernizing its mining laws and securing its battery and EV supply chain, the United States has an opportunity to lead the world, ensuring the global mineral race does not become a race to the bottom.

For these reasons, we are encouraged by the discussion that this bill has sparked today. The Clean Energy Minerals Reform Act can help expand and accelerate domestic mineral development while also conforming to our bedrock environmental laws and protecting special places like our National Parks and Monuments.

This bill also recognizes the impacts to rural communities and tribal nations. A majority of U.S. nickel, lithium, copper and cobalt reserves are located on or near tribal land,[3] so tribal consultation in the form of free prior and informed consent must be central to any update to our domestic mining laws.

EV Industry Outlook

The outlook for EVs is strong and positive. Demand for electric vehicles, particularly trucks, SUVs and delivery vans is increasing. For example, Rivian has preorders for approximately 80,000 R1T and R1S vehicles. Our contract with Amazon includes an order for 100,000 EDVs by 2030, the largest ever commercial fleet contract. Moreover, other fleet operators have expressed strong interest in all electric

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[1] Rivian Q4 2021 Shareholder letter. Rivian, Mar. 10, 2022.

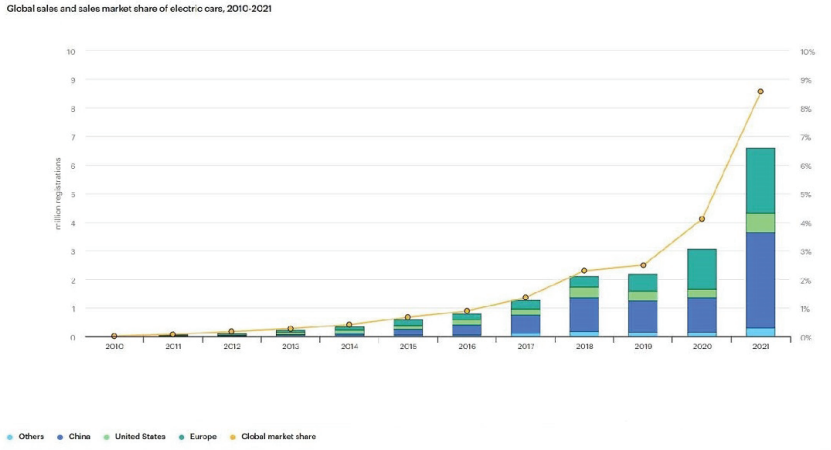
[2] Rivian Comment to U.S. Department of Interior request for information on the American Conservation and Stewardship Atlas and America the Beautiful Initiative, US Federal Register, March 7, 2022.

[3] Mining Energy-Transition Metals: National Aims, Local Conflicts, MSCI ESG consulting, June 3, 2021.

delivery vans as well. Demand is not an issue as we ramp up our production as quickly as possible.

The convergence of key trends, including shifting consumer preferences and targeted regulatory support, is contributing to the robust demand for Rivian products and services. EV adoption is accelerating as consumers and businesses better understand the benefits of EVs. Businesses, from auto companies to the mining industry, are responding to this demand to develop sustainable solutions. As a brand built on sustainability, we aspire to develop strong working relationships with all our upstream suppliers, including mining companies.

Though EV adoption rates in the United States have nearly doubled over the past couple years,[4] EVs still only comprised 3.4 percent of new auto sales in the U.S. 2021.[5] Other countries, particularly in Europe and Asia, are seeing higher rates of EV adoption,[6] and European and Asian auto manufacturers are quickly taking market share. The United States has always been a global automotive leader. Failure to employ a whole-of-government approach to securing a full domestic EV supply chain—from manufacturing to processing to extraction—risks ceding leadership to other nations. But as we did with oil in the 20th century, we can lead on minerals in the 21st century.



Updating the 1872 Mining Law

As a Company that relies on the mining of critical minerals for our products, Rivian recognizes our business has an upstream impact on communities and ecosystems. As a result, we are actively seeking ways to minimize that impact wherever possible, while still leading in the areas of transportation and energy technology. We are also acutely aware of the fact that mineral extraction needs to be placed in the context of local community well-being and ecosystem fragility and importance. Some places should have a level of permanent protection and specifically prohibit, or limit harmful extractive uses. Those decisions should be made within a modern framework.

Rivian supports updating our domestic mining law for the 21st century. The planning, protection and consultation elements of this bill will allow the United States to expand and lead in mineral resource procurement while still adhering to our bedrock environmental laws and protecting America's special places. The United States has such strong environmental laws that we could have the cleanest and safest mines in the world.

We also recognize that domestic mineral development needs to accelerate in the near term, and that the mining sector remains concerned about potentially punitive

[4] New Plug-in Electric Vehicle Sales in the United States Nearly Doubled from 2020 to 2021, U.S. Department of Energy. Mar. 1, 2022.

[5] Electric vehicles and hybrids surpass 10% of U.S. light-duty vehicle sales, US Energy Information Administration. Feb. 9. 2022.

[6] Electric cars fend off supply challenges to more than double global sales, International Energy Administration. Jan. 30, 2022.

gross royalties and permitting timelines. Permitting can be done in a more efficient and coordinated way within current frameworks and future conflicts and slowdowns could be avoided through thoughtful reform. We agree with mining industry calls to "focus on how to restore U.S. mining's competitiveness on the global stage, decrease our import reliance, and ensure that existing federal and state regulations are not duplicated." [7]

We must also look for new and better ways to obtain critical minerals and rare earth elements. American ingenuity and innovation are already happening in this space (e.g., mineral coproduction from geothermal brine and rare earth element recovery from abandoned mines). Not only could these novel methods of mineral extraction create new economic opportunities across America, they can also help rectify the environmental legacies of mining in the 19th and 20th centuries. Further consideration should be given to permitting around activity to reclaim rare earth elements and other minerals from brownfields and abandoned mines.

The federal government is making progress to address these issues in bipartisan fashion. The Biden Administration has taken early steps to address these issues, issuing Executive Orders to shore up our domestic supply chains and invoking the Defense Production Act for critical minerals. Rivian is a participant on the State Department's Clean Energy Resources Advisory Committee, an effort that has carried over from the previous Administration that we see as a signal of bipartisan support for securing mineral supplies beyond our borders.[8] There is also a strong spirit of bipartisanship that helped push through the Infrastructure Investment and Jobs Act last year and the Energy Policy Act of 2020, bills that funding for mineral processing and battery manufacturing. We can build on this progress and further enhance domestic mineral security by modernizing the law that governs the highest reaches of the supply chain—extraction.

A balance needs to be struck between catalyzing domestic development in the near term and ensuring taxpayers, tribes and local communities will receive fair returns on minerals extracted from public lands around them. Ultimately, funds from the proceeds should be set aside for cleanup and conservation.

This bill uses the oil and gas sector as a model, where domestic oil and gas developers adhere to a leasing and royalty system, and still have helped the United States become one of the largest producers in the world.[9] Offshore oil royalties go into the Land and Water Conservation Fund, which has protected thousands of acres across the country and was recently permanently funded by a bipartisan act of Congress—the Great American Outdoors Act.[10]

Of course, the economics for oil and gas are different than mining, but other countries like Canada and Australia show what's possible. These mineral-rich countries have robust mining sectors that exist within sophisticated royalty and permitting systems. Canadian and Australian mines generate billions in annual tax and royalty revenues for their governments each year,[11,12] demonstrating that having modern mining laws does not hinder domestic mineral development.

The goal to strengthen our mineral supply chain by accelerating domestic extraction must also include expansion in our midstream capacity as well. Mineral recovery from abandoned mines could help provide early feedstock to get new domestic processing facilities while new mines come online. By ensuring that the processing and refining of the raw materials that get extracted also remains domestic, we will ensure supply chain security that would otherwise be vulnerable to foreign influence if domestically sourced minerals still needed to be shipped overseas for processing.

Greater United States Leadership is Needed

More than ever, the United States must lead in the area of new transportation technology. Lithium-ion battery technology was invented by U.S. physicist John Goodenough, now at the University of Texas, Austin. Modern use of this battery technology in cars was introduced by the founders of Tesla Motors, Inc., California-based company that proved that long-range, highway capable, battery electric vehicles were not only possible, but in many respects, superior to the incumbent

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[7] White House push to reform mining law draws skepticism from opponents, advocates, S&P Global, Feb. 25, 2022.

[8] Inaugural Meeting of the Clean Energy Resources Advisory Committee, U.S. Department of State, Mar. 18, 2022.

[9] What countries are the top producers and consumers of oil?, U.S. Energy Information Administration, Dec. 8, 2021.

[10] About LWCF, LWCF Coalition.

[11] Minerals and the economy, Government of Canada, Feb. 3, 2022.

[12] Australian mining contributes record tax and royalty payments to fund better services and infrastructure, Minerals Council of Australia, May 17, 2021.

technology of internal combustion engines in terms of performance, efficiency, and utility.

The United States simply cannot let this technology that was discovered and commercially proven here at home to be dominated by other countries. We have already seen the dangers of allowing foreign countries dominate an industry. For example, around 90 percent of rare earth minerals are produced exclusively in China. In the early part of this decade, China sent world markets roiling when it drastically reduced the allowed export of rare earth minerals. With rare earth minerals used in critical industries as computer memory, rechargeable batteries, cell phones, air pollution control, magnets, fluorescent lighting; and critical defense uses such as precision-guided weapons, night vision goggles, communications equipment, and GPS equipment, restriction of this resource was a substantial threat to the U.S.' security and economy. Such foreign dominance cannot be allowed when it comes to new transportation technology.

In addition to historically being a global leader in automotive manufacturing and EV technology, the United States is also a leader in environmental conservation. Our National Parks are often called "America's Best Idea" and our bedrock environmental laws like the Clean Air Act, the Clean Water Act, the Endangered Species Act, and the National Environmental Policy Act set a high bar for environmental standards among nations.

The United States has the allies, resources, and industrial capability to create a robust domestic mineral supply chain, as well as high environmental standards to ensure it is built and operated ethically and responsibly.

Given the national, economic, and climate security risks associated with the current global mineral supply chain, the federal government must take an "all-of-the-above" approach. Updating our mining laws is one piece of that, but it must be complemented with a broader suite of domestic and international policy that would allow U.S. manufacturers to move fast in scaling up their production and securing their supply chains.

- **Accelerate EV Adoption.** Greater domestic demand for EVs will drive innovation and support domestic manufacturers' efforts to onshore their supply chains. The federal consumer EV tax credit should be expanded without unnecessary limitations that hold American manufacturers back from advancing the technology. The federal government could also create exceptions to state dealership protection laws,[13] which remain one of the biggest barriers to EV adoption in the US,[14] and avoid setting punitive EV fees.
- **Deploy federal funding in a more targeted and efficient manner.** The DOE Advanced Technology Vehicle Manufacturing loan program is well funded and expanded in scope, but it comes with administrative burdens that discourage potential applicants. The program can strike a better balance between holding loan holders accountable and not being burdensome.
- **Shore up allies and create new ones.** The United States must leverage its massive diplomatic and trade potential to further open global supply chains for both raw materials and talent. The International Development Finance Corporation could better coordinate on securing mineral supply chains. The State Department can begin reinvigorating American diplomatic efforts in Asia, Africa, and South America.
- **Update laws that regulate battery waste.** As EVs proliferate on U.S. roads, they become a strategic reserve of minerals that can be collected and recycled later on. The more we recycle, the less we will need to rely on domestic extraction. Congress can set standards while also maintaining flexibilities to suit the needs of a broad range of battery types, sizes, weights, applications, and users. Federal action should ensure industry is not beset with multiple duplicative state programs and also involve waste management companies.
- **Streamline EV test procedures.** The Environmental Protection Agency (EPA) and U.S. Department of Transportation (DOT) could further streamline test procedures initially created for internal combustion engine vehicles. This could include broader groupings of EVs certified in the same test group to more use of modeling in range and consumption testing.
- **Streamline federal fleet requirements for EVs.** To purchase vehicles directly from a manufacturer, federal agency fleet managers must go through

[13] How China Beat the U.S. in Electric Vehicle Manufacturing, Issues in Science and Technology, Winter 2021.

[14] The Simplest Way to Sell More Electric Cars in America, The Atlantic, Jan. 21, 2022.

the General Services Administration (GSA) or else face burdensome paperwork. The federal fleet procurement process could be streamlined, either through GSA or allowing agencies to purchase directly from a manufacturer.

- **Accelerate visas for engineers who want to help build the EV industry here in the United States.** Rivian has brought together key talent from around the world, specializing in automotive and aerospace engineering, semiconductor design, consumer electronics, and cloud software. The federal government should not stand in the way of people with exceptional talent who want to help build the future in America.

Thank you again for the opportunity to testify today. I look forward to your questions.

QUESTIONS SUBMITTED FOR THE RECORD TO MR. JAMES CHEN, VICE PRESIDENT OF PUBLIC POLICY, RIVIAN AUTOMOTIVE, LLC

Questions Submitted by Representative Stauber

Question 1. During an April hearing on EV minerals supply chains in the House Science, Space, and Technology Subcommittee on Investigations and Oversight, your colleague Chris Nevers, Senior Director of Public Policy for Rivian was asked to expand on how we should change U.S. mine permitting to help meet minerals demand for electric vehicle batteries. One of his recommendations was that Mining Law should be reformed in a way that supports "conflict avoidance and permitting efficiency . . . that protects special places while still expanding our domestic resources and manufacturing capacity."

(1a). What improvements would create permitting efficiencies to ultimately ensure adequate minerals supplies to meet your company's future demands and that also reduce our outsize reliance on foreign sources of minerals, some with less stringent environmental and labor standards?

Answer. Rivian supports increasing domestic mineral production, but not at the expense of our special places, health of Indigenous and rural communities and bedrock environmental laws.

With thoughtful collaboration between policymakers, industry, public interest groups, tribes and local communities, the United States can have the cleanest and safest mines in the world.

We agree that permitting could be done more efficiently under current law with better coordination between federal agencies and states to avoid duplicative processes. We support the provisions included in the Bipartisan Infrastructure Law and the goals and principles of the President's interagency working group to do that.

We believe that making decisions about appropriate places to mine at the front end of the process would increase permit certainty, and that will occur under proposals such as the House and Senate versions of the Clean Energy Minerals Reform Act, which will give land management agencies the ability to consider the appropriate use for our lands at the beginning of the process.

Another factor contributing to permitting inefficiency is the shortage of agency staff who oversees those processes. As Trout Unlimited wrote in their testimony before the Senate Energy and Natural Resources Committee last fall, "natural resource management agencies need staff to conduct timely environmental reviews, thorough permitting processes, and appropriate monitoring and mitigation. For instance, since 1995 the Forest Service has experienced a near 40 percent decline in non-fire personnel. That means fewer biologists, fewer engineers, fewer hydrologists, less community involvement, and fewer professionals available to ensure mining is done in a way that is compatible with other demands on our public lands."

We encourage Congress to find a middle path forward, one that ensures the global mineral race does not become a race to the bottom.

Question 2. According to a Feb. 2022 New York Times article, Rivian is struggling to fulfill orders due to supply chain disruptions for raw materials. In fact, customers that paid $1,000 down payments for both the R1T and the R1S were initially told that the truck would arrive in March or April this spring, but have now pushed those times out to the first half of 2023.

(2a). H.R. 7580 among other things, increases permitting timelines by adding additional requirements. Why are you supporting legislation that makes it more difficult for you to deliver your product by the timelines you promised to your customers?

Answer. Rivian supports modernizing the 1872 Mining Law for the 21st century, and increasing our domestic mineral production and processing capacity.

Rivian is not alone in dealing with supply chain constraints this year. The entire U.S. auto industry—and advanced manufacturing sectors more generally—are experiencing supply chain constraints due to numerous factors, including ripple effects from the global COVID-19 pandemic, historic inflation, rising transportation costs, and logistics disruptions.

Rivian is in business to build the kind of future our kids and our kids' kids deserve. As such, we take a long view on how we are building our business, sourcing materials over the long term, and making sure we do so in the most efficient but responsible way. With that, we firmly believe that we need to modernize the 1872 Mining Law to ensure that our mining industry leads in long-term social and environmental responsibility—so our natural world and the services it provides is sustained forever regardless of permitting timelines. Once established, we then support the continued iteration of permitting processes to become more efficient over time.

We acknowledged in our written testimony the different economics governing the mining sector compared to the oil and gas sector, as well as concerns from the mining industry around gross royalties. However, we believe some level of royalty is appropriate and can be set without discouraging new investment—and we have seen the mining industry indicate this as well. We pointed to allied nations like Australia and Canada that have modern mining laws and still have robust domestic mining sectors.

In our testimony, we recognized the need to strike a balance between catalyzing new domestic mining investment in the near term and ensuring some portion of future royalties be set aside for reclamation. Increasing domestic mineral production and modernizing mining laws are not mutually exclusive, and bills like H.R. 7580 would establish a framework that supports a responsible path forward for a new era of mining in America.

Mr. GRIJALVA. Thank you very much. Let me now recognize Mr. Sam Kalen. He is the William T. Schwartz Distinguished Professor of Law at the University of Wyoming College of Law.

Professor, you are recognized.

STATEMENT OF SAM KALEN, WILLIAM T. SCHWARTZ DISTINGUISHED PROFESSOR OF LAW, UNIVERSITY OF WYOMING COLLEGE OF LAW, LARAMIE, WYOMING

Mr. KALEN. Thank you for the opportunity to appear before you today and offer my views on the Mining Law of 1872. I also appreciate the opportunity to appear remotely. My remarks today are my own and do not necessarily reflect the views of the Wyoming College of Law or its employees.

As the nation's premier public lands scholar, Charles Wilkinson so aptly noted the 1872 Mining Law is one of the last remnants of what he called a lord of yesterday, anachronistic law that remains despite dramatic changes in policy since President Grant signed the law roughly 150 years ago.

With the law's sesquicentennial upon us, this is surely a propitious moment to reflect on the urgency of reform as a nation confronts how to address its need for clean energy minerals. And perhaps one starting point for reflection is how the need for mining law reform has been appreciated now for well over a century: the subject of my remarks today.

To begin with, it is worth noting that John Leshy, the expert on the mining law, explained roughly 35 years ago that the law has remained in perpetual motion for decades, evading reform and yet universally acknowledged to be ill-suited to modern times.

Historian Gordon Bakken, while explaining how the mining law was designed in the post-Civil War era to regularize and confirm mining practices, echoes an assessment by Jared Diamond that suggests that this Federal statute, and I quote, "is among the greatest failures of judgment in world history." That may sound a bit too hyperbolic, but as the former Secretary of the Interior, Ken Salazar, testified in 2009, the law, unfortunately, according to Interior Secretary Salazar at the time, "despite decade after decade of fights about how it is that we should reform the mining law, all of those efforts have failed."

My written testimony chronicles some of these efforts in detail, but a few salient points are worth noting.

As early as 1880, the Public Land Law Commission suggested the need for reform as it identified abuses surrounding the use of the 1872 Mining Law during the law's first decade. Then, as Congress, from the turn of the century on, began to develop policies for other resources on the public lands, it routinely rejected the 1872 Mining Law's approach of affording miners of hardrock minerals the ability to discover valuable mineral deposits on available public lands, and mined those minerals without paying any value back to the United States and the American people.

Today, consequently, the mining law stands alone amid the host of other natural resource programs that provide at least some measure of economic return to the public from the use of the nation's public lands. Indeed, as far as I am aware, the mining law remains unique worldwide in its failure to employ some form of valuation method for lands owned and administered by a Federal, State, or provincial government.

Not surprisingly, therefore, President Roosevelt's Interior Secretary in the 1930s called for leasing. The 1950s Paley Commission recommended establishing a leasing system. Then reforming the old law surfaced as a recommendation of the 1960s Public Land Law Review Commission. Interior Secretary Udall in 1969 lamented how reforming the 1872 law was one of—and I quote—"the most important pieces of unfinished business on the nation's natural resource agenda."

In its 1970 report, *One Third of the Nation's Land*, the Public Land Law Review Commission observed how "the General Mining Law of 1872 has been abused, but even without that abuse, it has many deficiencies," and recommended a combination of elements of the leasing system and ensuring a fair return to the United States.

Reform conversations continued throughout the 1970s, and even the U.S. Government Accountability Office, for example, carried forward a recommendation for reform in 1979, just to name one.

Today's hearing with the law's sesquicentennial upon us is part of a conversation that began back in the 1880s, and one that has continued almost unabated since. Reform is undeniably now part of the law's heritage, hopefully approaching a historic moment toward resolution.

I want to thank the Committee again for providing me with this opportunity to share my thoughts on mining law reform. Thank you.

[The prepared statement of Mr. Kalen follows:]

PREPARED STATEMENT OF PROFESSOR SAM KALEN, UNIVERSITY OF WYOMING COLLEGE OF LAW

Thank you for the opportunity to appear today to offer my views on Reforming the Mining Law of 1872, as it relates to H.R. 7580, the Clean Energy Minerals Reform Act of 2022. I also appreciate the opportunity to appear before you today remotely. My name is Sam Kalen, and I am the William T. Schwartz Distinguished Professor of law and Associate Dean at the Wyoming College of Law. I teach primarily in the field of environmental, natural resources, and energy law and have written extensively on these subjects.[1] I also have worked on mining law issues for a considerable part of my professional career. My remarks today are my own and do not necessarily reflect the views of the Wyoming College of Law or its employees.

As one of the nation's premier public land scholars, Charles Wilkinson, so aptly noted, the 1872 Mining Law is one of the last remnants of what he called a Lord of Yesterday, an anachronistic law that remains despite dramatic changes in policy since President Grant signed the Act into law 150 years ago.[2] With the law's sesquicentennial upon us, this is surely a propitious occasion to reflect on the urgency of reform—as the nation confronts how to address its need for clean energy minerals. And perhaps one starting point for reflection is how the need for Mining Law reform has been appreciated for well over a century, the principal subject of my testimony.

To begin with, it's worth noting that John Leshy, the expert on the Mining Law, explained roughly 35 years ago that the law has remained in perpetual motion for decades, evading reform and yet universally acknowledged to be ill-suited to modern times.[3] Historian Gordon Bakken, while explaining how the Mining Law was designed in the post-Civil War era to regularize and confirm mining practices, echoes an assessment by Jared Diamond that suggests that, "this federal statute . . . [is] among the greatest failures of judgment in world history."[4] That may sound a bit too hyperbolic, but as former Secretary of the Interior Ken Salazar testified in 2009 the law unfortunately, "[d]espite decade after decade of fights about how it is that we should reform the Mining Law all of those efforts have failed."[5]

These failed efforts, however, should not dissuade Congress from crafting a mining law reform package that corresponds to modern challenges: recognizing that a green economy may require producing some domestic critical minerals, yet only allowing such production to occur if we——

(a) abandon the location system that returns no value to the American taxpayers for the use of the Nation's public lands—rather likely costs the American taxpayer—and, instead, replace it with a leasing system that, through market-based royalties and rental fees, ensures a fair return for the use of the Nation's public lands;

(b) protect our natural resources and ensure that activities will not result in unnecessary or undue degradation of the public lands—and through a leasing system by only allowing leasing where and when the government can be assured that those values will be protected;

(c) engage in meaningful consultations with Tribal Nations and Indigenous peoples to ensure that no activities will be allowed in areas of historic, cultural, or religious significance, or allowed in any area that is otherwise protected or secured by a treaty or other arrangement; and finally

(d) address the clean-up of the Nation's public lands from historic mining operations by imposing a fee on mining operations to defray the cost of reclaiming thousands of abandoned mines scattered across the public lands.[6]

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[1] *See, e.g.*, Sam Kalen, *An 1872 Mining law for the New Millennium*, 71 Colo. L. Rev. 343 (2000); Sam Kalen, *Mining our Future Critical Minerals: Does Darkness Await Us?*, 51 Envtl. L. Rep. 11006 (Dec. 2021).

[2] Charles F. Wilkinson, Crossing the Next Meridian: Land, Water, and the Future of the West (1992).

[3] John D. Leshy, The Mining Law: A Study in Perpetual Motion (1987).

[4] Gordon Morris Bakken, The Mining Law of 1872: Past, Politics and Prospects 2 (2008). For another historical account, See Duane A. Smith, Mining America: The Industry and the Environment, 1800–1980 (1987).

[5] *Mining Law Reform, Hearing Before the Committee on Energy and Natural Resources, Receive Testimony on S. 796, Hardrock Mining and Reclamation Act of 2009 and S. 140, Abandoned Mine Reclamation Act of 2009, U.S. Senate*, 111th Cong. (2009) (statement of Ken Salazar, Secretary, Department of the Interior).

[6] For one report on the issue of cleaning up abandoned mines, see U.S. Government Accountability Office, Abandoned Hardrock Mines: Information On Number Of Mines, Expenditures, And Factors That Limit Efforts To Address Hazards (March 2020).

My attached December 2021 article, Mining our Future Critical Minerals: Does Darkness Await Us?[7], goes into some of these issues in a bit more detail and I will not repeat that detail here, but one salient point is worth emphasizing. (See: ***https://www.eli.org/sites/default/files/files-pdf/51.11006.pdf***)

The need for mining law reform has been apparent for well over a century. As early as 1880, the Public Land Commission suggested the need for reform as it identified abuses surrounding the use of the 1872 Mining Law during just the law's first decade.[8] Indeed, an initial economic justification for allowing the free exploitation of the Nation's resources was dubious from the outset.[9] Then, as Congress from the turn of the century on began to develop policies for other resources on the public lands, it routinely rejected the 1872 Mining Law's approach of affording miners of hardrock minerals the ability to discover valuable mineral deposits on available public lands and mine those minerals *without paying any value back to the U.S. and the American people*. Today, consequently, the Mining Law stands alone amid the host of other natural resource programs that provide at least some measure of economic return to the public from the use of the nation's public lands. Indeed, as far as I am aware, the Mining Law remains unique worldwide in its failure to employ some form of valuation method for lands owned and administered by a federal, state, or provincial government.

Not surprisingly, therefore, Interior Secretary Harold Ickes in the 1930s promoted leasing hardrock minerals.[10] So too, the highly regarded 1950s Paley Commission recommended establishing a leasing system.[11] And Interior Secretary Stewart Udall, in 1969, similarly recommended abandoning the location system in favor of leasing. "After eight years in office," the Secretary lamented, "I have come to the conclusion that the most important piece of unfinished business on the nation's natural resource agenda is the complete replacement of the Mining Law of 1872" because its "deficiencies . . . cannot be remedied by tinkering."[12] Reforming the old law surfaced as a recommendation of the 1960s Public Land Law Review Commission. In its 1970 report, *One Third of the Nation's Land*, it observed how "[t]he General Mining Law of 1872 has been abused, but even without that abuse, it has many deficiencies," and recommended a combination of elements of the leasing system and ensuring a fair return to the United States.[13] When digesting the Commission's work, the *New York Times* reported how "all mineral interests known to be of value should be reserved with exploration and development discretionary in the Federal government and a uniform policy adopted relative to all reserved mineral interests."[14] Reform conversations continued throughout the 1970s;[15] and even the U.S. Government Accountability Office (GAO), for example, carried forward a recommendation for reform in 1979,[16] just to name one. And mining law reform surfaced as a principal concern of Secretary Babbitt, as well, during the 1990s.[17]

Today's hearing, with the law's sesquicentennial upon us, is part of a conversation that began back in the 1880s, and one that has continued almost unabated since. Reform is undeniably now part of the law's heritage—hopefully approaching a historic moment toward resolution. I want to thank the Committee again for providing me with this opportunity to share my thoughts on Mining Law Reform.

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[7] *See supra* note 1.

[8] Report of the Public Lands Commission, Created by the Act of March 3, 1879, Relating to the Public Lands in the Western Portion of the United States and the Operation of Existing Land Laws xix, H. Exec. Doc. No. 46, 46th Cong., 2d Sess. (1880).

[9] *See* Paul W. Gates, with a Chapter by Robert W. Swenson, History of Public Land Law Development 717 (1968) (Written for the Public Land Law Review Commission). Quite possibly, "the basic problem with the 1866 Act [the precursor to the 1872 Act] was that no revenue was reserved for the government. It is entirely possible that the mistake which the eastern bloc . . . really made was in their conclusion that leasing, which had never really been studied by Congress or the government, was not workable." *Id*. at 719, 723.

[10] Wilkinson, *supra* note 2, at 318.

[11] Leshy, *supra* note 3, at 301.

[12] *Id*. at 302.

[13] Public Land Law Review Commission, One Third of the Nation's Land 121–138 (1970).

[14] *Digest of the Commission's Report and Recommendations on Public Land Use*, N.Y. Times, June 24, 1970, https://www.nytimes.com/1970/06/24/archives/digest-of-the-commissions-report-and-recommendations-on-public-land.html.

[15] Leshy, *supra* note 3, at 304–05.

[16] GAO, Mining Law Reform and Balanced Resource Management (1979) (EMD-78-93).

[17] *See* Kalen, *An 1872 Mining law for the New Millennium*, supra note 1.

Mr. GRIJALVA. Thank you very much. Let me now recognize our final witness.

Ms. Debra Struhsacker is an environmental permitting and government relations consultant, and co-founder and director of the Women's Mining Coalition.

Ms. Struhsacker, you are recognized. Thank you.

STATEMENT OF DEBRA STRUHSACKER, ENVIRONMENTAL PERMITTING & GOVERNMENT RELATIONS CONSULTANT, CO-FOUNDER AND DIRECTOR, WOMEN'S MINING COALITION, RENO, NEVADA

Ms. STRUHSACKER. Thank you, Chairman Grijalva and Ranking Member Herrell. I very much appreciate the opportunity to testify today on behalf of the Women's Mining Coalition.

Members of the Subcommittee, the United States is standing at a minerals crossroad. Either we can produce minerals from domestic mines, which are the cleanest and safest mines in the world, or we can import minerals from our adversaries, ignoring Chairman Manchin's warning that Russia and China will weaponize critical minerals against us, jeopardize our national security and economy, and thwart the transition to clean energy.

And enacting H.R. 7580 will put Russia and China in charge of our future. Please don't be fooled by the bill's title, the "Clean Energy Minerals Reform Act." This bill will not promote responsible development of critical minerals, because it is designed to restrict mining on Federal lands for all minerals, including the lithium, rare earths, antimony, cobalt, nickel, graphite, and copper that are critical for clean energy.

President Biden's Interagency Working Group has called for public comments to inform future mining law legislation and is seeking ideas about how to incentivize critical minerals production, structure a royalty to reward taxpayers, and still encourage mineral production and improve permitting. Forging ahead with this bill to gut the mining law prior to the public comment deadline renders the Interagency Working Group's work irrelevant.

H.R. 7580 is premised on an anachronistic mischaracterization of mining that ignores the environmental safeguards that Federal environmental laws require at modern mines. There are no exemptions or loopholes for mining in the Clean Air Act, the Clean Water Act, the Endangered Species Act, or any of the other Federal environmental laws applicable to mining. Mines must comply with the same Federal environmental laws as all other industries. The allegation that the mining law needs overhauling because it does not include environmental protection is tantamount to saying the Clean Water Act is deficient because it does not protect air quality.

The mining law governs land tenure and how citizens obtain mineral rights on certain Western public lands. If claim owners beat the daunting 1 in 1,000 odds of finding a mineral deposit that can become a mine, they must then secure environmental permits and provide the Federal Government with financial assurance to guarantee the mine will be reclaimed before mining can begin. The U.S. permitting process takes 7 to 10 years to complete, compared to Canada and Australia, where mines get permitted in 2 to 3 years with similar environmental safeguards as U.S. mines. The

lengthy U.S. permitting process means that there are no shovel-ready projects and is the main reason why there are only 30 active metal mines in Nevada, which is the country's largest public lands mining state.

Discussing the need to increase domestic critical minerals production, U.S. Energy Secretary Jennifer Granholm recently said, "It takes forever to get a new permit. How crazy is that?" H.R. 7580 transforms Secretary Granholm's takes-forever, crazy permitting process into Mission Impossible by creating unachievable standards, allowing mine opponents to declare many areas unsuitable for mining, and placing more lands off limits.

In a 2018 final rule, the U.S. EPA concluded hardrock mining regulations and bonding requirements provide comprehensive and effective environmental protection and guaranteed today's mines will not become tomorrow's environmental problems. But ignoring the EPA's finding, H.R. 7580 fills an imaginary regulatory vacuum with impractical new requirements.

The industry has long supported a royalty structure that places mineral producers and taxpayers on the same side of the financial equation, so everyone can go to the bank together. But the gross royalty and fees in H.R. 7580 are not intended to generate revenue. They are designed to make mining unprofitable in order to curtail mining.

The mandatory conversion of mining claims into leases in H.R. 7580 will destroy self initiation and the security of land tenure needed to justify the hundreds of millions of dollars of private-sector capital required to discover minerals and develop mines.

And the system in H.R. 7580 is based on an existing program for acquired lands, which fails to produce minerals and has only generated $8.7 million in royalties in Fiscal Year 2018.

H.R. 7580 will cede control of our mineral future to Russia and China. It guarantees the United States will continue down a path of increased mineral insecurity, reduced prosperity, and a much more dangerous future.

Thank you for this opportunity to testify. I am sorry I can't be there in person. My husband came down with COVID, so I could not travel at the last minute. But I look forward to your questions.

[The prepared statement of Ms. Struhsacker follows:]

PREPARED STATEMENT OF DEBRA W. STRUHSACKER, ON BEHALF OF THE WOMEN'S MINING COALITION

Introduction: Congress Needs to Wait for the Public Input Requested by President Biden's Interagency Working Group Before Considering H.R. 7580 to Gut the Mining Law

In June, 2021, the White House released the 100-Day review entitled "Building Resilient Supply Chains, Revitalizing American Manufacturing, and Fostering Broad-Based Growth" that directed the Federal government to establish an inter-agency team:

> ". . . with expertise in mine permitting and environmental law to identify gaps in statutes and regulations that may need to be updated to ensure new production meets strong environmental standards throughout the life cycle of the project; ensure meaningful community consultation and consultation with tribal nations, respecting the government-to-government relationship, at all stages of the mining process; and examine opportunities

> to reduce time, cost, and risk of permitting without compromising these strong environmental and consultation benchmarks." [1]

On March 31, 2022, this Interagency Working Group (IWG) [2] published a Federal Register Request for Information (RFI) asking the public to comment on important questions about the Mining Law, mining regulations and permitting (FR Vol 87, No. 62, pp. 18811–18812.) The public comment deadline is July 31, 2022.

As explained in the RFI, the IWG is seeking this public input in order to:

> "assess the adequacy of existing laws, regulations, and permitting processes, determine whether changes to those are necessary to meet the goals laid out in the recommendations from E.O. 14017 100-Day reviews, and if it concludes that changes are necessary, *make recommendations to the appropriate Federal agencies or Congress on how to implement those changes*." (emphasis added)

Congress must not ignore the RFI's explicit request for public input on *whether* existing laws and regulations need to be changed and *if* changes are warranted, *how* to implement those changes. Initiating the legislative debate about Chairman Grijalva's new bill, The Clean Energy Reform Act, H.R. 7580, is premature without first obtaining the public's input on *whether*, *if*, and *how* laws and regulations should be changed. This hearing has put the cart before the horse and signals the House Subcommittee on Energy and Mineral Resources is not interested in and does not value the public's perspectives on mining. Congress should table H.R. 7580 until it has received the public comments in response to the IWG's RFI. The public's comments must be considered as part of the legislative debate whether to functionally gut the Mining Law by enacting H.R. 7580.

The following sections provide the Women's Mining Coalition's preliminary responses to the RFI questions that are directly relevant to Congress' evaluation of H.R. 7580.

I. RFI Question 1: Eliminating Mining Claims and Substituting a Leasing System

> "Would alternatives to the existing claim system, such as leasing, or adjustments to the current system, such as incorporating mining into comprehensive federal lands use assessments and planning, lead to better outcomes for communities, environment and a secure domestic supply of minerals? If so, how should such an alternative or adjusted system be structured?"

A. The Mining Claims System

The Mining Law governs land tenure, authorizes citizens to obtain mineral rights on certain western public domain lands, and gives claim owners the necessary security of land tenure to justify the enormous investments required to explore for minerals and develop mines. Substituting the leasing system proposed in H.R. 7580 will eliminate land tenure security, significantly reduce mineral exploration and development on public lands, and increase U.S. reliance on foreign minerals. H.R. 7580 upends the mining claims system by requiring mandatory conversion of life-of-mine claims to time-limited leases. This ill-conceived, impractical, and unworkable proposal will substantially interfere with the Biden Administration's policies to increase domestic mineral production in order to strengthen domestic supply chains and provide the minerals needed to build clean energy infrastructure. It will also precipitate Fifth Amendment takings claims against the federal government.

The current mining claims system is an effective way for the public to benefit from private-sector investment in mineral exploration and development projects. Under current law, U.S. citizens can take the initiative to locate claims based on preliminary concepts about where minerals may be located and then make substantial investments of time, knowledge, and money to test these concepts to explore for minerals on their claims with the hope of discovering a mineral deposit that can be developed into a mine. This process, which is known as self-initiation, greatly

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[1] https://www.whitehouse.gov/wp-content/uploads/2021/06/100-day-supply-chain-review-report.pdf, page 14. This team was developed in response to President Biden's February 24, 2021 Executive Order 14017, "America's Supply Chains."

[2] The Department of the Interior chairs the IWG. The other federal IWG agencies include the Department of Agriculture through the Forest Service; the Environmental Protection Agency; the Army Corps of Engineers; the Departments of Commerce, Energy, and State; the Council on Environmental Quality; and the National Economic Council.

benefits our Nation because it effectively leverages private-sector investment that transforms undeveloped federal land into mining operations that create jobs, pay taxes, and provide the minerals the country needs—at no risk or expense whatsoever to U.S. taxpayers.

Self-initiation gives prospectors and geologists the opportunity to pursue their ideas about where mineral deposits may be located and identify promising mineral targets. Finding a mineral deposit is a daunting task that takes a lot of skill—as well as luck. According to the National Research Council/National Academy of Science 1999 report,[3] 1,000 mineral targets must be identified and evaluated to discover a single deposit that can become a mine.

Another benefit of the claims system is that it generates modest revenue for the Treasury. Mine claimants pay the U.S. Bureau of Land Management (BLM) annual claim maintenance fees to keep their claims in good standing. The current claim maintenance fee is $165 per claim.[4] The claim maintenance fee amount is indexed to the Consumer Price Index adjusted accordingly every five years. In FY 2020, BLM collected over $69.4 million in claim maintenance and other Mining Law holding fees.[5]

B. The Minerals Leasing System for Hardrock Minerals

The leasing system proposed in H.R. 7580 replicates the 75-year old hardrock minerals leasing program applicable on acquired lands,[6] which has a proven track record of being impractical and unproductive in terms of producing minerals and generating royalty payments. If this unsuccessful leasing program is imposed upon locatable minerals on western public domain lands, it will completely destroy self-initiation by putting the federal government in charge of deciding where and when geologists can look for minerals and where and for how long miners can operate a mine. These harsh land tenure restrictions will severely compromise the Nation's ability to capitalize on private capital to discover and develop domestic mineral deposits. The net result will be significantly diminished domestic mineral production and increased reliance on foreign minerals.

In marked contrast to the federal mineral leasing system for hardrock minerals on acquired lands, the federal mineral leasing system for oil, gas, and coal works for these energy commodities. Leasing is suitable for oil, gas, and coal deposits because private industry and the federal government already know where oil, gas, and coal deposits are located prior to leases being offered and issued on public lands. Oil, gas and coal occur in well understood sedimentary basins where geophysical surveys can identify targets with a high likelihood of success. Once an oil or gas well is drilled, it can readily be modified into a production well.

The geology of most hardrock mineral deposits is quite different than oil, gas, and coal deposits. Most hardrock mineral deposits occur in areas with much more complex and diverse geology and typically have unique geologic, geochemical, and metallurgical characteristics that make each hardrock mineral deposit unique and therefore difficult to find. Consequently, neither the federal government nor mineral prospectors know with certainty where hardrock mineral deposits are located. This is one of the main reasons the hardrock minerals leasing program applicable to acquired lands (as well as on public domain lands on national forests in Minnesota and in some Eastern states) does not work for hardrock minerals and is failing to generate meaningful mineral production and federal royalty payments, despite the highly prospective geology on acquired lands in Minnesota and Missouri.

Discovering a hardrock mineral deposit requires extensive exploration and development drilling because the location, depth, mineral grade, and economic viability of hardrock mineral deposits is generally unknown. Once drilling has sufficiently defined the deposit to support a decision to develop it into a mine, huge investments on the order of many hundreds of millions to more than a billion dollars are typically required to build the mine and processing facilities.

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[3] Hardrock Mining on Federal Lands, page 24.

[4] https://www.blm.gov/programs/energy-and-minerals/mining-and-minerals/locatable-minerals/mining-claims/fees.

[5] https://www.blm.gov/sites/blm.gov/files/docs/2021-08/PublicLandStatistics2020.pdf, Table 3-32, Page 158.

[6] The Minerals Leasing Act for Acquired Lands of 1947, 30 U.S.C. §§ 351-359.

Exhibit I, the July 2021 testimony from Mr. Jim Cress before this Subcommittee, provides a detailed and informative discussion of the many reasons why the federal hardrock mineral leasing program on acquired lands is a failure. As discussed in Mr. Cress' testimony, some of the reasons why the federal hardrock leasing program is a failure include the following:

- It was not designed to promote discovery and development of hardrock minerals;
- It contains no rights of self-initiation or rights to mine any discovered minerals;
- Prospecting licenses or permits require prior consent from the surface management agency, are limited to two years with a maximum four-year discretionary extension, and are restricted to 2,560 acres per permit and a 20,480-acre per person/company per state limit; and
- Hardrock mining leases are limited to a primary term of 20 years, which may not be long enough to develop and mine some deposits. This artificial time constraint is not in the public's best interest. A mining lease must provide security of tenure for as long as it takes to develop and mine a deposit.

The leasing acreage and time limits in H.R. 7580, which are identical to those in the hardrock minerals leasing program applicable on acquired lands, are a proven impediment to mineral exploration and development of hardrock minerals on these lands. The acreage and time limits in H.R. 7580 will be similarly unsuccessful in producing minerals or generating royalty payments from mining operations on public domain lands.

Imposing the 20,480-acre (1,024 mining claims) per company per state limit in H.R. 7580 will require the forfeiture of the private property rights on thousands of mining claims located within the boundaries of currently producing mining properties.[7] This private property seizure will completely disrupt active mining operations and precipitate numerous Fifth Amendment takings claims as the government forces the premature closure of viable mining operations or the divestiture of lands that are part of productive mining operations. Then the government will have to expend taxpayer funds to satisfy taking claims without the benefit of any mineral production.

The temporary (two to six year) and spatially constrained (2,560-acre, 128 claim maximum) prospecting license in H.R. 7580 is completely unworkable for hardrock minerals. To put these limits into perspective, most promising mineral exploration projects are typically comprised of several hundred to several thousand claims to give the owner the ability to conduct mineral exploration over a broad area with mineral potential. It is not uncommon for exploration activities to take a decade or longer to discover and then define the size and grade of a mineral deposit. Additionally, Title I Section 105 of H.R. 7580 is a disincentive to small miners, who after prospecting and finding a mineral deposit, cannot legally transfer their lease to a development company, but can only sell or transfer to a spouse or dependent.

The mine leasing provisions in H.R. 7580 are equally problematic. Companies with a mineral discovery may apply for a 20-year non-competitive mining lease if the surface management agency (e.g., BLM or the USFS) consents to issuing the lease. Giving BLM or the USFS the discretionary authority to decide whether to issue a mining lease puts a company's entire exploration investment at risk and creates uncertainty that will completely chill mineral exploration and development in the U.S. Companies will not be able to justify to their shareholders expenditures of the tens to hundreds of millions of dollars required to discover a valuable mineral deposit if there is no guarantee that they will have the right to develop those minerals.

The Biden Administration's recent decision to cancel the Twin Metals mineral leases in the Superior National Forest in Minnesota vividly illustrates the extent of the government's discretionary authority to deny or cancel mining leases after a company has invested hundreds of millions of dollars to explore and develop its leases.[8] The government's cancellation of the Twin Metals mining leases clearly demonstrates that mineral lessees have absolutely no security of tenure under the federal hardrock minerals leasing program on acquired lands. The adoption of this

[7] For example, Nevada mining companies operate multiple mines and own thousands of mining claims that cover their active mining operations throughout the state.

[8] Twin Metals Minnesota has invested over $500 million to develop a world-class critical minerals deposit containing nickel, cobalt, copper, platinum, and palladium, https://www.mprnews.org/story/2022/02/15/mn-dnr-suspends-environmental-review-of-controversial-twin-metals-mine-proposal.

program in H.R. 7580 on western public domain lands and the requirement that mining claims be converted into mineral leases will similarly eliminate security of tenure on western public domain lands.

The 20-year primary term for a mining lease is another serious barrier to mineral investment because it is not unusual for mines to operate for longer than 20 years. This is often essential to generate a satisfactory, long-term return on investment that is needed to take a project forward. Without the assurance that a mine can continue to operate after 20 years, companies will be very reluctant to make the enormous investment required to develop a mine.

Statistics about the hardrock minerals leasing program for acquired lands available from BLM and the Government Accountability Office (GAO) clearly show this program fails to generate meaningful royalties from the small volume of hardrock minerals produced on acquired lands. According to the BLM,[9] there are 56 hardrock minerals leases covering a miniscule 43,804 acres nationwide on acquired lands. With 36 leases, Missouri is the state with the most leases where leases cover 33,623 acres located in the Mark Twain National Forest. The GAO[10] reports only 20 hardrock mineral leases nationwide have operating mines, just seven of which pay federal royalties. In fiscal year 2018, these seven operations paid a meager $8.7 million in federal royalties.[11] It is likely that the six operating leases at Missouri lead, zinc, and copper mines paid most of this royalty.

The fourteen other hardrock mineral leases with active mining cover an aggregate of only 2,304 acres and include mostly small mines located in the following states: Arkansas (quartz and gemstones, 457 acres); California (gold, 41 acres); Idaho (gemstones and gold, 121 acres); Minnesota (limestone, 5 acres); Montana (gold, 57 acres); North Carolina (olivine, 158 acres); South Carolina (gold, 1,109 acres); and Virginia (limestone, 355 acres.)

The proposal in H.R. 7580 to replicate the unsuccessful hardrock minerals leasing program on acquired and Eastern States lands and unwisely impose it on western public domain lands is neither justified nor rational. Based on the documented failure of the hardrock mineral leasing system for acquired lands, it is definitely not in the public's interest to replace mining claims with mineral leases. Besides increasing the country's reliance on foreign minerals and exposing the federal government to substantial takings litigation, this baseless extinguishment of private property rights will destroy the economic engines that sustain rural mining communities. Forced mine closures will kill high-paying mining jobs and deprive states and local communities of the tax revenues and other substantial economic benefits that the mines generate.

Given the current extraordinary demand for minerals to build clean energy infrastructure, to power electric vehicles, and to electrify the Nation, this is an exceptionally inappropriate time to make sweeping changes to the land tenure system in the Mining Law. Even if H.R. 7580 were proposing a satisfactory leasing scheme that provided security of tenure, this is the wrong time to make such a change because the transition from claims to leases would dramatically slow down mineral exploration and development. The net result would be reduced mineral production during a multi-year transition period and increased reliance on foreign minerals.

Western mining states with mineral leasing programs on state lands or trust lands work well because the lessor and lessee have the common goal of finding a mineral deposit that can become a mine that pays royalties to the lessor. In marked contrast, in H.R. 7580, the lessor (e.g., the federal government) is a hostile landlord that creates barriers to mineral exploration and development.

For example, the Utah School and Institutional Trust Lands Administration (SITLA)[12] is a successful and productive minerals leasing program. SITLA's goal is to enter into exploration leases that may discover mineral deposits that can be developed into royalty-generating mines. SITLA issues exploration and mining leases to fulfill its fiduciary duty to its Utah school system beneficiaries to support exploration leading to development and generation of a royalty aimed toward a beneficiary.

II. RFI Question 2: Mining Best Practice Standards

> "Are there international mining best practices or standards that the United States should consider adopting, or encouraging the U.S. mining industry

[9] BLM 2020 Public Land Statistics, *op. cit.*, page 115.

[10] Mining on Federal Lands, GAO-20-461R, May 28, 2020, https://www.gao.gov/products/gao-20-461r.

[11] GAO May 2020, *op. cit.*, page 10.

[12] https://trustlands.utah.gov.

to adopt? If so, which practices or standards and what improvements or benefits would they provide?"

A. Overview of International Mining Standards

There are three types of international standard: country requirements; investor standards; and voluntary standards.

Country standards are created based on the laws and specific context of each country. While most standards of developed nations share intent and content, they also include country-specific requirements that would not be applicable elsewhere due mainly to differences in site characteristics. Many countries have based their programs on the laws, regulations, and standards developed and improved in the U.S. over the last 50 years. The legal framework and guidelines governing the responsible development of mineral resources of the U.S. are more comprehensive and rigorously tested than in any other country in the world.

Investor standards are developed by organizations that dictate minimum requirements for financing projects. Organizations such as the World Bank, the International Finance Corporation (IFC), the Equator Principles (EP) Association, the Organisation for Economic Co-operation and Development (OECD), and the European Bank for Reconstruction and Development (EBRD) have developed minimum environmental and social standards and guidelines for various industries including mining. These are intended as risk management frameworks for financial institutions to identify, assess and manage environmental and social risks when financing projects, particularly for projects in countries with limited governance frameworks.

The U.S. is classified as an Equator Principles Designated Country because it is a member of the OECD and is a World Bank High Income Country. The Equator Principles define Designated Countries, such as the U.S. as "*those countries deemed to have robust environmental and social governance, legislation systems and institutional capacity designed to protect their people and the natural environment*."[13] This acknowledges that the legal framework for the protection of the environment and people in the U.S. meets or exceeds the Equator Principles standards for environmental and social performance.

Voluntary standards from organizations such as the International Council on Mining and Metals (ICMM), the International Cyanide Management Institute (ICMI), the International Union for Conservation of Nature (IUCN), and others provide international standards and guidance on specific environmental or social aspects affecting the environmental and social performance of mining operations. These standards and guidance protocols tend to be either topic specific or general in nature and acknowledge the importance of considering country- and site-specific context in the application of the standards and guidelines. Some of these standards, such as the ICMI Cyanide Code were based entirely or primarily on the standards and guidelines developed in the U.S. Other voluntary standards that guide the mining international mining industry are internal corporate standards that are used to guide the governance of their operations in countries without robust environmental and social government and legal frameworks. These are often based on the requirements applicable to mining operations in the U.S.

B. Nevada has the Gold Standard of Mining Regulation and Financial Assurance Programs

Congress does not need to look to other countries for mining best practices and standards that should be imported into the U.S. because other countries typically look to the U.S. for guidance when establishing their mineral regulatory and financial assurance programs. In particular, the Nevada Division of Environmental Protection/Bureau of Mining Regulation and Reclamation's (NDEP/BMRR's) regulations governing hardrock mineral exploration, development, mine closure, and financial assurance requirements, coupled with the federal land management agencies' (e.g., BLM and the U.S. Forest Service, USFS) are widely considered to be the "gold standard" of modern regulations for hardrock minerals. Many foreign countries have sought NDEP/BMRR's advice when establishing or updating their mining regulatory programs.

In Nevada, the BLM, USFS, and NDEP/BMRR have a Memorandum of Understanding (MOU) that governs how these federal and state regulatory agencies seamlessly integrate and coordinate their respective regulatory and financial assurance requirements. Title III of H.R. 7580 would dismantle this arrangement, reinvent the wheel, and add some corners to what is currently a smoothly running

[13] The Equator Principles: EP4. July 2020. Pg. 24.

program that provides comprehensive environmental protection during and after mine operation and closure and highly successful reclamation results.

C. Overview of Environmental Regulatory Programs for Modern Mines

Modern U.S. mines must comply with the same environmental laws and regulations as other manufacturing facilities and industrial projects. Additionally, surface management and reclamation laws govern mineral exploration and mining projects. Unlike many other industries, miners must reclaim the land when mining is completed and provide state and federal regulators with reclamation bonds and other forms of financial assurance to guarantee the mine will be properly reclaimed. The financial assurance amount is calculated on the basis of what it would cost the government to reclaim the mine as well as providing for long-term and care maintenance as necessary.

In 2018, the U.S. Environmental Protection Agency (EPA) issued a final rulemaking for Section 108(b) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly called the "Superfund," that determined EPA did not need to develop a separate financial assurance program for the hardrock (metals) mining industry. Instead, EPA found that BLM's, the USFS', and the states' environmental regulations and financial assurance requirements effectively protect the environment at modern mining operations and guarantee that taxpayers will not have to pay to reclaim mines.

EPA's conclusions about modern mining practices disproves mining critics' perennial distortions that modern mines are not safe for the environment. As EPA recognized, the environmental laws and regulations enacted since the late 1960s have had an enormous impact in changing how modern mines operate. Prior to about 1960, there were no state or federal environmental rules governing mining or other industries. Mining started in the western U.S. in the mid-1800s and was completely unregulated for more than a century. Congress enacted the country's first environmental laws in the late 1960s. Most states did not start passing environmental laws until the 1970s and 1980s.

During the era of unregulated mining, gravity was the miner's best friend. Miners typically deposited mine wastes (mill tailings, waste rock, and smelter slag) directly on the ground in the nearest valley or low area. Once the ore was exhausted or falling metal prices made mining unprofitable, miners commonly moved on to the next prospect and abandoned the old one, giving no thought to reclaiming the land.

While this lack of environmental protection and reclamation is unacceptable when viewed through the lens of our modern-day commitment to protect the environment, it is important to understand that mines of the past were no different than other contemporaneous industries that operated without any environmental controls. Past mining and industrial practices did not use environmental safeguards because protecting the environment was not on anyone's radar screen. Back then, society did not consider the long-term consequences of mining or other industrial and manufacturing activities.

Pre-regulation mines produced the metals that helped build America, tell the story of the development of the West, and helped win two world wars. Although we recognize the important history and heritage these mines represent, we are now left to deal with a difficult legacy of the safety hazards and environmental problems left behind.

The 1970s began a new era of environmental awareness as America celebrated the first Earth Day on April 22, 1970. In response to the country's new commitment to clean-up the environment and minimize the potential for future environmental pollution, Congress enacted numerous environmental laws in the 1970s and 1980s shown in Table 1. States quickly followed suit, enacting state laws to implement or complement the federal environmental statutes. Depending on the environmental site conditions at a given site, most or all of these laws govern modern mining operations.

Table 1
Chronology of Enactment of Federal Environmental Protection Laws

Decade Enacted	Partial List of Federal Environmental Laws
1960s	National Historic Preservation Act
	Air Quality Act
	National Environmental Policy Act
	Wilderness Act
	Solid Waste Disposal Act
1970s	Federal Water Pollution Control Act Amendments
	Clean Air Act
	Clean Water Act
	Endangered Species Act
	Marine Protection, Research and Sanctuaries Act
	Federal Land Management and Policy Act
	Uranium Mill Tailings Radiation Control Act
	Safe Drinking Water Act
	Resource Conservation and Recovery Act
	Toxic Substances Control Act
1980s	Safe Drinking Water Act Amendments of 1986
	Comprehensive Environmental Response, Compensation, and Liability Act
	Superfund Amendments and Reauthorization Act
	Archaeological Resources Protection Act
	Emergency Planning and Community Right to Know Act
	Water Quality Act Amendments to the Clean Water Act
1990s	Oil Pollution Act
	Hazardous Waste and Solid Waste Amendments Act
	Clean Air Act Amendments
	Safe Drinking Water Act Amendments of 1996
2000s	Small Business Liability Relief and Brownfields Revitalization Act

In 1974, the USFS enacted surface management regulations for locatable minerals at *36 C.F.R. Part 228 Subpart A* to protect the environment at hardrock mineral exploration and mining projects on National Forest System lands. The USFS regulations provide comprehensive environmental protection and require mine operators to minimize adverse environmental impacts whenever possible, and provide substantial financial assurance (reclamation bonds) to guarantee that mines will be reclaimed when mining is completed.

In 1980, BLM enacted surface management regulations for hardrock mining at 43 C.F.R. Subpart 3809 that require mineral exploration and development activities to prevent unnecessary or undue degradation.

BLM significantly updated the 3809 regulations in 2001, adding more detailed financial assurance requirements, establishing environmental performance standards that must be followed to comply with the mandate to prevent unnecessary or undue degradation, and providing authority for enforcement actions against non-compliant operators.

Prior to approving mineral activities on public lands, BLM and USFS must comply with the National Environmental Policy (NEPA) requirement to prepare either an Environmental Assessment or an Environmental Impact Statement (EIS).[14] Most mining proposals require the agency to prepare an EIS; many exploration projects can be authorized with an Environmental Assessment.

Generally speaking, there are more hardrock mining operations on BLM-administered lands compared to National Forest System lands. Over one-half of the country's 390,595 [15] active mining claims are located in Nevada. BLM and the USFS have authorized under 200,000 acres of surface disturbance for mineral exploration and development activities in Nevada, which is less than 0.32 percent of the roughly 60 million acres of Nevada's federal minerals estate and clearly demonstrates mining is a minor use of public lands in Nevada.

[14] Initial exploration projects that disturb fewer than five acres of BLM-administered lands can typically qualify for a Notice that does not require BLM to prepare a NEPA document. However, BLM reviews Notice applications to ensure that sensitive resources will not be impacted and to establish the financial assurance (reclamation bond) amount that the applicant must provide before any surface-disturbing activities commence.

[15] BLM 2020 Public Land Statistics, *op. cit*., page 125.

Despite being the country's largest mining state, there are only 30 active metal mines in Nevada.[16] These operations are fully bonded with over $3.4 billion in financial assurance instruments provided to BLM, USFS, and the NDEP/BMRR to guarantee Nevada's mineral exploration and mine sites will be reclaimed. The evolution of Nevada's mining regulations and financial assurance program since 1980 when the State's reclamation law was first enacted illustrates a 40-year history of continuous improvement to refine the program based on cooperation and collaboration between state and federal regulators and Nevada's mining industry.

Current federal and state environmental regulations require mines to be designed, built, operated, and closed using effective environmental safeguards that provide comprehensive protection for all environmental resources and minimize the potential for environmental problems to develop during mining and after mining is completed. In order to comply with these regulations, mines use state-of-the-art environmental protection technologies including liners, water treatment facilities, air emission control equipment, and environmental monitoring systems. Mine operators are required to routinely monitor the performance of these systems to verify they are functioning properly, the mine is complying with its permit requirements, and environmental protection is ensured.

In striking contrast to old mining practices, modern U.S. mines carefully manage mine wastes and use liners and covers to isolate these materials from the environment. Whereas waste rocks and tailings at old mines were typically deposited directly on the ground or into streams and rivers, tailings and waste rock storage facilities at modern mines are designed to be stable and minimize seepage and interaction of the mine wastes with surface water and groundwater resources.

The powerful combination of comprehensive and effective environmental regulations and financial assurance requirements is what led the EPA to conclude in 2018 that the environmental regulations and financial assurance requirements for mining fully protect the environment and that a new EPA program would be duplicative and unnecessary. EPA based its decision on a detailed analysis of the scope and effectiveness of federal and state environmental protection and financial assurance rules for hardrock mining:

> "EPA has analyzed the need for financial responsibility based on risk of taxpayer funded cleanups at hardrock mining facilities operating under modern management practices and modern environmental regulations . . . [T]he degree and duration of risk associated with the modern production, transportation, treatment, storage or disposal of hazardous substances by the hardrock mining industry does not present a level of risk of taxpayer funded response actions that warrant imposition of [additional EPA] financial responsibility requirements for this sector." [17]

EPA's decision distinguishes between problematic past mining practices that are no longer lawful and modern practices, stating that legacy contamination at sites operated before the development of modern environmental regulations are not relevant in assessing the potential for environmental risks at existing and future mines. EPA's rulemaking explains that it is inappropriate to point to environmental problems at historical, pre-regulation facilities and assert that modern, heavily regulated mines pose similar risks—because they do not:

> ". . . the primary determinant of risk is how current operations at the mine are conducted, including the current regulatory regime under which they operate . . . EPA has determined that modern regulation of hardrock mining facilities . . . reduces the risk of federally financed response actions to a low level such that no additional financial responsibility requirements for this industry are appropriate." [18]

EPA's 2018 final rulemaking has withstood judicial review. In *Idaho Conservation League et al versus Andrew Wheeler and the U.S. Environmental Protection Agency*,[19] the U.S. Court of Appeals for the District of Columbia agreed with EPA's findings and upheld the agency's decision that a new financial assurance program

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[16] https://pubs.nbmg.unr.edu/The-NV-mineral-industry-2020-p/mi2020.htm.

[17] U.S. EPA Financial Responsibility Requirements Under CERCLA Section 108(b) for Classes of Facilities in the Hardrock Mining Industry, Federal Register, Vol. 83, No. 35, February 21, 2018, pp. 7556–7588, at p. 7556. https://www.govinfo.gov/content/pkg/FR-2018-02-21/pdf/2017-26514.pdf.

[18] Federal Register Vol. 83, No. 35, pp. 7564–7565.

[19] USCA Case #18-114, https://www.cadc.uscourts.gov/internet/opinions.nsf/EE3F3054B78C5C228525843C0051989A/$file/18-1141.pdf.

for the hardrock mining industry was unwarranted. In July 2019, the Court denied the Petitioners' request for the Court to vacate EPA's final rulemaking.

D. The Unworkable Provisions in H.R. 7580 Title III are Designed to Curtail Mining on Public Lands

The performance track record of modern, highly regulated mines clearly demonstrates that Title III of H.R. 7580, "Environmental Considerations of Mineral Exploration and Development" is completely unnecessary to ensure that future mines are safe for the environment. The unworkable environmental standards and duplicative permitting process for mineral exploration and operations will guarantee mineral production will decline. Title III imposes a new environmental performance standard that will be impossible for mining projects (or any other public land uses) to meet and creates a complex regulatory review that adds another layer of bureaucracy designed to make mineral projects more difficult to permit and develop. The Title III environmental standards and permitting processes are intended to advance the overarching purpose of H.R. 7580 to reduce mining.

The most troubling aspect of Title III is its proposal to amend the undue and unnecessary degradation (UUD) environmental protection mandate in Section 302(b) of the Federal Land Policy and Management Act of 1976 (FLPMA, 43 U.S.C. §§ 1701 *et seq*) that currently applies to all activities on BLM-administered public lands. H.R. 7580 Section 301 would change this mandate for hardrock mineral projects to "undue degradation" (UD) and prohibit degradation that is necessary in order to mine. Because mining cannot occur without causing some unavoidable changes to the land due to excavating pits, storing mine wastes, and building other facilities, eliminating the concept of necessary impacts from UUD and changing it to UD makes mining impossible if future BLM regulators have the discretionary authority to deem unavoidable and therefore necessary impacts undue. This impossible-to-achieve standard is clearly designed to eliminate future mining on federal lands. Section 301 of H.R. 7580 makes similar changes to the current environmental performance standard for mineral activities on National Forest System lands.

Changing the FLPMA 302(b) standard from UUD to UD for hardrock mining projects would create a different environmental performance standard for hardrock mining than all other multiple use activities on public lands. Recognizing that all human activities create impacts, some of which are unavoidable, the FLPMA 302(b) UUD standard accommodates this reality while giving BLM the authority to prohibit impacts that go beyond what is necessary and are therefore excessive, unnecessary, and undue. H.R. 7580 Section 301 eliminates this practicality for hardrock minerals and potentially sets a precedent that could be applied in the future to other multiple uses of public lands. Changing UUD to UD sets the multiple use principle that is the core of FLPMA's management directive for public lands on a dangerous course toward zero-impact management of the Nation's public lands.

The Title III permitting processes in H.R. 7580 replace the comprehensive and effective BLM, USFS, and state regulatory requirements and permitting processes that currently govern mineral exploration and development with the unworkable prospecting permits and mineral leases discussed in Section I for hardrock mineral exploration and development on acquired lands. The unsuccessful 75-year old hardrock minerals permitting and leasing system for hardrock minerals on acquired lands is a completely impractical template for hardrock minerals exploration and development. The fact there are only seven operating mines on acquired lands that pay federal royalties clearly demonstrates this system is unsuitable for discovering and producing hardrock minerals.

However, if the objective of a minerals leasing program is to discourage and prevent mineral activities on federal lands, the hardrock minerals leasing program on acquired lands will accomplish this goal. Because the purpose of H.R. 7580 is to curtail hardrock mining on public domain lands, it is not surprising that this bill seeks to replicate the many barriers to mineral exploration, discovery, and development in the hardrock minerals program for acquired lands and apply them to western public domain lands currently governed by the Mining Law.

III. RFI Question 3: Hardrock Production Royalty Program

> "If the U.S. were to place royalties on hardrock minerals produced from public domain lands, what factors should be considered and what structures would best protect the interests of the taxpayer while responsibly incentivizing production? In addition, if royalties were collected, how should those revenues be allocated?"

A. Congress Does Not Have the Necessary Data to Make Informed Decisions about a Royalty

Congress does not have correct information about the size of the hardrock mining industry or the level of minerals production to know whether there is sufficient hardrock mining on lands subject to the Mining Law to warrant adding a federal hardrock royalty to the Mining Law or to predict revenues from a future royalty program. The information the GAO has recently provided to Congress is inaccurate because the GAO misinterpreted data that the BLM and USFS provided on the number of Plans of Operation. The GAO's May 2020 report to Chairman Grijalva[20] incorrectly states there are 728 hardrock mining operations. The report should have said there are 728 hardrock *mineral* Plans of Operations, with most Plans being for mineral exploration—not for mining. Relying on this incorrect GAO report, Congress likely believes the U.S. mining industry is much larger than it really is.

Knowing the number of active locatable mineral mines on lands subject to the Mining Law is a critical piece of information that lawmakers must have in order to make informed decisions about whether to enact the major changes proposed in H.R. 7580 to overhaul this law. Unfortunately, the information that BLM, USFS, and GAO have provided is insufficient to assess mineral production and the number of active metal mines operating under the Mining Law nationwide.

Fortunately, the geological surveys and taxation departments in the western mining states typically maintain accurate information about the number of operating mines in their state and the level of production from each mine that is subject to state taxes and/or royalties. This state data should be used to inform the Mining Law dialogue.

For example, the Nevada Bureau of Mines and Geology (NBMG), which is the State's geological survey tasked with researching Nevada mineral deposits, seismic hazards, flood zones, and landslide dangers, compiles detailed information about mining in Nevada. NBMG's data show there were only 30 operating metal mines in Nevada in 2020,[21] despite the fact that Nevada was the country's largest mining state in 2020.[22] The Nevada Department of Taxation's annual Net Proceeds of Minerals (NPOM) Bulletin is another source of useful information about Nevada mineral production. The 2020–2021 NPOM Bulletin lists 30 mineral producers/NPOM taxpayers. Twenty-nine represent gold and silver mines; the other mine produces copper. The Nevada Department of Taxation collected roughly $189 million in NPOM taxes from these producers during calendar year 2020. According to the Nevada Division of Minerals (NDOM), roughly 52 percent of the gold produced in Nevada during 2021 came from mines located on public lands subject to the Mining Law; the rest of the gold was produced from mines on private lands.[23]

As shown in Table 2, Nevada is by far the largest public lands mining state with over half of the country's active mining claims and nearly half of the Plans of Operation submitted and reviewed in FY 2020. If the ten other western Mining Law states had a combined total of another 30 active mining operations on public lands, there might be on the order of 60 operating mines subject to the Mining Law nationwide. This is a sharp contrast to the 728 mining operations misidentified in the May 2020 GAO report discussed above. Lawmakers should consider whether it makes sense to establish and administer a federal royalty program for such a limited number of mining operations.

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[20] May 2020 GAO Report, op.cit.

[21] https://pubs.nbmg.unr.edu/The-NV-mineral-industry-2020-p/mi2020.htm.

[22] U.S. Geological Survey, 2021, Mineral commodity summaries 2021: U.S. Geological Survey, 200 p., see Table 3 and Figure 4, which show Nevada as the largest mining state, https://doi.org/10.3133/mcs2021.

[23] https://minerals.nv.gov/uploadedFiles/mineralsnvgov/content/home/features/RP/RP_GSN_20220502_NDOM%20Mike%20Visher.pdf, Slide 7.

Table 2
FY 2019[24] Active Mining Claims, Plans of Operation Reviewed* and Acres of the Federal Mineral Estate[25]

State	Active Mining Claims	Plans of Operation Reviewed *	Federal Mineral Estates (Millions of Acres)
Alaska	6,229	8	218.6
Arizona	44,605	3	33.9
California	17,667	3	50.9
Colorado	9,912	3	29.6
Idaho	23,574	7	37.0
Montana	18,282	1	39.4
Nevada	200,652	40	60.3
New Mexico	9,268	1	35.9
Oregon	9,319	5	33.9
Utah	21,185	3	54.3
Wyoming	29,899	13	41.1
Totals	**390,595**	**87**	**634.9**

*The Plans of Operation numbers include Plans for both mineral exploration and mining projects. Most of these Plans of Operation are for exploration projects.

The Nevada mining statistics clearly show that the outcome of the debate about changing the Mining Law will have the biggest impact in Nevada, the state where most of the mining on public lands occurs.

The size of mining's footprint on public lands subject to the Mining Law is another statistic that lawmakers should consider when assessing if the Mining Law should be amended to include different environmental and reclamation requirements. The GAO's May 2020 report shows the BLM and USFS have authorized a total of 317,783 acres of mineral-related surface disturbance for exploration and mining throughout the 11 western Mining Law states, which is a miniscule 0.05 percent of the 635 million acres (Table 2) of the federal mineral estate subject to the Mining Law.[26]

The limited number of mines and the small footprint of mining activities signals the Mining Law debate is about a minor use of the Nation's public lands. The small amount of public lands being used nationwide under the Mining Law coupled with the dwindling mineral production statistics described below should establish the contours of future legislative debates about changing this law—especially in light of the urgent and growing demand for critical minerals for the clean energy revolution. Finding ways to reverse this decline by increasing mineral exploration and production should be the focus and purpose of any future legislation to amend the Mining Law. H.R. 7580 will do just the opposite; it will discourage mineral exploration and mining.

B. The U.S. Hardrock Mining Industry is Declining

For the past 40 years, the amount of mineral production has steadily decreased. As discussed above, Nevada, the largest public lands mining state, has only 30 operating metals mines. Nevada's gold production has dropped from a high of about 9 million ounces in 1998 to less than 5 million ounces in 2020[27] as shown in Figure 1.

The U.S. Center for Disease Control and Prevention (CDC) compiles information on the number of U.S. metal mines based on mine employment data from the Mine Safety and Health Administration (MSHA) from mines at all mine-life stages. The CDC's data thus include many mines that are no longer producing minerals but still employ caretakers and other personnel. The CDC data that are shown in Figures 2 and 3 document a precipitous decline in mining since 1983; they do not paint a picture of a thriving industry.

[24] https://www.blm.gov/sites/blm.gov/files/PublicLandStatistics2019.pdf, Tables 3-22 and 3-23.
[25] https://www.blm.gov/sites/blm.gov/files/PublicLandStatistics2019.pdf, Table 1-3.
[26] The actual surface disturbance associated with mineral exploration and mining is less than the acres of authorized surface disturbance in these Plans of Operations. Mineral activities typically occur on only a portion of the authorized surface disturbance acres because the entire Plan of Operations project area is not mineralized.
[27] NBMG, op. cit.

The Mining Law debate should focus on reversing this downward trend and developing policies that encourage mineral exploration and development of more mines that can generate future royalty payments. The 30-year controversy over a gross versus net royalty is at this point a distraction. Congress must look to the future to increase mineral production to support a future hardrock royalty program. The documented decline in the U.S. mining industry also raises questions about whether Congress should spend taxpayer resources to enact and administer a federal royalty program for a shrinking industry.

Figure 1: Gold Production is Declining in Nevada[28]

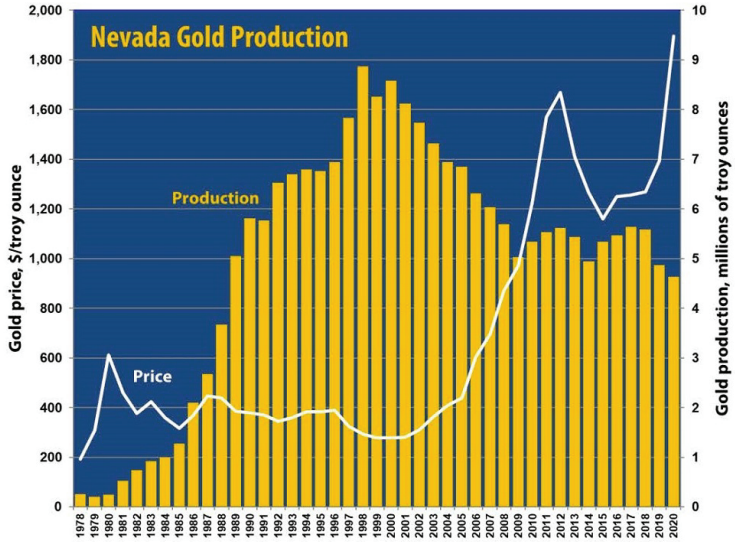
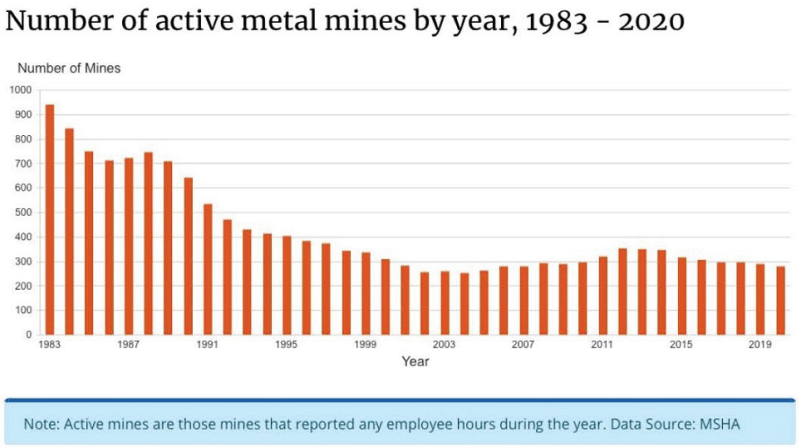
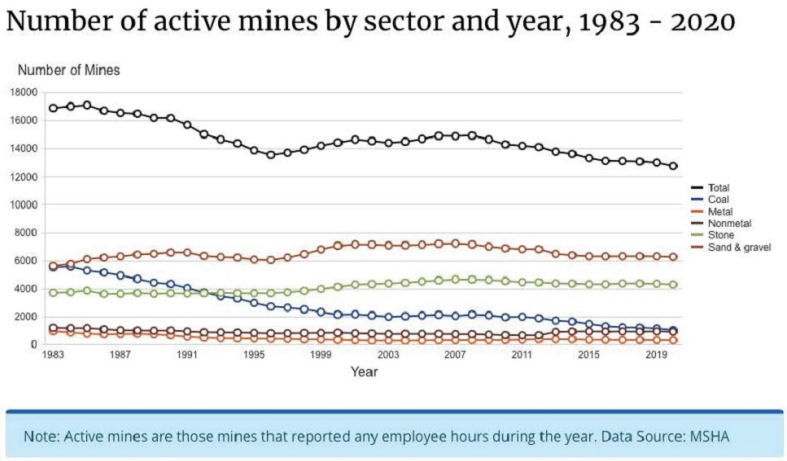


Figure 2. CDC Data Show a Significant Decline in U.S. Metal Mining Since 1983



[28] NV Bureau of Mines & Geology, The Nevada Mineral Industry 2020, Special Publication MI-2020.

Figure 3. CDC Data Show that U.S. Metal Mining Is Not a Growing Industry[29]



C. Why the Oil and Gas Royalty Program will not Work for Hardrock Mining

H.R. 7580 proposes a royalty of not less than 12.5% of the gross value of the minerals or mineral products derived from the lease. For producing mines that are forced to convert to a lease, the proposed legislation would charge a minimum gross royalty of 8%. For many years, the mining industry has presented testimonies in hearings before House and Senate committees and subcommittees explaining why a gross royalty structure bootstrapped from the oil and gas royalty program, like the royalty proposed in H.R. 7580, is unworkable for hardrock minerals and will lead to significantly less mining on federal land. (See, for example Exhibits II and III.) These testimonies demonstrate that using the coal, oil, and gas royalty programs as a template for a hardrock royalty is ill-conceived and impractical due to the substantially different geologic characteristics of oil, gas, and coal compared to hardrock minerals.

As discussed in Section 1, oil, gas, and coal are more abundant than hardrock mineral deposits, making these energy minerals easier to find than hardrock minerals. Consequently, discovering and developing a hardrock mineral deposit takes much longer and requires a much larger investment compared to oil and gas.

Unlike oil, gas, and coal operations, the raw minerals produced at most hardrock mines are not salable; they must undergo costly processing steps to produce a product that can be sold. Although federal royalties for oil, gas, and coal are called gross royalties, this is a misnomer. The federal oil, gas, and coal royalties are in reality comparable to a net royalty because they are based on the value of the marketable products from an oil and gas well or a coal mine. (See Exhibit III, at 5).

A workable federal hardrock minerals royalty must be assessed at the same point in the value-added steps that produce the first marketable product from the mine. Therefore, the costs the mine operator must incur to produce a salable product from raw, unrefined minerals should be deducted from the royalty base on which a federal royalty is calculated.

D. Net versus Gross Royalties

Royalty payments to the United States should be based on the value of the federal government's ownership interest in the minerals, which is limited to the raw minerals in the ground, and allow the mine operator to deduct the costs associated with the value-added mineral processing steps that are necessary to produce a salable mineral product. The H.R. 7580 royalty is unfair and confiscatory because it is calculated on the gross value of mineral products that includes the value added

[29] The decline in mineral production and the number of mines shown in Figures 1–3 is one of the reasons the Nation's reliance on foreign minerals has steadily increased over the last several decades.

by the operator to process, refine, and produce a salable mineral product from the raw minerals removed during mining.

A hardrock royalty must not be paid on the hundreds of millions of dollars of value added to the raw minerals that mining companies must routinely spend to find, produce, process, and sell the mineral products. Although under the Mining Law, the U.S. makes land available for mineral exploration, it does not contribute anything to the enormous costs and efforts required to find, produce, and process minerals. Without relying on any federal subsidies, mining companies' investments of private-sector capital is a unique and advantageous aspect of the Mining Law that *already benefits* U.S. taxpayers. Despite the costs and daunting odds against making a discovery of an economic mineral deposit that can be developed into a mine, the Mining Law stimulates private-sector investment that transforms undeveloped federal land into mining operations that create jobs, pay taxes, and provide the minerals the country needs—at absolutely no cost to U.S. taxpayers.

Exploring for minerals and developing a discovery of a valuable mineral deposit into a mine takes a mammoth investment of capital. As described in Mr. Rich Haddock's[30] October 2021 testimony before the Senate Energy and Natural Resources (SENR) Committee (see Exhibit IV), companies made an initial investment of $7.5 billion to develop the mines and processing facilities in Nevada's famous Carlin Gold Trend in Eureka County. The investment to date in the Carlin Complex is $40 billion, with substantial annual investments required to maintain the mining and mineral processing facilities. For example, replacing one of the roasters or autoclaves in the complex would cost at least $1 billion.

The amount of investment and length of time required to discover a mineral deposit are also staggering. Mr. Haddock's testimony states that it has taken Barrick Gold Corporation over twenty years and $459 million to define the Goldrush ore body which is currently in the mine permitting process and therefore still several years away from starting production.

Because commodity price cycles are variable and cyclical, a gross royalty has a very different effect on mining investment compared to a net royalty. Royalties assessed on gross income discourage investment by increasing economic risks. Consequently, projects subject to a gross royalty will require a higher pretax and after-tax rate of return to accommodate the increased risk. In contrast, a net royalty has a smaller effect on the variability of after-tax rates of return and is less of a deterrent to investment. When commodity prices decrease, the rate of return required to justify a mining investment increases more dramatically under a gross royalty than under a net royalty. Because most mine operating costs are relatively fixed, a gross royalty takes a bigger piece out of the mine's reduced income during periods of low commodity prices.

A gross royalty is especially problematic during industry downturns due to low commodity prices because they cause a greater reduction in cash-flow during periods when profits are already low. A gross royalty can functionally reduce the portion of the ore deposit that remains economic to mine. During low commodity price cycles, low-grade ores may become uneconomic to mine and process and become low-grade waste materials that are not processed or not mined at all, which shortens the life of the mine and reduces the total amount of mineral that will be produced from the mine. Gross royalties may thus contribute to premature mine closures with the concomitant loss of jobs; reduced local, state, and federal tax revenues and/or royalty payments; and business losses for the mine's vendors and suppliers.

A net proceeds or net income royalty, in contrast, does not cause mines to operate at a loss because the royalty owed is automatically reduced during periods of low prices, and increases again when prices are higher. A net royalty thus allows mining operations to continue to operate during periods of low commodity prices and also enables maximum recovery of low-grade ore during high commodity prices. Because mineral demand is cyclical and commodity prices fluctuate, a net royalty provides the best incentive to explore for minerals on federal lands in spite of variable mineral demand and commodity price cycles. A net royalty thus minimizes volatility in the mining industry which helps keep the domestic industry viable and the nation's mineral supply secure.

Testimony from Ms. Katie Sweeney[31] at the October 2021 SENR hearing discusses another important aspect of assessing a federal royalty on hardrock mineral production. (See Exhibit V.) In determining an appropriate royalty structure and rate, Congress should consider the total government "take," defined as the aggregate of federal, state, and local royalties, taxes, and fees, and compare that take to what mineral producers pay in other countries. In order to reduce the

[30] Mr. Haddock is General Counsel of Barrick Gold Corporation.

[31] Executive Vice President and General Counsel of the National Mining Association (NMA).

Nation's reliance on foreign minerals and strengthen our mineral supply chains, a future federal hardrock royalty must not make the total government take so high that U.S. mines become uncompetitive compared to mines in other countries.

As explained in Ms. Sweeney's testimony, the existing government take affecting U.S. hardrock mining operations is close to 40 percent for most NMA members, which is close to the top range for other cost-competitive mining countries. The 8 percent gross royalty on new mining operations and the 4 percent on existing operations that were being considered last fall in the Budget Reconciliation Bill would have increased the total government take to over 50 percent and would have made the U.S. an uncompetitive country for mineral investment and mining. The higher (8 to 12.5 percent) royalty rates proposed in H.R. 7580 would increase the total government take for U.S. mines making them even less competitive.

Mr. Haddock's testimony compares the total government take in the U.S. compared to Australia or Canada, our two most important mining allies. Currently, the three countries have about the same total government take ranging from 38 to 39 percent. Adding a 2 percent *net* royalty to hardrock mineral production on federal land would increase the total take on U.S. hardrock mining operations to roughly 41 percent. At this rate, U.S. mines would not be cost competitive with mines in Australia or Canada. Obviously, imposing the 8 to 12.5 percent royalties in H.R. 7580 would make U.S. mines even less competitive with mines in Australia and Canada—especially in light of the far more reasonable two- to three-year permitting timeframes in these countries.

E. Takings Implications of a Retroactive Royalty

Assessing a retroactive royalty on existing claims, as proposed in H.R. 7580, runs the risk of exposing the federal government to takings claims. If a mineral production royalty or additional fees are enacted in the future, they should only apply to post-enactment mining claims to minimize the potential for takings claims against the federal government. Exhibit VI is an American Exploration & Mining Association July 2021 white paper entitled "Mining Law Fifth Amendment Takings Analysis" that discusses the protected rights and interests held by U.S. citizens who have invested their time, effort, and capital to explore for, identify, and develop hardrock minerals under the Mining Law. This white paper describes how these rights and interests are protected by the Fifth Amendment of the U.S. Constitution. It also presents the history of past Congressional amendments and attempted changes to the General Mining Law which explicitly preserved claim owners' property rights and successfully avoided exposing taxpayers to unconstitutional takings claims.

F. Creating a Royalty Program that Incentivizes Production

> ". . . What factors should be considered and what structures would be best [t] responsibly incentivize production?"

The Administration's RFI question about how to charge a royalty and at the same time incentivize production is especially important in light of the skyrocketing demand for the minerals needed to build clean and renewable energy systems, essential infrastructure, and President Biden's directives to strengthen U.S. mineral supply chains by increasing domestic mineral production. Policies to incentivize hardrock mineral production must consider more than just the royalty issue and must also focus on security of land tenure, permit streamlining, and creating a positive business climate that can attract private-sector investment in the Nation's mineral resources on public lands.

The following are the Women's Mining Coalition's preliminary suggestions for a fair and affordable royalty and other Mining Law elements designed to incentivize and increase mineral production on public lands subject to the Mining Law:

- Improve the business investment climate by ending the uncertainty engendered by the 30 year-long debate over mining royalties and other elements of the Mining Law that has significantly chilled investment in the U.S. mining industry and diminished discovery of mineral deposits that can be developed into profitable mines.
- Enact a prospective *net* royalty at a rate that keeps U.S. mines cost competitive with mines in Canada, Australia, and other countries. As discussed above, it appears that U.S. mines cannot support a net royalty that exceeds about 2 percent and remain cost competitive.

- Eliminate all consideration of a retrospective royalty that would be applied to claims in existence on the date of enactment, which would expose the federal government to Fifth amendment takings claims.
- Maintain self-initiation and the existing mining claims land tenure systems and do not replicate the unworkable and failed 75-year old federal hardrock leasing system applicable to acquired lands on public domain lands.
- Keep lands open to mineral exploration and development.
- Recognize that the significant differences in the geology and business profiles for oil, gas, and coal, compared to hardrock minerals make the oil, gas, and coal royalty programs inappropriate and infeasible for hardrock minerals. Stop trying to force-fit the oil, gas, and coal royalty structure on to hardrock minerals.
- Allow claims maintenance fees and other fees to be credited against future royalty payments.
- Consider flow-through investment arrangements similar to those in some Canadian provinces and other incentives to stimulate mineral investment.

IV. RFI Question 4: Financial Assurance

> "What changes to financial assurance requirements for mining should be considered?"

The short answer to this question is there are no changes required to the BLM's or the USFS' financial assurance/reclamation bonding requirements because the current requirements provide regulators with funds to reclaim a mine in the event the operator goes bankrupt or fails to properly reclaim a mine site. After conducting an in-depth evaluation of the financial assurance requirements for hardrock exploration and mining, the EPA concluded in 2018 that the existing programs under the federal land management agencies' surface management regulations, (e.g., BLM's 43 CFR Part 3809 regulations and the USFS' 36 CFR Subpart 228A regulations) provide comprehensive environmental protection and financial assurance:

> "EPA has determined that modern regulation of hardrock mining facilities . . . reduces the risk of federally financed response actions to a low level such that no additional financial responsibility requirements for this industry are appropriate."[32]

The environmental problems at some legacy mines are attributable to bankrupt operators who did not reclaim their mines. Today's financial assurance requirements for mines completely eliminate a bankrupt mine from creating future environmental problems because state and federal regulators (e.g., BLM and USFS) have the necessary funds to reclaim a mine if the operator goes bankrupt or for other reasons fails to reclaim the site. As EPA found in its 2018 CERCLA 108(b) final rulemaking, problems due to operator bankruptcies are a relic of unregulated and, in some cases, inadequately bonded mines in the past.

As explained in EPA's final rulemaking, federal and state regulators currently have adequate reclamation bond funds if a mine operator goes bankrupt. The amount of required financial assurance is based on what it would cost BLM, USFS, or the state agency to hire third-party contractors to reclaim the site in accordance with the site's approved closure and reclamation plans. Each mine's closure and reclamation plan and financial assurance requirement are based on a detailed and site-specific evaluation of the closure, reclamation, and post-cost closure care and maintenance costs for that site. The sufficiency of reclamation bonds must be reviewed and adjusted on a regular basis to make sure the required financial assurance amount keeps pace with inflation and on-the-ground conditions.

[32] Federal Register Vol. 83, No. 35, pp. 7564–7565.

EPA's final rulemaking determined that the Standardized Reclamation Cost Estimator (SRCE) software developed in Nevada provides a robust methodology for calculating the cost for the BLM, USFS, or a state agency to step in and reclaim a mine.[33] Because a SRCE-calculated Reclamation Cost Estimate assumes that the reclamation work is being conducted by a federal or state governmental agency, it generates very comprehensive financial assurance requirements that include the following:

- Third-party contractor costs based on Davis-Bacon prevailing wage rates established by the U.S. Department of Labor for the area in which the mine is located;
- Indirect agency costs including a surcharge of approximately 40 percent on top of the direct costs to cover the agency's costs to manage the third-party contractors' reclamation work;
- Costs to manage the process fluid inventory (i.e., fluids in ponds and tailings storage facilities) that must be dealt with before a site can be closed and reclaimed;
- Costs to perform regular monitoring, sampling, and inspection throughout the mine closure and reclamation phases of the mine life, which may last several decades; and
- Long-term financial assurance requirements if site-specific conditions require long-term operation of water treatment systems, other environmental controls, or site monitoring. At sites where long-term financial assurance mechanisms are needed, they are designed to provide the funding necessary for perpetual care and maintenance of the reclaimed mine site.

Based on these assumptions, EPA found that reclamation bond amounts calculated with a SRCE or a comparably robust reclamation cost estimating protocol eliminate the concern that taxpayers will be responsible for paying reclamation costs.

V. RFI Question 5: AML Reclamation

> "How might the U.S. best support reclamation of existing AML sites including the development of meaningful good Samaritan proposals as well as remining and reprocessing of mine tailings and waste, where feasible?"

Developing a funding mechanism to pay for reclaiming Abandoned Mine Lands (AMLs) that were created before the enactment of laws and regulations to protect the environment is one of the drivers of the Mining Law debate. Many of the Mining Law bills that Congress has considered for the past 30 years have included an AML reclamation program to be funded by hardrock royalties, fees, and taxes.

However, amending the Mining Law is not the only way to create an AML reclamation fund. Recognizing the importance of developing a funding source to reclaim hardrock AMLs sooner rather than later, the Women's Mining Coalition suggests the annual Mining Law holding fees and service fees paid by mining claim holders in excess of the amount the BLM requires to administer its Mining Law Program could be used for AML reclamation. These excess funds currently vanish into the ether of the Treasury's general fund, with no directive to use them for public land management.

BLM's 2020 Public Lands Statistics Report shows BLM collected $69,420,974 in Mining Law holding fees in Fiscal Year 2020 and states Congress has appropriated $40,196,000 for Mining Law Administration program operations, including the cost to administer the mining claim fee program. Collections in excess of $40,196,000 are deposited to the general fund.[34]

Assuming these statistics are a reasonable estimate of future Mining Law holding fees and Mining Law program administrative costs, approximately $29 million per year could be earmarked in future appropriations measures for AML reclamation without amending the Mining Law.

Abolishing mining claims and substituting a leasing system, as proposed in H.R. 7580, would obviously eliminate the possibility of using a portion of future claims maintenance fees to fund AML reclamation. A future Mining Law bill that retains the mining claims system but includes the other onerous provisions in H.R. 7580 would reduce investment and the number of claims and leave less funding available for AML cleanups.

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[33] Federal Register Vol. 83, No. 35, p. 7573.

[34] https://www.blm.gov/sites/blm.gov/files/PublicLandStatistics2019.pdf, Table 3-32, Page 158.

For nearly three decades, the mining industry has advocated for bi-partisan legislation to enable AML cleanup consisting of two key elements: 1) creating a hardrock AML fund using proceeds from a workable and prospective net royalty assessed on mineral production from future mining claims; and 2) addressing the Clean Water Act and Superfund liability issues that are a serious barrier to third-party Good Samaritan AML cleanup efforts.

The Women's Mining Coalition thus strongly supports S. 3571, "The Good Samaritan Remediation of Abandoned Hardrock Mines Act of 2022" that Senators Heinrich and Risch introduced earlier this year in the SENR Committee. The 15 Abandoned Mine Land (AML) remediation pilot projects authorized in this bipartisan bill will begin to pave the way toward addressing the liability issues at AML sites that do not have complex water quality issues. We strongly urge this subcommittee to consider and support a similar bill.

Virtually everyone who has evaluated AML policy issues has recognized and documented the legal impediments to voluntary cleanup of AMLs with complex surface water and groundwater contamination issues due to contact with mine wastes and/or seepage from old underground workings. Policymakers and independent researchers like the NRC/NAS and the Western Governors' Association have urged Congress to eliminate the liability exposure that thwarts parties that have no previous involvement with a mine from undertaking voluntary reclamation and remediation activities.

The Biden Administration's 100-day supply chain report directs evaluating reprocessing mine wastes as a viable source of critical minerals. Mine wastes at previously mined and now abandoned mines should be included in this evaluation. To stimulate public- and private-sector reprocessing and reclamation of AML sites containing critical mineral resources, Congress should exempt Good Samaritan[35] remining and reprocessing proposals at AML sites with critical minerals from Clean Water Act and CERCLA liability, if the Good Samaritan can demonstrate the site will be remined and/or reprocessed in a responsible manner in compliance with permitting requirements and applicable regulatory standards.

Perpetua Resources' mining and remediation proposal for the Stibnite Mine in central Idaho is a pioneering example of a private-sector proposal to remediate an AML site to recover gold and the critical mineral, antimony. In World War II, when Japan invaded China and cutoff antimony supplies needed to build war munitions, the U.S. federal government started producing antimony and tungsten from an emergency mining operation at the Stibnite Mine. This wartime mining supplied the U.S. with the raw materials needed to fight the war and was credited with saving one million American soldiers' lives and shortening the war by at least one year.

But this accomplishment came with a serious environmental cost. The urgent need for minerals eclipsed any concerns about the environment and created an environmental mess that continues to impact water quality, wildlife habitat, local residents, and Native American ancestral lands. Although modern state and federal environmental laws and regulations would prevent this from happening today, there is no easy solution to cleaning up the complex and costly historical environmental problems.

Because significant gold and antimony reserves remain at Stibnite, Perpetua Resources is proposing to spend $1 billion of private-sector capital to redevelop Stibnite into a modern, environmentally sound mining operation that will remediate the World War II-vintage environmental impacts by reprocessing some of the old mine wastes and building modern facilities that include environmental safeguards. Perpetua Resources has spent years permitting this project, which is in its sixth year of the NEPA analysis process.

Congress could expedite critical minerals reprocessing/AML remediation projects by directing the federal land management agencies to expedite the permitting process for projects proposing to remediate AML sites by reprocessing old mine wastes to recover critical minerals. Although Perpetua Resources' mine and restoration plan does not rely on Good Samaritan liability relief, granting some measure of relief based on a site-by-site evaluation could encourage remediation of other sites.

Perpetua Resources' leadership at the Stibnite Mine could be a model applicable to other AML sites. Expediting the permitting process for this type of AML mine remediation project and evaluating the appropriateness of some liability relief on a project-by-project basis could stimulate other companies' involvement with other AML mine restoration projects. Obtaining critical minerals from existing mined materials would accelerate acquiring critical minerals from domestic sources

[35] As used here, "Good Samaritan" refers to a public- or private-sector entity who had no prior involvement with or ownership interest in the AML site.

because recovering minerals from existing mine wastes could probably be accomplished faster than exploring for, discovering, and developing new mineral deposits. Secondly, it would result in meaningful source reduction of the metals that may be leaching from old mine wastes and impacting surface water and groundwater quality at AML sites. Thus, a federal program to reprocess AML sites that contain critical minerals would have many public benefits.

The 10-year time limit in H.R. 7580 Section 304 for water treatment facilities is an ill-considered impediment to both new project development and AML restoration. Water treatment facilities built to support a new mining project can become a valuable long-term asset that may facilitate a wide range of post-mining redevelopment projects that can use the treatment plant infrastructure for other industrial or municipal purposes that will benefit local communities long after mining is completed.

The prohibition in Section 304 of H.R. 7580 against water treatment projects lasting longer than 10 years is especially problematic in the context of AML remediation. Some AML projects are likely to require long-term water quality treatment to successfully improve and maintain water quality. The investments made in water treatment facilities create valuable infrastructure. Financial assurance requirements for both new projects and AML restoration projects requiring long-term water treatment facilities can (and already do) include long-term funding mechanism to operate and maintain these facilities.

VI. RFI Question 6: Successful Mine Reclamation

> "What would a successful mine reclamation program include? Are there existing programs that the U.S. should adopt?"

As described above in Section IV, Congress should rely on EPA's 2018 conclusions regarding the scope and success of existing reclamation programs under the BLM's and the USFS' surface management regulations. Both the BLM's 43 CFR Subpart 3809 and the USFS' 36 CFR Subpart A regulations include comprehensive mine reclamation and financial assurance requirements that ensure that all mineral exploration projects and mining operations will be completely reclaimed.

The Women's Mining Coalition suggests that Congress consider the MOU included as Exhibit VII between BLM, the USFS, and NDEP/BMRR as an example and possible template for how a state regulatory agency coordinates with the federal land management agencies to provide comprehensive regulation, reclamation, and financial assurance for hardrock mineral projects on federal lands.

Section II of the Nevada MOU lists the following state and federal statutes and regulations that are the foundation of the MOU:

- The General Mining Law of 1872 as amended;
- The Organic Administration Act of 1897;
- Title 36 Code of Federal Regulations, Part 228, Subpart A as amended;
- Title 30 U.S.C. Section 612;
- Title 36 Code of Federal Regulations, Part 219, as amended
- Title 36 Code of Federal Regulations, Part 261, as amended
- Sections 102(a)(12), 302, 303, and 603 of The Federal Land Policy and Management Act of 1976
- Title 43 U.S.C. Sections 1201 and 1457
- Title 43 Code of Federal Regulations, Subparts 3802, 3809, and 3715

It's important to note that this successful reclamation program is accomplished under the existing statutory and regulatory framework, clearly demonstrating the overhaul of the Mining Law proposed in H.R. 7580 is completely unnecessary and unwarranted.

Title III of H.R. 7580 essentially guts the laws and regulations listed above. These draconian changes are not designed to improve mining on federal lands. To the contrary, H.R. 7580 has just one purpose—to substantially reduce mining on federal lands. This ill-considered bill would increase the Nation's reliance on mineral imports, weaken our mineral supply chains, and jeopardize national security by putting Russia, China, and other adversaries in charge of our mineral future.

VII. RFI Question 7: Tribal and Community Engagement

> "How can Tribes and local communities be effectively engaged early in the process to ensure that they have meaningful input into the development of mine proposals?"

Numerous mining companies are making a concerted effort to contact tribal communities near their operating or proposed mines to try to establish meaningful dialogues about how mine development can be respectful of tribes' ancestral lands and at the same time find ways to develop long-term, collaborative and mutually beneficial working relationships. Some larger mining companies have established policies for working with Indigenous communities based on their worldwide mining operations. These policies are premised on companies' respect for the deep and special relationships that Indigenous people have with their ancestral lands and the companies' sincere desire to build a better awareness and sensitivity to tribes' concerns about how mining impacts their ancestral lands.

The success of the communication and relationship building that are the objectives of these corporate outreach efforts depends significantly on the willingness of tribal communities to engage with companies in a meaningful way. When viewed with an open-minded perspective, a company's efforts to engage a tribe can evolve into significant opportunities for tribal communities.

Generally speaking, modern mining companies are committed to working collaboratively with community and tribal stakeholders to make a proposed mine the best possible project for the area's environment and people. Stakeholder engagement dialogues between mining companies, communities, and tribes are already achieving productive and collaborative outcomes. There is no need for the bureaucratic and cumbersome government-to-government consultation provisions in H.R. 7580 Title II that duplicate many of the requirements under the National Historic Preservation Act (NHPA) and NEPA, and would serve very little purpose except to slow down the permitting process.

The Women's Mining Coalition understands that many tribes may be frustrated with the government-to-government consultation process pursuant to Section 106 of the NHPA that federal agencies must conduct during development of a NEPA document. Hopefully tribal communities will respond to the IWG's RFI with suggestions on how to obtain more meaningful results from the Section 106 consultation process. Based on our experience with the mine permitting process and NEPA, starting the consultation process earlier at the project planning and development stage might elicit a better response from tribal participants. Starting consultation earlier would give agencies, companies and tribes opportunities to share information about a proposed project, learn about the tribes' values, concerns, and goals for their future, and look for common ground.

The company-driven stakeholder engagement and outreach efforts underway at mines that are currently in the permitting process and at operating mines clearly demonstrate the mining industry's commitment to work with a broad array of stakeholders to listen to their suggestions for and concerns about a proposed project. There are many examples of how working collaboratively with stakeholders has resulted in important improvements and refinements to a project proponent's proposed mining Plan of Operations to reduce project impacts, preserve public access, enhance environmental outcomes, and identify ways to benefit local communities.

Stakeholder engagement lasts for the duration of the permitting process and continues once a mine is operating. It is not unusual for mining companies and community and tribal leaders to establish formal advisory groups that meet on a regular basis to focus on addressing community concerns about a proposed or operating project and identify mutually beneficial opportunities for sustainable development measures to repurpose project infrastructure (e.g., roads, transmission lines, pipelines, water treatment facilities, etc.) to provide jobs and tax revenues to local communities after mining is completed. A commitment from all parties to frequent collaboration and communication often solves problems and develops initiatives that bring long-term benefits to communities and tribes.

These stakeholder engagement efforts are a business standard for today's mining companies and executives who realize building and operating a hardrock mine today is about more than creating shareholder value by excavating rocks and producing metals. It involves an equally important focus on creating benefits for the communities where mines are operated, which requires a strong commitment to Environmental, Social, and Governance (ESG) values. ESG accountability starts with C-Suite corporate executives and directors. Chief Executive Officers and Boards of Directors take responsibility for developing, implementing, and overseeing ESG programs and corporate social responsibility initiatives.

Shareholder ESG demands and expectations partially drive companies' focus on ESG programs. But the commitment to ESG goes far beyond responding to shareholders and extends to the needs of the communities where a mine's workforce lives. Mines must be able to attract a qualified workforce to live in nearby communities that are safe and welcoming places to raise a family and that offer good schools,

medical and emergency services, adequate shopping, recreational opportunities, and other public services and amenities.

Because many metal mines are located in rural and remote areas with limited job opportunities and public services, a mining operation can become a community's and even a region's best opportunity to improve the quality of life for everyone. Many mining companies make substantial financial investments in their local communities to build or improve schools, upgrade roads and Internet services, subsidize medical services, offer vocational training to prospective employees, and provide scholarships and other educational opportunities for their workforces. These investments represent voluntary donations in addition to the state and local taxes the mines pay.

It must be emphasized that the value of these corporate outreach efforts to area tribes and communities depends largely on the level of stakeholder participation. Ongoing and collaborative dialogues between companies and stakeholders typically produce the best results based on finding synergies between the company, local communities, and the tribes who are an important part of these communities.

Many mining companies make a special effort to engage tribes in early and frequent dialogues with the objective of addressing tribal concerns and finding common ground to work together on programs to benefit tribes. Examples of beneficial outcomes from dialogues with Native American communities include:

- Workforce development initiatives
- Training facilities
- Environmental restoration projects
- Environmental and cultural resources monitoring programs
- Ethnographic and ethnohistory research projects
- Business arrangements and agreements
- Education funding and scholarship programs
- Culture and language preservation programs.

Table 3 lists examples of the many positive outcomes resulting from mining company stakeholder engagement programs with communities and tribes and demonstrates that the consultation requirements proposed in Chairman Grijalva's Mining Law reform principles would create a superfluous process that would delay, duplicate, and complicate the permitting process.

Table 3

Examples of Mining Company - Stakeholder Engagement Results

Partial List of Benefits Resulting From Community and Tribal Engagement
Education:
Scholarships and educational benefits and assistance
Partnerships with K-12 schools, universities, and community colleges
Teacher technical and leadership training
STEM (science, technology, engineering and math) recruitment and educational programs
Support for at-risk students
Inclusive education initiatives to ensure educational equity for women, girls, and people of color
Summer youth employment programs for Native American teens to learn workforce skills
Student internships and job shadowing
Academic assistance to high school students
Employment:
Local and tribal employment commitments
Job and occupational training
Environment:
Conservation easements
Environmental restoration and improvement projects
Company-funded independent community environmental sampling and monitoring programs
Community:
Community Advisory Boards
Good Neighbor Agreements
Community improvement grants
Community foundations
COVID 19 response measures to provide PPE, food assistance, and cash donations
Small business grants and loans to support economic development and diversification
Profit-sharing agreements so to benefit communities during and after mining

The H.R. 7580 consultation process ignores and duplicates the NEPA requirement to carefully and thoroughly evaluate alternatives to a mining company's proposed project in the Environmental Impact Statement (EIS) that federal agencies must prepare for the project. The public plays a pivotal role in evaluating alternatives during the NEPA analysis process by providing comments on a proposed project during scoping for the EIS and public comment periods for the draft and final documents. NEPA also requires evaluating the impacts that the proposed project and project alternatives would have on environmental justice.

It is not uncommon for the NEPA alternatives analysis process to identify different locations for project facilities and operating procedures that could reduce a project's environmental impacts, and to develop measures to address community concerns about preserving public access; reducing traffic, noise, and visual impacts; maintaining dark skies; managing demands on emergency services and schools; selecting access routes to avoid environmentally and culturally sensitive areas; and many other issues identified as important to the public.

Because public involvement is at the heart of the NEPA process, the public is engaged in every step of this process starting with project scoping, which is one opportunity for the public to suggest project alternatives, to reviewing the draft and final EIS documents. This commitment to public involvement guarantees a transparent permitting process that gives the public full access to the environmental baseline studies and other relevant information.

VIII. RFI Questions 8 and 9: Streamlining Permitting

> "How could updates to the Mining Law of 1872, or other relevant statutes, help provide more certainty and timeliness in the permitting process?"
>
> "What improvements can be made to the mine permitting process without reducing opportunities for public input or limiting the comprehensiveness of environmental reviews?"

A. Permitting Delays and NEPA

Permitting hurdles are a substantial contributing factor in the declining gold production in Nevada shown in Figure 1 and the plummeting number of metals mines shown in Figures 2 and 3. Permitting delays are impeding clean energy mineral projects across the country: important Nevada lithium projects are facing litigation and regulatory delays; in Idaho, the proposed Stibnite gold-antimony mine is in its sixth year of permitting and a cobalt mine has taken more than a decade to permit; and the permitting process for a proposed Arizona copper mine, where permitting started in 2013, is undergoing additional scrutiny. Permitting adds investment-killing uncertainties for would-be mine developers and investors and harms communities that must wait years for the jobs, tax revenues, and other socioeconomic benefits mining brings to rural communities.

There is growing concern among elected officials about the protracted permitting process for mineral exploration and development projects. U.S. Energy Secretary, Jennifer Granholm, recently said "it takes forever to get a new permit—how crazy is that?"—and committed to a take a whole-of-government approach to streamlining permitting. Unfortunately, the mineral exploration and mine development permitting processes in H.R. 7580 Title III are a whole-of-government approach that transforms Secretary Granholm's "takes forever, crazy" permitting process into Mission Impossible.

President Biden's March 31, 2022 Memorandum on Presidential Determination Pursuant to Section 303 of the 1950 Defense Production Ac, as amended, seeks to facilitate and expedite domestic production of critical minerals. Unfortunately, these important objectives cannot be accomplished without also streamlining the permitting process.

The NEPA process is the primary reason that permitting takes so long for any type of project requiring a federal permit. There is no such thing as a "shovel-ready" project to construct infrastructure, build new clean energy facilities and transmission lines, or develop a mine due to NEPA. NEPA appeals and litigation create uncertainties that wreak havoc on businesses, and cause massive cost overruns. Project opponents are experts at weaponizing NEPA by using appeals and litigation to challenge agencies' decisions to purposefully create these lengthy and costly delays. Consequently, NEPA has a long history of obstructing new projects and proposals to expand existing projects. For example, the infrastructure construction projects that were part of the 2009 stimulus bill took years to build—if they were ever built at all—due to permitting barriers. In a 2010 New York Times interview, President Obama admitted there's no such thing as shovel-ready projects.

Although NEPA provides important environmental information about a project's impacts and seeks valuable public input, it's a paper tiger that does not directly protect the environment. That protection comes from the Clean Water Act, the Clean Air Act, and other federal environmental laws that require permits with stringent environmental protection standards that make U.S. mines the cleanest and safest in the world.

In considering updates to the Mining Law of 1872, Congress could amend NEPA to establish reasonable timelines and page limits and reduce project opponents' currently unfettered abilities to challenge agency NEPA decisions. By distinguishing between the environmental review and disclosure requirements in NEPA and the environmental protection requirements in the Clean Air Act, Clean Water Act, Endangered Species Act, and other environmental protection laws, Congress could enact streamlining measures to the NEPA process without diminishing any environmental protection measures.

A streamlined NEPA process could retain the existing public review process that provides the public with opportunities to participate in public scoping at the earliest stages of project permitting and then review and comment upon draft and final NEPA documents. The public review timelines for reviewing draft and final documents currently specified in NEPA are reasonable. However, federal agencies should be instructed to limit the use of extensions to established comment periods to mollify project opponents. The most important change Congress could make to the NEPA process would be to reduce the frequency and duration of litigation challenging agencies' NEPA decisions by requiring NEPA litigants to post bonds in order to sue and limit cost recovery of attorneys' fees under the Equal Access to Justice Act.

Another way to streamline the NEPA process would be to make better use of activity-specific and/or region-specific programmatic NEPA documents for exploration drilling or other projects involving a limited range of routine actions such as building temporary exploration roads and drill sites and reclaiming these features when the project is completed. Programmatic NEPA documents could establish Best Management Practices (BMPs) for mineral exploration activities. Projects that adhere to the BMPs could then be evaluated using a Categorical Exclusion or a Determination of NEPA Adequacy. This would save time and agency resources.

Reinstating the 2020 NEPA regulations would also help streamline permitting. The thoughtful changes made in the 2020 NEPA rule reflected decades of experience with the NEPA process. These changes improved the practicality of the NEPA analysis process, the readability of NEPA documents, and facilitated better interagency coordination.

B. Permit Streamlining Measures in the Infrastructure Investment and Jobs Act

In evaluating ways to improve and streamline the permitting process to provide more certainty and timeliness, the IWG does not have to create a permit improvement process out of whole cloth because Congress recently enacted a program to improve the permitting process for critical minerals in Section 40206 of the recently enacted Infrastructure Investment and Jobs Act (also known as President Biden's "Bipartisan Infrastructure Law"). The IWG should recommend the permit streamlining measures in Section 40206 to Congress as a template for updating the Mining Law with a permitting process that would provide more certainty and timeliness. Updating the Mining Law with the permit streamlining provisions in Section 40206 would help alleviate some of the roadblocks currently standing in the way of efficiently developing the country's mineral resources.

The Section 40206 permit streamlining provisions should be applied to: 1) the hardrock minerals subject to the Mining Law (also called "locatable minerals"); 2) the 50 minerals on the USGS 2022 Critical Minerals list: and the host minerals shown on the inner circle on the Wheel of Metals Companionality in Figure 5. As discussed in Section IX, many critical minerals are only economic to produce as by-products and co-products of other minerals (e.g., aluminum, titanium, iron, nickel, copper, zinc, lead, tin, platinum, and gold.)

The Infrastructure Investment and Jobs Act establishes a key principle for securing our mineral future in Section 40206(b)(3): ". . . to the maximum extent practicable, the critical mineral needs of the United States should be satisfied by minerals responsibly produced and recycled in the United States," and correctly finds in Section 40206(b)(4) that the current permitting process is a problem: "the Federal permitting process has been identified as an impediment to mineral production and the mineral security of the United States."

The "Federal Permitting and Review Performance Improvements" in Section 40206(c), direct the Secretaries of the Interior and Agriculture to improve the quality and timeliness of Federal permitting and review processes and to the maximum extent possible require completing the process with maximum efficiency and effectiveness, while supporting vital economic growth by:

(1) establishing and adhering to timelines and schedules for the consideration of, and final decisions regarding, applications, operating plans, leases, licenses, permits, and other use authorizations for critical mineral-related activities on Federal land;

(2) establishing clear, quantifiable, and temporal permitting performance goals and tracking progress against those goals;

(3) engaging in early collaboration among agencies, project sponsors, and affected stakeholders——

(A) to incorporate and address the interests of those parties; and

(B) to minimize delays;

(4) ensuring transparency and accountability by using cost-effective information technology to collect and disseminate information regarding individual projects and agency performance;

(5) engaging in early and active consultation with State, local, and Tribal governments——

(A) to avoid conflicts or duplication of effort;

(B) to resolve concerns; and

(C) to allow for concurrent, rather than sequential, reviews;

(6) providing demonstrable improvements in the performance of Federal permitting and review processes, including lower costs and more timely decisions;

(7) expanding and institutionalizing Federal permitting and review process improvements that have proven effective;

(8) developing mechanisms to better communicate priorities and resolve disputes among agencies at the national, regional, State, and local levels; and

(9) developing other practices, such as preapplication procedures.

The Women's Mining Coalition supports these directives and believes their implementation would substantially improve and streamline the permitting process. We also support the reporting requirements in Section 40206(d) that direct the Secretaries to develop a report to Congress within one year that identifies additional measures, including regulatory and legislative proposals that would increase the timeliness of permitting activities for the exploration and development of domestic critical minerals.

The provision in Section 40206(d)(2) that authorizes BLM and USFS to accept cost recovery payments from permit applicants to pay for federal agency staffing and training to facilitate agency reviews of permit applications is another excellent suggestion for streamlining the federal permitting process. Agency staffing shortages can be a source of delay in the permitting process. Cost recovery arrangements could be especially important in Nevada where roughly one-half of the country's Notices and Plans of Operation are filed each year,[36] with many Notices and Plans of Operations being located in just two BLM district offices: Battle Mountain and Winnemucca. The Battle Mountain and Winnemucca BLM District Offices regulate many of Nevada's largest mining operations; their jurisdictions cover several of Nevada's most important mineral districts.

The performance metric established in Section 40206(e) and the annual reports in Section 40206(f) are important tools for monitoring and disclosing the agencies' permitting timelines and track records. They will function as a continuous improvement mechanism to determine if certain steps in the permitting process are contributing to unnecessary delays. Together, these provisions should lead to further refinements and time-savings procedures.

[36] BLM 2020 *op. cit*. Table 3-23.

IX. RFI Question 10: Incentivizing Domestic Critical Minerals Production

> "What types of incentives would be appropriate to encourage the development of critical minerals, and what is the proper definition of a "critical mineral mine"?

A. Eliminating the Current Disincentives Would Incentivize Critical Minerals Production

The most effective way to incentivize critical minerals production is to eliminate the two major disincentives listed below that are currently obstructing mineral exploration and development:

1. Bills like H.R. 7580 that are hostile legislative proposals to overhaul the Mining Law that are perennially introduced in this subcommittee and in the SENR Committee; and
2. The protracted mineral exploration and mine permitting processes that are fraught with uncertainties, take too long, and cost too much.

H.R. 7580 and its predecessor versions considered in earlier sessions of Congress send a strong and continual signal that mining is not welcomed in the U.S. These bills chill investment in U.S. mineral exploration and development that adversely affects critical minerals projects. Even if H.R. 7580 is not enacted, it and previous bills have cast a dark shadow on the future of mining on U.S. public lands because these unfavorable legislative proposals create concerns that the U.S. does not have stable mining policies.

This perceived instability makes companies reluctant to invest the hundreds of millions of dollars necessary to explore for minerals and develop mines.

The importance of keeping public lands open to mining by maintaining the current mining claim system and eliminating the other uncertainties created by H.R. 7580 and similarly hostile legislative proposals cannot be overstated. As shown on Figure 4 on the following page, data from the Nevada Division of Minerals show that Nevada hosts deposits of 33 of the 50 minerals on the U.S. Geological Survey's 2022 list of critical minerals.[37] Many of these minerals are located on the 60 million acres of federal minerals estate subject to the Mining Law in Nevada (see Table 2.)

Because Nevada is the country's largest public lands mining state, with over one-half of the nation's active mining claims, Nevada stands poised to become an important future source of domestic critical minerals. In the foreseeable future, Nevada is likely to become a major source of domestic lithium production from the numerous lithium claystone deposits that have recently been discovered and are in various stages of exploration and development. There are several sizable, advance-stage lithium claystone deposits in the following Nevada counties: Humboldt, Nye, and Esmeralda. Southeastern Oregon also contains a known, large lithium claystone deposit.

Adopting the royalty incentives discussed in Section III would also incentivize critical mineral exploration and development. Exploration and development of domestic mineral deposits would increase if companies were confident that critical mineral production would be assessed a fair and workable net royalty at a reasonable royalty rate, that claims maintenance fees and other fees could be credited against future royalty payments, and that flow-through investment incentive similar to those in Canada were applicable to critical mineral investments.

The permit streamlining measures described in Section VIII would also incentivize exploration for and development of critical minerals. The current lengthy permitting process is a significant disincentive that makes it less attractive for companies to pursue U.S. critical minerals projects when similar projects can be permitted in Australia and Canada for a fraction of the time (two to three years) compared to U.S. projects, which take seven to ten years, or longer.

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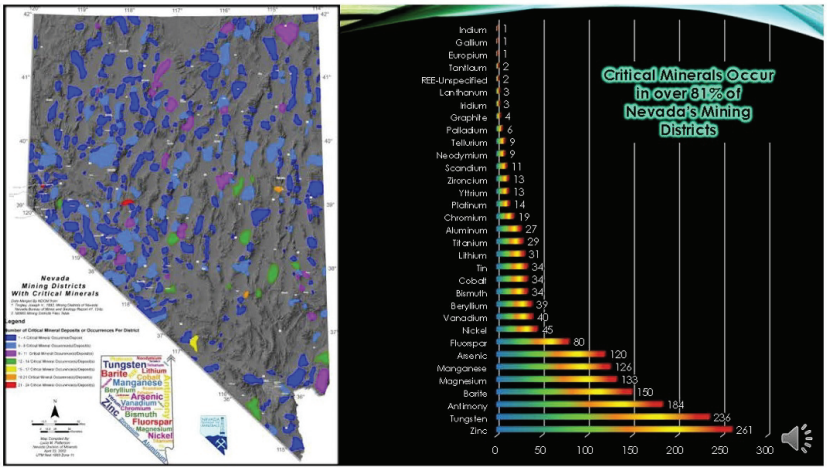
[37] https://www.usgs.gov/news/national-news-release/us-geological-survey-releases-2022-list-critical-minerals.

Figure 4: Distribution of Critical Mineral Deposits in Nevada



B. Expanding the Definition of Critical Minerals would Increase Critical Minerals Production

Section 40206(b)(2) of the recently enacted Infrastructure Investment and Jobs Act/Bipartisan Infrastructure Law recognizes that "many critical minerals are only economic to recover when combined with the production of a host mineral." Unfortunately, the U.S. Geological Survey's 2022 list of critical minerals does not adequately recognize this fact.

A 2015 study from the Center for Industrial Ecology at Yale University[38] substantiates that many critical minerals mainly occur in deposits of other more common minerals and illustrates the occurrence of by-product minerals in primary mineral deposits in the "Wheel of Metals Companionality" shown on Figure 5. As described in this study, the principal host metals form the inner, darkest blue circle. Companion elements appear in the outer circles at distances proportional to the percentage of their primary production (from 100 to 0 percent) of the host metal indicated. The companion elements in the white region of the outer circle are elements for which the percentage of their production from the host metal indicated has not been determined.

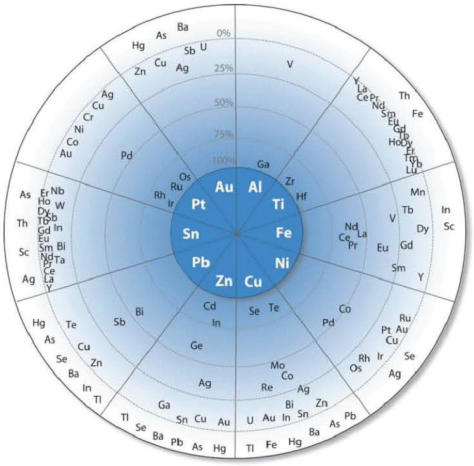
The Wheel of Metals Companionality illustrates there are many primary metal deposits that have significant potential to produce important critical minerals as by-products or co-products. For example, antimony (Sb), is shown in association with primary (host) mineral deposits of gold, (Au), and lead (Pb). Copper (Cu) deposits are a host metal for several critical minerals including tellurium (Te), rhenium (Re), tin (Sn), cobalt (Co), bismuth (Bi), uranium (U), indium (In), barite (Ba), and arsenic (As).

Development of the primary host-mineral deposit is typically the economic driver that enables co-production or by-product production of the critical mineral(s). In many cases, producing the critical mineral as a stand-alone operation is not feasible or economic. The antimony that will be produced as a co-product of gold production at the Stibnite Mine discussed in Section V is a good example of how the economics of host-mineral production facilitates critical minerals production.

Except for aluminum (Al), the U.S. has significant mineral deposits of all of the host metals shown in the inner, dark-blue circle of the wheel: titanium (Ti); iron (Fe); nickel (Ni); copper (Cu); zinc (Zn); lead (Pb); tin (Sn); platinum (Pt); and gold (Au). Critical mineral production could be incentivized by policies that encourage development of host-mineral deposits where critical minerals can be produced as co-products and by-products.

[38] https://advances.sciencemag.org/content/1/3/e1400180.

Figure 5. Wheel of Metals Companionality



X. RFI Question 11: Should Lands be Off-limits to Mining

> "Are there areas that should be off-limits from mining, and if so, how should those be identified?"

There can be no doubt that putting more lands off-limits to mining would increase the Nation's reliance on foreign minerals. Knowing with some precision the amount of federal land that remains open to location under the Mining Law should inform Congress' and the Administration's deliberations about how much land should remain subject to the Mining Law and whether more lands should be put off limits.

Unfortunately, Congress and the federal land management agencies do not have this essential data. According to the GAO's May 2019 letter report to U.S. Senator Tom Udall entitled *Hardrock Mining: Availability of Selected Data Related to Mining on Federal Lands*,[39] BLM and USFS do not know the percentage of the federal mineral estate that has already been withdrawn from mineral entry under the Mining Law. It is inappropriate to consider the land withdrawal provisions in H.R. 7580 without obtaining this information.

NDOM's data show roughly 19.5 percent of Nevada's public lands are designated for conservation or preservation purposes, making them partially or completely off-limits to mineral activities. Congress must not develop additional legislative or administrative ways to set aside more western public lands from operation of the Mining Law without first knowing how much of the federal mineral estate in the Mining Law states is already unavailable for mining.

Former DOI Solicitor, John Leshy, recently presented data showing that out of the 600 million acres of reserved public lands, roughly 400 million acres are set aside for conservation and preservation purposes and are thus functionally off-limits to mining. According to Professor Leshy, during the period from 1980 to 2020, the acres of conservation and preservation lands grew from 250 million to 400 million.[40] These statistics show that existing land withdrawal and conservation measures are effective in setting aside lands, calling into question why the new mining-specific tools in H.R. 7580 are warranted. Before inserting land withdrawal provisions into the Mining Law, Congress should evaluate whether additional land withdrawal tools are necessary and if it is sound public policy to bar mining on additional lands,

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[39] https://www.gao.gov/products/gao-19-435r. This GAO investigation asked the Department of the Interior (DOI)/Bureau of Land Management (BLM) and the Department of Agriculture (USDA)/U.S. Forest Service (USFS), for information on 16 hardrock mining data elements and found the agencies had no information on six elements.

[40] John D. Leshy, *America's Public Lands—A Look Back and Ahead*, 67th Annual Rocky Mountain Mineral Law Institute, July 19, 2021.

keeping in mind that mining has impacted just 317,783 acres (roughly 0.05 percent) of the Nation's federal mineral estate subject to the Mining Law.

It is not necessary to withdraw lands in order to protect the environment at future mine sites. As described in Section II, the existing regulatory requirements and environmental performance standards applicable to mining effectively safeguard the environment at today's mines. Modern mining regulations prohibit approving a project that would create unnecessary or undue degradation on BLM-administered lands (43 C.F.R. § 3809.5) or that fails to minimize adverse environmental impacts on National Forest surface resources (36 C.F.R. § 228.8). In addition to these surface management regulations, the numerous federal environmental laws listed in Table 1 and state laws and regulations also protect the environment at mining operations.

There are existing statutory and administrative tools for withdrawing truly exceptional lands where there is a compelling and demonstrable public interest in barring mining on these lands despite the need for minerals. H.R. 7580 essentially jettisons the existing rigorous land withdrawal processes that appropriately consider broad public interests in determining whether lands are more valuable for their mineral resources or for scenic, cultural, recreational or other land uses.

The suitability determination provision in Title I, Section 112 gives the Secretary a mine veto without any attempt to balance the need for minerals and other uses of public lands as is currently mandated under FLPMA Section 102(a)(12). The laundry list of "Special Characteristics" that make lands unsuitable for mining will put broad swaths of land off-limits to mineral development. Widespread site characteristics including the presence of water resources and aquifers, lands eligible for the National Register of Historic Places, lands with critical habitat, and the "adjacent lands" buffer zone in Title I, Section 112, will be used to withdraw large blocks of land from mining. Even more problematic is the vague, catch-all provision in Section 112(b)(2)(F) that authorizes the Secretary to designate "the presence of other resource values as the Secretary concerned may by rule specify, determined based upon field testing, evaluation, or credible information that verifies such values."

Given our urgent need for domestic sources of critical minerals, it would be unwise to create a new process for designating lands that contain valuable critical minerals like lithium, copper, antimony, nickel, cobalt, rare earths and others off limits to mining without giving equal consideration to the country's needs for these minerals.

XI. Conclusions

Despite its title, "The Clean Energy Minerals Reform Act," H.R. 7580 will not promote the development of domestic clean energy minerals to support the Biden Administration's goals to reduce carbon emissions, phase out fossil fuels, and shift to carbon-free energy systems. Although there would never be a right time to enact the draconian measures in H.R. 7580, this is an especially bad time to make radical changes to the Mining Law that will make mining clean energy minerals more difficult if not impossible.

Transitioning from the claims system to a leasing system is especially inappropriate right now given the exponential demand for the hardrock minerals needed to power the clean and renewable energy systems to help the Nation achieve its goals for national electrification and to meet the targeted 2030 reductions in greenhouse gas emissions. The one-year timeframe for the Secretary of the Interior to write the claim conversion regulations after the date of enactment is completely unrealistic. Once the regulation has been written, it will require at least several years to implement. This timeline will be a serious impediment to achieving the 2030 carbon emission reduction goals and will contribute to further weakening of our mineral supply chains.

H.R. 7580 is diametrically at odds with the Administration's clean energy policies, including President Biden's recent declaration to use the Defense Production Act to increase critical minerals production. It flagrantly ignores the President's directive to form the IWG with the express purpose of seeking public comments on the Mining Law, mining regulations, and permitting. While the IWG is asking the public for suggestions on how to incentivize critical minerals production, enact a royalty that encourages production, and ways to streamline and improve the permitting process, the sponsors of H.R. 7580 are simultaneously trying to take the country in an entirely different direction that will substantially reduce domestic mineral production.

Because H.R. 7580 is designed to reduce and even eliminate mining on public lands, its sponsors did not need to do the hard work of creating thoughtful and practical land tenure, royalty, or environmental provisions suitable for hardrock mining.

To the contrary, they have cobbled together policies developed for other commodities and imposed them on hardrock minerals. The royalty proposed in H.R. 7580 is borrowed from the oil, gas, and coal program, energy minerals that occur in substantially different and much simpler geologic settings than hardrock minerals. The leasing and permitting procedures in H.R. 7580 are imported from the 75-year old unsuccessful federal hardrock leasing program for acquired lands.

The War in Ukraine demonstrates the dangers of relying on adversaries like Russia and China for minerals. Since 1995, the U.S. reliance on foreign minerals has nearly doubled. In 1995 we imported 100 percent of just eight minerals and 50 percent or more of 16 minerals. Today, we import 100 percent of 17 minerals and 50 percent or more for another 30 minerals. This growing reliance on foreign minerals is not for lack of domestic mineral resources. The minerals on America's public lands are a precious endowment that could provide domestic sources of most of the minerals needed to strengthen domestic supply chains and achieve our clean energy objectives. Obtaining minerals from domestic mines would ensure our minerals come from the cleanest and safest mines in the world because the existing comprehensive federal and state environmental laws and regulations that govern mining ensure a clean and safe environment at America's mines.

As Congress contemplates amending the Mining Law, the Women's Mining Coalition strenuously opposes H.R. 7580 and strongly recommends that the following key elements of the current law be preserved to encourage development of the mineral resources on our public lands:

- Maintain the existing mining claims system which provides the security of land tenure necessary to attract investment in mineral exploration and development.

  Do not jettison the claims system and substitute the impractical leasing system in H.R. 7580, which has a 75-year history of failure to produce minerals and generate royalties from hardrock mining operations on acquired lands.

- Keep lands open to mineral exploration and development.

  Do not put more lands off-limits to mining as proposed in H.R. 7580.

- Preserve the Plan of Operations permitting system for life-of-mine permits that comply with environmental protection standards and provide reclamation bonds.

  Do not adopt the impractical and unworkable permitting process in H.R. 7580 that is based on the federal hardrock leasing procedures that have a long history of discouraging mineral exploration and mining on acquired lands.

- Require compliance with the existing framework of federal and state environmental protection regulations that effectively prohibit unnecessary impacts, safeguard all aspects of the environment, and mitigate mining impacts.

  Do not create the unworkable environmental standards in H.R. 7580 that fail to recognize that mining creates some impacts that are unavoidable and necessary and gives regulators the discretion to deny projects that create unavoidable impacts.

- Retain current financial assurance requirements to guarantee reclamation.

  The U.S. EPA's CERCLA 108(b)final rule found that existing financial assurance requirements guarantee reclamation of modern mines and will prevent today's mines from becoming tomorrow's environmental problems.

- Streamline the mine permitting process to minimize delays and uncertainties that chill minerals investment.

  Enact the streamlining measures in Section 40206 of the Infrastructure Investment and Jobs Act.

- Use the Mining Law holding fees not needed to administer BLM's Mining Law Program to establish a federal fund to reclaim abandoned hardrock mines on public lands.

  Based on FY 2020 statistics, roughly $29 million per year could be used for this purpose.

Thirty years ago, Women's Mining Coalition started working with the 103rd Congress on proposed legislation to amend the Mining Law. Many aspects of the Mining Law debate have not changed much in the past thirty years.

Today, we stand ready to work with the 117th Congress on this issue with the sincere hope that we can have a thoughtful dialogue about the Mining Law that focuses on enacting policies that will reverse the current decline in mineral production, encourage mineral exploration and development to strengthen domestic supply chains for minerals—especially the minerals that are crucial for the clean energy revolution, and enable reprocessing and reclamation of previously mined materials that contain critical mineral resources by exempting these sites from Clean Water Act and CERCLA liability.

The Women's Mining Coalition appreciates this opportunity to testify.

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The following documents were submitted as supplements to Ms. Struhsacker's testimony. These documents are part of the hearing record and are being retained in the Committee's official files. Ms. Struhsacker's submitted testimony along with these Supplemental Exhibits is available for viewing at:

https://naturalresources.house.gov/imo/media/doc/Testimony%20-%20Struhsacker%20-%20EMR%20Leg%20Hrg%20-%205.12.22.pdf

LIST OF EXHIBITS

Exhibit I—July 2021 Testimony of Mr. Jim Cress, House Energy & Mineral Resources Subcommittee

Exhibit II—January 2007 Testimony of Mr. Jim Cress, Senate Energy and Natural Resources Committee

Exhibit III—July 2017 Testimony of Mr. Jim Cress, House Energy & Mineral Resources Subcommittee

Exhibit IV—October 2021 Testimony of Mr. Rich Haddock, Senate Energy and Natural Resources Committee

Exhibit V—October 2021 Testimony of Ms. Katie Sweeney, Senate Energy and Natural Resources Committee

Exhibit VI—American Exploration & Mining Association Mining Law Fifth Amendment Takings Analysis

Exhibit VII—Nevada Division of Environmental Protection—Bureau of Land Management—U.S. Forest Service Memorandum of Understanding

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QUESTIONS SUBMITTED FOR THE RECORD TO DEBRA W. STRUHSACKER, THE WOMEN'S MINING COALITION

Questions Submitted by Representative Stauber

Question 1. Why is a claims system so much better suited to hardrock development than a leasing system in the United States? Some nations do have leasing systems for hardrock minerals—why does leasing function in some places, but would not work the same way in the United States?

Answer.

A. The Unworkable and Impractical Aspects of the Minerals Leasing System in H.R. 7580

The leasing system proposed in H.R. 7580 is identical to the failed leasing program currently in place for hardrock minerals on acquired lands. As documented in a May 2020 Government Accountability Office's (GAO's) report,[1] in FY 2018, this program had only 20 hardrock mineral leases nationwide that had operating mines, just seven of which generated an inconsequential $8.7 million in federal royalty

[1] Mining on Federal Lands, GAO-20-461R, May 28, 2020, https://www.gao.gov/products/gao-20-461r.

payments. It is likely that six operating leases for lead, zinc, and copper mines in Missouri paid most of this royalty.

The meager mineral production from the Nation's acquired lands does not reflect a lack of mineral potential. To the contrary, there are some promising mineral deposits known on these lands. The federal leasing program for hardrock minerals on acquired lands clearly fails to realize benefits from the mineral wealth on these lands and is an ineffective way to generate revenue from mineral production. If this leasing system worked well, there would be many more leases producing minerals and paying royalties.

The lack of meaningful mineral production and royalty payments from hardrock mineral projects on acquired lands is due to the unfavorable prospecting permit procedures and lease terms that impede exploration and development. The acquired lands hardrock minerals leasing program is a failure because it does not provide the security of tenure required to explore for, discover, develop, and mine hardrock minerals, which are rare, difficult, time-consuming, and costly to find. According to the National Research Council/National Academy of Science 1999 report,[2] 1,000 mineral targets must be identified and evaluated to discover a single deposit that can become a mine. It can take ten to twenty years to discover and develop a hardrock mineral deposit. This timeframe is simply incompatible with the arbitrarily truncated time limits and acreage restrictions that would be applicable to the prospecting permits and minerals leases in H.R. 7580.

The H.R. 7580 leasing system replicates the barriers to mineral exploration and development in the acquired lands leasing program. Just like the hardrock minerals leasing program on acquired lands, H.R. 7580 includes the following unworkable time limits and acreage constraints that are unsuited to hardrock mineral exploration and development:

- Prospecting licenses or permits are limited to two years with a maximum four-year discretionary extension, and are restricted to 2,560 acres per permit and a 20,480-acre per person/company per state limit;[3] and
- Hardrock mining leases are limited to a primary term of 20 years, which may not be long enough to develop and mine many deposits. This artificial time constraint is not in the public's best interest. A mining lease must provide security of tenure for as long as it takes to develop and mine a deposit.

The acreage and time limits for prospecting permits and leases are modeled after the temporal and spatial parameters for leasable minerals (e.g., oil, gas, coal, phosphate, potash, and sodium) in the Minerals Leasing Act of 1920, 30 U.S.C. §§ 181 et seq. The significant differences in the geologic settings for hardrock minerals compared to oil, gas, and coal (as discussed below) make shoehorning a system developed for oil, gas, and coal and force-fitting it onto hardrock minerals inappropriate, and is the main reason the federal hardrock minerals leasing program on acquired lands is a failure.

At a broader level, even if a leasing system that provided adequate security of tenure were developed, Congress would need to consider the practical implications of developing and implementing such a system at a time when the Nation is already challenged to move critical and strategic mineral projects forward under the current system. Changing from a claims system to a leasing system would take years. During this multi-year transition period, investment in mineral exploration, development, and production would decrease in response to the uncertainty, making the U.S. would become even more dependent on foreign minerals. Given the Nation's need for critical minerals for clean energy systems, national defense, manufacturing, infrastructure and other important applications, this would be an especially bad time to change the land tenure system for hardrock minerals.

B. Why Self-Initiation and Mining Claims are Optimal for Hardrock Minerals

The geology of hardrock mineral deposits must define the land tenure system. The Mining Law claim location system is exceptionally well-suited for hardrock mineral exploration because it promotes self-initiation and facilitates the iterative exploration process that is necessary to discover minerals. This process involves gradually zeroing in on mineralized areas, which may take decades, using the data obtained from exploration drilling and other mineral investigation techniques, which evolve and improve over time. Collecting these data allows geologists to upgrade or

[2] Hardrock Mining on Federal Lands, page 24.

[3] The acreage and time limits for prospecting permits and leases are modeled after the temporal and acreage parameters for leasable minerals (e.g., oil, gas, coal, phosphate, potash, and sodium) in the Minerals Leasing Act of 1920, 30 U.S.C. §§ 181 *et seq*.

downgrade prospective areas, and to modify the size of a claim block on the basis of this information by either dropping or adding claims. Under this self-initiated exploration and claim location system, there are no arbitrary or rigid time limits or acreage restrictions unlike the H.R. 7580 limits for prospecting permits and minerals leases. At the same time, all the costs and risks are borne by the individual or company conducting the exploration and their investors.

Hardrock minerals are rare and hard to find. They are typically found in areas with complex geology where the host rocks have been folded, faulted, and altered by mineralizing fluids. In contrast, oil and gas deposits are fairly abundant. They occur in well-understood, large sedimentary basins that can be effectively explored using geophysical techniques that require little or no surface disturbance. Laterally extensive coal seams are also easy to identify.[4] The substantial differences in the geologic setting of oil, gas, and coal compared to hardrock minerals is one of the main reasons the federal leasing programs for coal, oil and gas cannot be successfully used for hardrock minerals.

Mr. Rich Haddock's[5] October 2021 testimony before the Senate Energy and Natural Resources Committee, which is attached as Exhibit I, documents the costs, time, and difficulties in discovering a hardrock mineral deposit. As discussed in Mr. Haddock's testimony, Barrick Gold Corporation's Goldrush-Fourmile Project in Nevada is 2,000 feet below the ground surface. Barrick drilled 427 holes in the project area before discovering the deposit.[6] The costs to drill each exploration drill hole at this project has ranged from $500,000 to $1 million. Barrick has been exploring this project for over 20 years, has drilled roughly 1,200 holes to define the size and grade of this deposit, and spent over $459 million in drilling and technical and environmental studies.

The footprint of the 2,000-foot deep orebody projected to the surface covers roughly 45 acres, which is slightly larger than two unpatented mining claims. (An unpatented mining claim can cover a maximum of about 20 acres.) The Plan of Operations boundary covers 19,895 acres of land comprised of 772 acres of private land and 19,123 acres of BLM-administered public lands.[7] The comparative sizes of the ore deposit (45 acres) and the surrounding project area (19,825 acres) illustrates the difficulties in finding an ore deposit, and helps explain why it took so long and so many drill holes to discover the Goldrush-Fourmile deposit. The exploration history and expenditures at the Goldrush-Fourmile Project are not atypical for a hardrock mineral exploration project, and are emblematic of the daunting nature of hardrock mineral exploration, which is literally like looking for a needle in the haystack.

Under the federal leasing programs for oil, gas, and coal, the federal government decides where companies can explore for and develop these energy resources. That is a workable system for oil, coal, and gas because both the federal government and the industry know with some precision where these resources are located before they are leased. This is not the case for hardrock minerals, whose locations are not known prior to drilling numerous exploration drill holes.

To make a hardrock mineral leasing system work, the federal government would have to invest billions to discover hardrock minerals. Because the government has not made this investment on acquired lands, and the current prospecting permit-leasing system on these lands discourages private-sector investment, the federal leasing program for hardrock minerals on acquired lands is unsuccessful. Replicating this failed system on public domain lands will be similarly unsuccessful.

C. There are No Problems Identified with the Self-Initiated Claim System

It must be emphasized that there are no problems with the self-initiated claims location system that need to be solved. In fact, there is a compelling public interest in preserving this system because taxpayers benefit from the substantial private-sector investments made to explore for minerals under the existing Mining Law.

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[4] As explained in Mr. Jim Cress' July 2017 testimony before this Subcommittee, coal is a solid mineral of generally uniform quality and composition that requires little or no processing. In the West, where most federal coal deposits exist, coal beds are vast, world-class deposits of great thickness. For example, in Wyoming's Powder River Basin, coal beds average 80 feet and up to 200 feet in thickness. Little exploration for coal is required, and it is relatively easy to determine the quality of the coal and the thickness of a seam prior to mining with drilling and sampling. (See Exhibit III, page 5 of my May 2022 testimony.)

[5] Mr. Haddock is General Counsel of Barrick Gold Corporation.

[6] https://www.barrick.com/English/news/news-details/2018/fourmile-journey-to-a-high-grade-discovery/default.aspx.

[7] https://www.govinfo.gov/content/pkg/FR-2021-08-10/pdf/2021-17040.pdf. To secure the company's land position, Barrick has over 900 unpatented mining claims on the public lands in the project area.

Self-initiation deploys private investment to take the initiative to locate claims based on preliminary concepts about where minerals may be located and effectively leverages private investments that transform undeveloped federal land into mining operations that create jobs, pay taxes, and provide the minerals the country needs—at no expense whatsoever to U.S. taxpayers.

Also, it is important to understand that the U.S. Bureau of Land Management (BLM) knows where all mining claims in the country are located because claim owners must record the locations of their claims and pay annual claim maintenance fees. Although the self-initiated claims system does not dictate where prospectors explore for minerals on lands open to location under the Mining Law, the BLM maintains an accurate database of where active claims are located. Therefore, allegations that the claims location system does not give the federal government adequate information about where claims are located to manage public lands have no merit.

D. Elements of Successful Mineral Leasing Programs

There are examples of workable minerals leasing programs in some western states and in other countries where these systems successfully attract mineral investments, encourage mineral exploration, produce minerals, and generate taxes or royalties payable to the lessor. However, these systems are markedly different from the leasing system proposed in H.R. 7580.

Successful mineral leasing programs are specifically designed to stimulate and facilitate mineral discovery and production. They do not include any of the time restrictions or acreage limitations described above in H.R. 7580. Successful leasing programs are premised on the key principle that the lessor and lessee share a common and mutually beneficial goal to find mineral deposits that can become a mine that pays royalties to the lessor. The H.R. 7580 leasing program has none of these attributes because the lessor (e.g., the federal government) is a hostile landlord whose prospecting permits and mineral leases create numerous barriers to mineral exploration and development.

Given the current extraordinary demand for minerals to build clean energy infrastructure, to power electric vehicles, and to electrify the Nation, this is an exceptionally inappropriate time to make sweeping changes to the land tenure system in the Mining Law. Because there are no demonstrated problems with the claims location system, there would be no public policy benefits from converting the claim location system to a minerals leasing system—even if the terms of a future minerals leasing system provided adequate security of land tenure to promote mineral exploration and development.

Transitioning from a claims system to a leasing program would be an extraordinarily complicated and time consuming process to develop and implement new leasing regulations and procedures, which could be delayed by years of litigation in the federal court system. During this protracted transition period, mineral exploration and discovery would decline due to the uncertainties about the terms in a future minerals leasing program. The net result would be reduced mineral production during the transition period and increased reliance on foreign minerals.

Question 2. Federal oil, gas, and coal all operate in the United States with a 12.5 percent royalty. Why shouldn't hardrock mining have the same rate? Can you explain the difference between a "net" and a "gross" royalty, and why that matters in regards to hardrock production?

Answer.

A. Royalty Rates

All royalties—whether they are a gross royalty or a net royalty—add operating cost to every ounce of produced minerals. The bigger the royalty, the bigger the cost. The most immediate impact of a royalty is it reduces cash-flow. Another important and unfavorable impact of a royalty is the reduction in reserves and resources. If an excessive royalty increases the cost per ounce too much, reserves will shrink, mine life will be shortened, and the capital used to build the mine will be wasted because the mine will have to close before the investment in the mining and processing facilities can be recouped.

The end result of a confiscatory royalty is that mines are forced to close prematurely, leaving reserves in the ground. An excessive royalty hurts both the mine owner and the community as the economic engine that a mine creates for state and local governments grinds to a halt. High-paying mining jobs are lost and revenue streams from tax payments and the purchase of goods and services vanish.

An especially problematic aspect of the royalties in H.R. 7580 is that they would be applied retrospectively to claims in existence on the date of enactment. This will exacerbate the economic hardships that a royalty creates and will likely cause premature closure of those currently operating mines that cannot remain economically viable if they must pay an eight percent gross royalty. As discussed in Section III of my May 12, 2022 written testimony, imposing a retroactive royalty on existing mining claims will expose the federal government and taxpayers to Fifth amendment Constitutional takings claims.[8]

The dramatically different geologic and market characteristics of oil gas, coal, and hardrock minerals dictate the need for different approaches to assessing an appropriate royalty rate for these materials. A cookie-cutter approach that uses the 12.5 percent gross royalty applicable to oil, gas, and coal is overly simplistic and fails to consider the significant differences in how and where these minerals occur, how they are produced, substantial differences in processing costs, and marketplace realities. Using the federal royalty rate for oil, gas, and coal for hardrock minerals is just as unworkable and inappropriate as replicating the federal hardrock leasing system on acquired lands to public domain lands.

Because coal, phosphate, sodium, and potash are solid minerals that are mined from the ground rather than pumped from wells, they are more similar to hardrock minerals than oil and gas and help illustrate why a one-size-fits all 12.5 percent royalty rate is inappropriate. First, there are two different royalty rates for federal coal: 8 percent for coal mined from underground operations; and 12.5 percent for coal mined from surface operations. These different royalty rates reflect the different costs associated with underground mining operations, which are typically more expensive to operate than surface mining operations. Because hardrock minerals are produced from both underground and surface mines, a uniform 12.5 percent royalty rate would be similarly inappropriate.

Second, a uniform 12.5 percent rate is not applicable to other leasable minerals besides oil, gas, and coal. The leasable minerals sodium, potash, and phosphate are not assessed a uniform 12.5 percent royalty rate because these low-margin industrial and fertilizer minerals cannot support a 12.5 percent royalty rate. The statutorily established base rate for phosphate is 5 percent and is 2 percent for potash and sodium. These different royalty rates reflect the different nature and economics of these commodities as well as their dissimilar marketing considerations. Thus, the federal royalty rates for these leasable minerals take into account the differences in these minerals' value and market dynamics, and clearly demonstrate there is precedent for not applying a one-size-fits-all 12.5 percent royalty rate to all leasable minerals.

Historically, mines for these leasable minerals have paid lower royalty rates during periods when economic conditions and foreign competition have resulted in the federal government accepting lower royalty rates to keep these mining operations from becoming unprofitable, because it is not in the public's best interest for mines that cannot afford to pay the federal royalty to close. Under these circumstances, a lower government-approved royalty rate is sound public policy because it allows a mine to continue to operate, employ workers, and pay taxes and royalties during economically challenging times.[9]

Another compelling reason why applying a 12.5 percent royalty rate to hardrock minerals would be inappropriate is that this would make U.S. mines uncompetitive compared to hardrock mining operations in other countries. Testimony from Ms. Katie Sweeney[10] in October 2021 before the Senate Energy and Natural Resources Committee describes why royalty rates must consider the total government "take," defined as the aggregate of federal, state, and local royalties, taxes, and fees, and compare that take to what mineral producers pay in other countries. A future federal hardrock royalty must not make the total government take so high that U.S. mines cannot compete with mines in other countries.

As explained in Ms. Sweeney's testimony, the existing government take affecting U.S. hardrock mining operations is close to 40 percent for most NMA members, which is close to the top range for other cost-competitive mining countries. The 8 percent gross royalty on new mining operations and the 4 percent on existing operations that were being considered last fall in the Budget Reconciliation Bill would have increased the total government take to over 50 percent and would have made the U.S. an uncompetitive country for mineral investment and mining. The higher

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[8] Also see Exhibit VI, "American Exploration & Mining Association Mining Law Fifth Amendment Takings Analysis," in my May 22, 2022 written testimony.

[9] Jim Cress, *op cit*.

[10] Executive Vice President and General Counsel of the National Mining Association (NMA). Ms. Sweeney's testimony is included as Exhibit V in my May 2022 testimony.

(8 to 12.5 percent) royalty rates proposed in H.R. 7580 would increase the total government take for U.S. mines making them even less competitive.

Mr. Haddock's testimony at the same October 2021 hearing (see Exhibit I) compares the total government take in the U.S. compared to Australia or Canada, our two most important mining allies. Currently, the three countries have about the same total government take ranging from 38 to 39 percent. Adding a 2 percent *net* royalty to hardrock mineral production on federal land would increase the total take on U.S. hardrock mining operations to roughly 41 percent. At this rate, U.S. mines would not be cost competitive with mines in Australia or Canada. Obviously, imposing the 8 to 12.5 percent royalties in H.R. 7580 would make U.S. mines even less competitive with mines in Australia and Canada—especially in light of the far more reasonable two- to three-year permitting timeframes in these countries.

B. Net versus Gross Royalties

Although there is widespread belief that oil, gas, and coal pay a gross federal royalty, this is not true. All three commodities pay a net royalty because certain allowable deductions are applied to the value of these energy minerals before calculating the royalty. As the GAO explains, the "gross" royalty that coal miners pay on coal produced from federal coal leases allows coal mine operators to subtract certain costs to produce a sellable product before the royalty is computed:

> "For coal, certain costs are deducted from the price of coal at the first point of sale, including transportation and processing allowances, before the amount is calculated for royalty purposes." [11]

Similarly, federal oil and gas royalties are a net royalty and not a gross royalty because they are based on the value of the sellable products from an oil and gas well. Although federal royalties for oil, gas, and coal are called gross royalties, this is a misnomer. The federal oil, gas, and coal royalties are in reality comparable to a net royalty because they are based on the value of the sellable products from an oil and gas well or a coal mine.[12]

Unlike crude oil and natural gas, for which there are market valuations on a per barrel or per MMBtu basis respectively, there is no market or valuation for "crude" (i.e., unprocessed) hardrock mineral ores as defined in H.R. 7580. For example, the Commodities Market Digest on Page 8 of the May 20, 2022 edition of the *Wall Street Journal* shows market prices of $121.21 per barrel for crude oil and $8.308 per MMBtu for natural gas. This Commodities Market Digest does not show a price for crude gold ore because it has no market value and is never sold as crude ore. It does, however, list the price that day for refined gold as $1,841.20 per troy ounce.

To illustrate the point during the hearing that crude ore must be processed to extract the valuable and sellable hardrock minerals, I showed the piece of crude gold-silver ore from a mine in Nevada that is shown on the following page. The dark-gray lines contain the gold and silver. But before these precious metals can be recovered from this crude ore, the rock must be crushed, ground to a fine powder, and subjected to a number of metallurgical processing steps to liberate the gold and silver and produce a product called doré that gets sold. The doré must then be refined, typically at an off-site facility, to produce gold and silver that can then be used for currency, medical applications, electronics, jewelry, etc.

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[11] Oil, Gas, and Coal Royalties, Government Accountability Office Report, June 2017, GAO-17-540.

[12] Cress, *op cit*.

Photograph of Crude Gold-Silver Ore

The H.R. 7580 royalty does not allow deductions for any of the costs to transform crude ore into a sellable product. This is *not* comparable to the federal royalties for oil, gas, and coal which are based on the value of the first sellable products *after* certain allowable deductions for the costs to produce a sellable product.

A workable hardrock royalty program needs to have a similar structure that allows deductions for the processing steps needed to produce the first sellable hardrock mineral product. To be treated equitably with oil, gas, and coal, a future federal hardrock mineral royalty should be assessed at a comparable point in the value-added steps to produce the first sellable product. For hardrock minerals, the mine operator must be able to deduct the costs associated with the value-added mineral processing steps that are necessary to produce a sellable mineral product. The H.R. 7580 royalty is unfair and confiscatory because it is calculated on the gross value of mineral products that includes the value added by the operator to process, refine, and produce a sellable mineral product from the crude ore removed at the initial step in the mining process.

Because commodity price cycles are variable and cyclical, a gross royalty has a very different effect on mining investment compared to a net royalty. Royalties assessed on gross income discourage investment by increasing economic risks. Consequently, projects subject to a gross royalty will require a higher pretax and after-tax rate of return to accommodate the increased risk. In contrast, a net royalty has a smaller effect on the variability of after-tax rates of return and is less of a deterrent to investment. When commodity prices decrease, the rate of return required to justify a mining investment increases more dramatically under a gross royalty than under a net royalty. A gross royalty takes a bigger piece out of the mine's income during periods of low commodity prices.

A gross royalty is especially problematic during industry downturns due to low commodity prices because they cause a greater reduction in cash-flow during periods when profits are already low. A gross royalty can functionally reduce the size of the ore deposit that remains economic to mine. During low commodity price cycles, low-grade ores may become uneconomic to mine and process and become low-grade waste materials that are not processed or mined at all, which shortens the life of the mine and reduces the total amount of mineral that will be produced from the mine. Gross royalties may thus contribute to premature mine closures with the concomitant loss of jobs; reduced local, state, and federal tax revenues and/or royalty payments; and business losses for the mine's vendors and suppliers, which in turn harms nearby communities and local and state governments.

A net royalty, in contrast, does not cause mines to operate at a loss because the royalty owed is automatically reduced during periods of low commodity prices, and increases again when prices are higher. A net royalty thus allows mining operations

to continue to operate during periods of low commodity prices and also enables maximum recovery of low-grade ore during high commodity prices. Because mineral demand is cyclical and commodity prices fluctuate, a net royalty provides the best incentive to explore for minerals on federal lands in spite of variable mineral demand and commodity price cycles. A net royalty thus minimizes volatility in the mining industry which helps keep the domestic industry viable and the nation's mineral supply secure, which is in the public's best interest.

Fuel costs have a significant impact on a mine's bottom line. Mines subject to a net royalty will be in a better position to withstand the current extraordinarily high costs for diesel and natural gas compared to mines that must pay a gross royalty. This is another public policy benefit of a net royalty compared to a gross royalty. A net royalty allows mines to continue operating during periods of high costs for the fuel, power, and supplies needed to keep a mine running.

For many years, the U.S. mining industry has been willing to negotiate a reasonable prospective federal hardrock mining net royalty that recognizes the costs to produce hardrock minerals. A net royalty accomplishes an important public policy objective that provides taxpayers with revenue from mining on public lands while at the same time not creating such a substantial burden that the royalty makes mining uneconomic.

Both taxpayers and mine operators "go to the bank together" under a net royalty. Taxpayers receive higher royalty payments during periods of robust commodity prices. Mine operators pay reduced royalties when commodity prices are low, but their mines have a better chance of remaining economically viable and can continue to operate, keeping mine workers employed and providing tax revenues to local and state governments and corporate federal income taxes.

Question 3. GAO has issued a report saying that the average permitting timeline takes about 2 years, but, in reality, we've observed that it often takes much longer. How long does the average hardrock mine take to become active in the United States, from exploration to production, and why?

Answer. By its own admission, the two-year average mine permitting timeline in GAO's January 2016 report entitled "Hardrock Mining: BLM and Forest Service Have Taken Some Actions to Expedite the Mine Plan Review Process but Could Do More"[13] is based on unreliable and inconsistent data. Therefore, this report does not provide accurate or useful information on how long it takes to obtain permits from the BLM or the U.S. Forest Service for a hardrock mine on western public domain land. In the citations below, GAO acknowledges the serious shortcomings in this investigation:

> "To determine the number of mine plans that were approved from fiscal years 2010 through 2014, we examined data from BLM's Legacy Rehost 2000 (LR2000) system and the Forest Service's Locatable Minerals database—automated information systems the agencies use to track key dates and milestones in the mine plan review process. Through interviews with agency officials, our analysis of these data, and comparisons to other publicly available information from federal agencies, *we determined that these data from these databases were not sufficiently reliable to measure the time it took these agencies to complete the mine plan review process, as discussed later in the report*. Consequently, we instead worked with agency officials to collect data from paper and electronic records maintained by BLM field offices and Forest Service ranger districts to develop a list of mine plans approved from fiscal years 2010 through 2014. To ensure that we reviewed data on comparable projects, we requested data on *mine plans that were 5 acres in size or larger*, and were plans for new mines or mine expansions."[14] (Emphasis added.)

> "Because we selected a nonprobability sample of BLM and Forest Service locations, *our findings are not generalizable* to all BLM and Forest Service locations conducting reviews of mine plans."[15] (Emphasis added.)

> "*BLM and the Forest Service's tracking of the mine plan review process is hindered by limitations with their data systems; as a result, BLM does not have adequate information, and the Forest Service does not have complete*

[13] https://www.gao.gov/products/gao-16-165.
[14] GAO, *op cit*., pages 3–4.
[15] GAO, *op cit*., page 5.

information, necessary to track the length of time to complete the mine plan review process."[16] (Emphasis added.)

In addition to the shortcomings of BLM's and the Forest Service's mine permitting tracking systems and databases described in this GAO report, it is obvious that GAO has misinterpreted the data the agencies provided on the number of Plans of Operation that were reviewed and authorized during the 2010 to 2014 timeframe. GAO incorrectly assumed that all Plans of Operations were for mining operations and failed to understand that most Plans of Operation are for mineral exploration projects—not for mining projects. The following statement illustrates this point:

> "**Mine size**. The sizes of the mines proposed in these 68 plans varied greatly, ranging from 5 to 8,470 acres.[17] The average proposed mine was approximately 529 acres, and the 68 mine plans totaled nearly 36,000 acres."[18]

GAO's failure to distinguish between Exploration Plans of Operation (EPOs) versus Mine Plans of Operation (MPOs) produced a meaningless analysis that inappropriately lumps EPOs and MPOs together. Consequently, GAO's findings that it takes an average of two years to permit a mine are wildly inaccurate and frequently misrepresented. Figure 4 and GAO's summary statement: "Timeframes for approving Plans ranged from about one month to over 11 years and averaged two years"[19] is based on a jumble of apples and oranges data. These widely divergent timeframes reflect it takes less time for the agencies to review and authorize EPOs versus much more time to review and authorize MPOs. Therefore, the analysis in this report has little or no relevance or value and should not be used in future policy discussions about the mine permitting process or the length of time required to permit a mine.

As discussed at length in my July 2021 Questions for the Record[20] for the July 27, 2021 hearing "The Toxic Legacy of the 1872 Mining Law" before the House Subcommittee on Energy and Mineral Resources, GAO made the same error and failed to distinguish between EPOs and MPOs in its May 2020 Report "Mining on Federal Lands, GAO-20-461R,"[21] which led GAO to inaccurately state there are 728 active mining operations on public lands. This grossly overestimates the number of active mines because most of the 728 Plans of Operation are EPOs—not MPOs.

Finally, the 2016 GAO report acknowledges that in addition to permits from the BLM and U.S. Forest Service, most project proponents must also secure many additional permits before a mine can be built and operated:

> "Based on a review of NEPA documents, state permitting guidelines, and studies of hardrock mining requirements, we identified six categories of federal permits and authorizations that mine operators may need to obtain from entities other than BLM and the Forest Service and seven categories of state and local permits and authorizations across 12 western states that may be required depending on the nature of the mining operations . . ."[22]

Congress may want to ask GAO to update and correct its analysis of the amount of time it takes to permit MPOs and EPOs. The following are some recommended parameters that would greatly improve the reliability of a future GAO study:

1) The BLM and the U.S. Forest Service should improve the agencies' recordkeeping and databases to clearly distinguish between EPOs and MPOs; and
2) The GAO should perform separate analyses of the length of time required for the agencies to authorize EPOs versus MPOs.

It would also be useful for GAO to compare the length of time it takes BLM to authorize these mineral activities versus the time it takes the U.S. Forest Service to approve EPOs and MPOs. Based on my experience, this comparison is likely to reveal that it takes longer for the Forest Service to review and authorize EPOs and

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[16] GAO, *op cit*., page 13.
[17] Five acres is the surface disturbance threshold that triggers the requirement to submit a Plan of Operations for mineral exploration activities on BLM-administered lands. The Forest Service requires a Plan of Operations for all surface-disturbing mineral activities, even if only a few acres will be disturbed.
[18] GAO, *op cit*., page 14.
[19] GAO, *op cit*., page 16.
[20] Included herein as Exhibit II. Also see Section III of my testimony for the May 12, 2022 hearing, "Reforming the Mining Law of 1872."
[21] https://www.gao.gov/products/gao-20-461r.
[22] GAO *op cit*., page 17.

MPOs than the BLM. But the permitting timelines for both agencies take too long for both EPOs and MPOs. The permitting process for some EPOs can take longer than two years.

Rather than relying on this inaccurate GAO analysis, Congress may want to consider the data that the Council on Environmental Quality (CEQ) compiled during its recent rulemaking to consider changes to the CEQ regulations implementing the National Environmental Policy Act (NEPA). CEQ's July 2020, report[23] presents information on the timelines it took federal agencies to prepare Environmental Impact Statements (EISs) from 2010 through 2018. CEQ found that it took an average of more than 4.5 years for federal agencies to complete the NEPA process starting with issuance of a Notice of Intent (NOI), completing an EIS document, and issuing a Record of Decision (ROD).

Question 4. Does the lack of a comprehensive resource assessment in the United States for metals and minerals provide a disincentive to mine project proponents under a leasing system, as proposed in H.R. 7580? Please describe why or why not.

Answer. A comprehensive U.S. mineral resource assessment would be extremely useful information that could stimulate more private-sector investment in mineral exploration on federal lands throughout the country, including on public domain and acquired lands *if it is coupled with favorable mining policies*. However, a mineral resource assessment would not make the hardrock mineral leasing program in H.R. 7580 (or the same program that currently governs acquired lands) any more practical or workable because the time limits and acreage constraints discussed in Section I would remain as serious barriers to mineral exploration and development.

The length of time allowed under a prospecting permit (a two-year initial term with a maximum of six years) and the acreage constraints, (a maximum of 2,560 acres per lease and only eight leases, 20,480 acres, granted per company), are not enough time or land to allow the self-initiated and iterative exploration work that is required to find the "needle-in-the-haystack" hardrock mineral deposit. The exploration and discovery timeline described in Section I for Barrick Gold Corporation's Goldrush-Fourmile Project is typical of the length of time (two decades) to discover a hidden mineral deposit that is not exposed at the surface.

Because most mineral deposits that are exposed at the surface have already been explored, it is likely that the majority of future mineral discoveries will be hidden deposits that are covered by a thick sequence of unmineralized rocks. These deposits are difficult, expensive, and time-consuming to discover and delineate. The current claims system is ideal for facilitating the time-consuming and self-initiated iterative exploration process that can lead to a discovery of the hidden mineral deposit. The H.R. 7580 prospecting permit/leasing system is simply impractical. It does not give explorers enough time or land to enable discovery of mineral deposits. The failure of this same system on acquired lands proves that it is an ineffective system for discovering and developing mineral deposits.

The U.S. Geological Survey (USGS) is currently undertaking the Earth Mapping Resources Initiative (Earth MRI), which has the stated goal to:

> ". . . improve our knowledge of the geologic framework in the United States and to identify areas that may have the potential to contain undiscovered critical mineral resources."[24]

The geophysical and lidar surveys that will be performed as part of the Earth MRI may be useful in identifying broad areas with hidden mineral potential. However, if and when the Earth MRI delineates areas with critical mineral potential, it will still be necessary for companies to do the expensive, time-consuming, and iterative exploration work to find the "needle-in-the-haystack" mineral deposit hidden within larger areas with mineral potential. The H.R. 7580 leasing program is completely incompatible with the geologic realities of discovering and developing hardrock minerals. Consequently, the Earth MRI or other mineral resources assessment surveys are unlikely to significantly increase the discovery and development of critical minerals if the self-initiated mining claims system is eliminated and replaced by the H.R. 7580 leasing system.

Conversely, the Earth MRI data may be very useful in stimulating mineral exploration for buried mineral deposits if the current self-initiated claims system under the Mining Law remains in place. This is especially true in the Great Basin portion of western public domain lands where there are broad areas covered by unmineralized rocks. (The Great Basin extends across most of Nevada and about

[23] https://ceq.doe.gov/nepa-practice/eis-timelines.html.
[24] https://www.usgs.gov/special-topics/earth-mri.

half of Utah, with small portions in Idaho, Oregon, Wyoming and California.) The Nevada Division of Minerals estimates that alluvium covers roughly 48 percent of Nevada, obscuring the rocks that may host attractive mineral targets. About 79 percent of these covered lands are currently open to location under the Mining Law.[25]

Question 5. During the hearing, Rep Porter displayed a whiteboard denoting column "A" and column "B," regarding siting decisions and environmental costs of solar farms and mining projects. Could you explain why this isn't an "either/or" proposal in terms of materials needed for solar energy technologies?

Answer. The hypothetical scenario that Congresswoman Porter described on her whiteboard involving conflicting land uses between a hardrock mineral mine and a solar facility reflects a lack of understanding of where and how mines are located versus the site selection process for a solar facility. As described in Section I, hardrock mineral deposits are rare and difficult to find. Statistically, only 1 in 1,000 mineral prospects will have the geological and mineralization characteristics necessary to become an economically viable mine.[26]

Mines can only be developed where a mineral deposit has been discovered. Once a mineral deposit is discovered, it cannot be moved. The Goldrush-Fourmile gold deposit discussed in Section I is a good example of a 20-year long, $459 million exploration effort that was eventually successful in delineating the "needle-in-a-haystack" deposit which is 2,000 feet below the ground surface and covers just 45 acres within a 19,895-acre project area.

In contrast, there may be many feasible locations where the sun shines on a regular basis for a solar facility, which gives solar project proponents the ability to select one or more optimal sites factoring in the hours of sunshine, landownership, zoning, topography, proximity to existing infrastructure, and power users, and other site parameters. The solar developer has the ability to find the best sunny site based on these considerations. Mineral developers do not have the same flexibility because minerals do not occur everywhere the sun shines. They can only hope to discover minerals where geologic conditions are favorable for the formation of a mineral deposit, which may take decades and the investment of hundreds of millions of dollars to discover, as was the case for the Goldrush-Fourmile deposit.

Although a mineral deposit cannot be moved or mined elsewhere, development of a mine and a solar facility are not mutually exclusive land uses. With proper planning and permitting, it may be feasible to co-develop a mine and a solar field to use solar energy to help power the mine. Alternatively, some mine sites are being considered for redevelopment into solar fields once mining has been completed.

Co-development and post-mining redevelopment of mine sites for renewable energy facilities such as solar installations create sustainable use of the transmission lines and other infrastructure developed to support the mine. Because many mine sites use line power and have constructed nearby transmission facilities, capitalizing on this existing electricity transmission infrastructure removes a significant barrier to solar (and wind) power, which otherwise would have to be able to support the costs to build a transmission line to the solar or wind farm. The costs associated with bringing transmission lines to a proposed solar or wind project can make some projects uneconomic. Taking advantage of preexisting transmission infrastructure may make many more solar and wind projects economically feasible.

The Nature Conservancy's (TNC's) "Mining the Sun Initiative" is actively looking for opportunities at operating and old mines to capitalize upon the synergies between mining and renewable energy and is recruiting mining partners with operating and closed mines as potential sites for solar fields:

> ". . . Nevada mine sites have existing road and power line infrastructure, making them attractive for solar development. In fact, . . . there are more than 1 million acres of potential minefields and brownfield sites in Nevada. If developed with solar power, TNC estimates their solar energy generation potential in Nevada to be 20,219 megawatts—enough to power 3.8 million homes."[27]

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[25] Personal communication, Lucia Patterson, Nevada Division of Minerals, GIS/Field Specialist, Geologist.

[26] Hardrock Mining on Federal Lands, *op cit*.

[27] https://www.nature.org/en-us/what-we-do/our-priorities/tackle-climate-change/climate-change-stories/nevada-west-virginia-solar-energy-former-mines/.

Question 6. H.R. 7580 adds two more permitting requirements in Title III to a process that already has significant overlap and can take around two decades. Will these new proposed permits duplicate existing requirements? Will the new proposed permits create more bureaucratic delays?

Answer. H.R. 7580 Section 303 creates a new Exploration Permit; Section 304 creates a new Operations Permit. It is unclear whether the Title III permitting processes in H.R. 7580 would be in addition to the comprehensive and effective BLM, USFS, and state regulatory requirements and permitting processes that currently govern mineral exploration and development or would replace these processes. Either way, the Title III permitting processes will make mineral projects much more difficult—if not impossible—to permit.

The problems associated with these Title III permitting requirements extend far beyond creating more bureaucratic delays because these sections include a number of impractical and unworkable requirements and standards that are designed to make mine permitting impossible. The Section 111 Sacred Places criteria and the Section 112 suitability criteria strongly influence both the Section 303 and 304 permitting processes and will put many more federal land areas off limits to mining.

As discussed in Section X of my May 12, 2022 written testimony, the suitability determination provision in Title I, Section 112 gives the Secretary a mine veto without any attempt to balance the need for minerals and other uses of public lands as is currently mandated under Section 102(a)(12) of the Federal Land Policy and Management Act of 1976, 43 U.S.C. §§ 1701 *et seq* (FLPMA). The laundry list of "Special Characteristics" that would make lands unsuitable for mining under H.R. 7580 will put broad swaths of land off-limits to mineral development. Widespread site characteristics including the presence of water resources and aquifers, lands eligible for the National Register of Historic Places, lands with critical habitat, and the "adjacent lands" buffer zone in Title I, Section 112, will be used to withdraw large blocks of land from mining. Even more problematic is the vague, catch-all provision in Section 112(b)(2)(F) that provides discretionary authority to the Secretary of the Interior and to the Secretary of Agriculture to designate "the presence of other resource values as the Secretary concerned may by rule specify, determined based upon field testing, evaluation, or credible information that verifies such values."

Title 1, Section 112 should be considered in the context of existing laws that have withdrawn over 400 million acres of land from mineral entry.[28] As a starting point, mineral entry on federally administered lands is only allowed in nineteen (19) states. Vast areas of federal lands have been withdrawn from mineral entry for National Parks; National Monuments; Indian reservations; reclamation projects under the Bureau of Reclamation; Military reservations; scientific testing areas; wildlife protection areas managed by the U.S. Fish and Wildlife Service; lands designated by Congress as part of the National Wilderness Preservation System; lands designated as a wild portion of a Wild and Scenic River; and lands withdrawn by Congress for study as a Wild and Scenic River.

Another very problematic aspect of the Section 303 and 304 permitting processes is that mineral projects will have to comply with the new and unrealistic undue degradation standard. As discussed in Section X of my written testimony for the May 12, 2022 hearing, H.R. 7580 eliminates the undue and unnecessary degradation (UUD) environmental protection mandate in FLPMA Section 302(b) and replaces it with "undue degradation" (UD) for hardrock mineral projects, which would prohibit degradation that is necessary in order to mine. Because mining cannot occur without causing some unavoidable changes to the land due to excavating pits, storing mine wastes, and building other facilities, eliminating the concept of necessary impacts from UUD and changing it to UD makes mining impossible if future BLM regulators have the discretionary authority to deem unavoidable and therefore necessary impacts undue. This impossible-to-achieve standard, which could be applied at any point during the permitting process, is clearly designed to eliminate future mining on federal lands. Section 301 of H.R. 7580 makes similar changes to the current environmental performance standard for mineral activities on National Forest System lands.

The Title III environmental standards and permitting processes creates a complex regulatory review that adds another layer of bureaucracy designed to make mineral projects more difficult to permit and develop. Taken together, Sections 111, 112, 303, and 304 will advance the overarching purpose of H.R. 7580 to discourage and prevent mineral activities on federal lands.

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[28] John D. Leshy, *America's Public Lands—A Look Back and Ahead*, 67th Annual Rocky Mountain Mineral Law Institute, July 19, 2021.

Question 7. Will this be the first time the Mining Law has been amended in 150 years?

Answer. Congress has amended the Mining Law many times since it was enacted in 1872. However, in stark contrast to the wholesale gutting of Mining Law rights proposed in H.R. 7580, all previously enacted amendments to the Mining Law carefully preserved claim owners' Mining Law property rights. Table 1 summarizes some of the laws that have amended the Mining Law and preserved Mining Law property rights.

Table 1

Amendments to the Mining Law that Change Rights Under the Mining Law While Still Preserving Mining Law Rights

Laws Amending the Mining Law	Preservation of Mining Law Property Rights
1910: 43 U.S.C. Section 142—The 1910 Pickett Act, which FLPMA repealed in 1976	bona fide occupants or claimants in ''diligent prosecution of work leading to'' discovery not to be affected by withdrawal order ''so long as such occupant or claimant shall continue diligent prosecution of said work''
1920: 30 U.S.C. Sections 181 *et seq*—The Minerals Leasing Act, (MLA) Section 37 Savings Clause	''. . .[D]eposits of coal, phosphate, sodium, oil, oil shale, and gas, herein referred to, in lands valuable for such minerals . . . shall be subject to disposition only in the form and manner provided in this Act, *except as to valid claims existent at date of the passage of this Act and thereafter maintained in compliance with the laws under which initiated, which claims may be perfected under such laws, including discovery*.'' (emphasis added)
1955: 30 U.S.C. Section 612—The 1955 Surface Use Act	§ 612. Unpatented mining claims (a) Prospecting, mining or processing operations ''Any mining claim hereafter located under the mining laws of the United States shall not be used, prior to issuance of patent therefor, for any purposes other than prospecting, mining or processing operations and uses reasonably incident thereto.'' (b) Reservations in the United States to use of the surface and surface resources Rights under any mining claim hereafter located under the mining laws of the United States shall be subject, prior to issuance of patent therefor, to the right of the United States to manage and dispose of the vegetative surface resources thereof and to manage other surface resources thereof (except mineral deposits subject to location under the mining laws of the United States). Any such mining claim shall also be subject, prior to issuance of patent therefor, to the right of the United States, its permittees, and licensees, to use so much of the surface thereof as may be necessary for such purposes or for access to adjacent land: *Provided, however*, That any use of the surface of any such mining claim by the United States, its permittees or licensees, shall be such as not to endanger or materially interfere with prospecting, mining or processing operations or uses reasonably incident thereto . . .''
1955: 30 U.S.C. Section 615—The 1955 Surface Use Act	''Nothing in this subchapter and sections 601 and 603 of this title shall be construed in any manner to limit or restrict or to authorize the limitation or restriction of any existing rights of any claimant under any valid mining claim heretofore located . . .
1955: 30 U.S.C. Section 624—The 1955 Mining Claims Rights Restoration Act applicable to power development reservations	''[N]othing in this chapter shall be construed to limit or restrict the rights of the owner or owners of any mining claim who are diligently working to make a discovery of valuable minerals at the time any future withdrawal or reservation for power development is made.''
1976: Federal Land Policy and Management Act, 43 U.S.C. Section 1701 *et seq*. (FLPMA)	''. . . no provision of . . . Section [302(b)] or any other section of this Act shall in any way . . . impair the rights of any locators or claims under that Act [the Mining Law of 1872] or, including, but not limited to, rights of ingress and egress.''

Laws Amending the Mining Law	Preservation of Mining Law Property Rights
1992: Claim Maintenance Fee Department of the Interior and Related Agencies Appropriations Act of 1993[29] and subsequent Department of the Interior appropriations bills	Unpatented mining claim owners must pay an annual rental fee that applies to all claims regardless of their life cycle stage or discovery status.

As shown in Table 1, there is a well-established legislative history of Congress enacting changes to the Mining Law. As discussed below, these amendments range from removing energy minerals from the Mining law and establishing a new law governing these commodities, restricting non-mining uses of unpatented claims and mill sites, establishing a mandatory claim recordation requirement, and charging an annual claim maintenance fee to keep claims in good standing.

Despite these significant changes, Congress has never amended the Mining Law in ways that would categorically extinguish claim owners' rights to use and occupy lands open to the Mining Law for mineral purposes. The provisions in H.R. 7580 to eliminate mining claims and charge a royalty on existing claims would be the first amendment that would fail to respect claim owners' Mining law property rights. H.R. 7580 is thus likely to subject the federal government and taxpayers to Fifth Amendment takings claims.

Some of the more significant amendments to the Mining Law and the ways in which the changes preserved Mining Law property rights are discussed below:

A. The Minerals Leasing Act of 1920

One of the most significant changes to the Mining Law occurred in 1920 when Congress enacted the Minerals Leasing Act (MLA), which removed oil, gas, oil shale, and other non-metalliferous minerals from the Mining Law and established a leasing and royalty system for future development of these resources. The MLA's Section 37 savings clause eliminated Fifth Amendment takings concerns by exempting preexisting unpatented mining claims from the new leasing and royalty system. The MLA is the only major amendment to the Mining Law that substantively changed the claims interest structure for mineral deposits on public lands into a leasehold process. However, the MLA did not include a blanket mandatory conversion of then existing claims into leases—in marked contrast to the mandatory leasing provision in H.R. 7580. Rather, in 1920, Congress surgically amended the Mining Law to preserve the Mining Law property rights associated with all properly maintained claims for oil, gas, oil shale, etc. in existence on the date of enactment, thereby avoiding protracted litigation and costly Constitutional "takings" claims.

If Congress determines that a future leasing system is appropriate for hardrock minerals, it should replicate what Congress did in the 1920 MLA and enact a savings clause modeled after the MLA Section 37 savings clause that exempted all existing claims from the new leasing system and royalty, and grandfathered their status under the Mining Law in order to preserve the Mining Law property rights associated with these mining claims. However, as discussed in Section I, the significant geological differences between oil, gas, coal, and other bedded sedimentary deposits compared to hardrock minerals makes the H.R. 7580 leasing system impractical for hardrock minerals. Preserving the self-initiated claims system is a far superior way to optimize the likelihood of discovering and developing hardrock minerals.

B. The Federal Land Policy and Management Act of 1976

Section 314 of FLPMA established new claim recordation requirements that substantially changed the Mining Law by requiring claim owners with claims located prior to FLPMA's enactment date to record their mining claims and sites within three years to keep their claims and sites in good standing. FLPMA's claim recordation requirements and deadlines conditioned the rights under the Mining Law by creating a new obligation for claim and mill site owners and a process by which the federal government could void stale mining claims and determine where active claims and mill sites were located.

However, the FLPMA claim recordation requirement did not terminate or in any way diminish the rights of claim owners who complied with the new Section 314 recordation requirements and deadlines. Unlike the H.R. 7580 mandate to convert mining claims to minerals leases, FLPMA's Section 314 recordation requirements

[29] Pub. L. 102-381, 106 Stat. 1374 (1992).

fully protected claim owners' property rights to their mining claims and mill and tunnel sites through compliance with the Section 314 recordation requirements. By establishing a three-year transition period in FLPMA Section 314, and applying the recordation requirements to all claims and sites regardless of whether they covered lands with a valuable mineral deposit or lands being used for mill site purposes, Congress avoided costly Constitutional takings claims.

Additionally, the FLPMA Section 314 claim recordation requirement applied to all mining claims regardless of their discovery status. All claims had to be recorded whether they were being actively mined or whether they were located at early exploration-stage projects where minerals had not been discovered. This stands in marked contrast to the provision in Section 304 of H.R. 7580 which seeks to limit mining permits to claims with a discovery of a valuable mineral deposit and requires a Right of Way for ancillary facilities.

C. The Claim Maintenance Fee

The claim maintenance fee that Congress enacted in 1992 is the most recent Congressional action affecting the Mining Law. This new fee recognizes claim owner's rights associated with mining claims and sites so long as the annual fee is timely paid. Payment of this fee secures claim owners' rights to use and occupy their mining claims and sites during the claims fee year, subject to compliance with the applicable surface management regulations (e.g., the 43 C.F.R. Subpart 3809 regulations for BLM-administered lands and the 36 C.F.R. Part 228 Subpart A regulations for National Forest System lands), and all other applicable state and federal environmental protection regulations. When initially enacted in 1992, the annual claim maintenance fee was $100 per claim. The claim maintenance fee amount is indexed to the Consumer Price Index and adjusted accordingly every five years. The current claim maintenance fee is $165 per claim.[30] In FY 2020, BLM collected over $69.4 million in claim maintenance and other Mining Law holding fees.[31]

The claim maintenance fee requirement applies to all claims regardless of their discovery status. The fee must be paid for claims with a minerals discovery that is being actively mined as well as to claims where exploration has not yet successfully discovered a mineral deposit, and even to claims where exploration work has not yet started.

D. Environmental Protection Statutes

BLM's 43 CFR Part 3809 surface management regulations for locatable minerals and the Forest Services' 36 CFR Subpart 228A surface management regulations require compliance with all applicable federal environmental laws and regulations. Therefore, numerous federal environmental laws functionally amend the Mining Law. Project proponents must demonstrate their proposed mineral exploration and mining projects comply with the Clean Air Act, the Clean Water Act, the Endangered Species Act, and the many other federal environmental laws listed in Table 2. Thus, as a practical matter, the environmental performance standards and permit limits enforced under these environmental protection laws condition claim owners' rights under the Mining Law to use and occupy public lands for mineral purposes. State laws also govern mining operations and, to the extent that a given state requirement is more stringent than a federal counter-part requirement, the mining operation must meet the more restrictive state law.

[30] https://www.blm.gov/programs/energy-and-minerals/mining-and-minerals/locatable-minerals/mining-claims/fees.

[31] https://www.blm.gov/sites/blm.gov/files/docs/2021-08/PublicLandStatistics2020.pdf, Table 3-32, Page 158.

Table 2

Chronology of Enactment of Federal Environmental Protection Laws

Decade Enacted	Partial List of Federal Environmental Laws
1960s	National Historic Preservation Act Air Quality Act National Environmental Policy Act Wilderness Act Solid Waste Disposal Act
1970s	Federal Water Pollution Control Act Amendments Clean Air Act Clean Water Act Endangered Species Act Marine Protection, Research and Sanctuaries Act Federal Land Management and Policy Act Uranium Mill Tailings Radiation Control Act Safe Drinking Water Act Resource Conservation and Recovery Act Toxic Substances Control Act Magnuson-Stevens Fishery Conservation and Management Act
1980s	Safe Drinking Water Act Amendments of 1986 Comprehensive Environmental Response, Compensation, and Liability Act Superfund Amendments and Reauthorization Act Archaeological Resources Protection Act Emergency Planning and Community Right to Know Act Water Quality Act Amendments to the Clean Water Act
1990s	Oil Pollution Act Hazardous Waste and Solid Waste Amendments Act Clean Air Act Amendments Safe Drinking Water Act Amendments of 1996
2000s	Small Business Liability Relief and Brownfields Revitalization Act

Additionally, if Congress or states enact new environmental protection statutes or regulations in the future, the mandates in BLM's 43 CFR Part 3809 regulations and in the Forest Service's 36 CFR Subpart 228A regulations will be automatically updated to include any new requirements. Thus, the agencies' 3809 and 228A surface management regulations governing hardrock minerals are "living regulations" that are designed to evolve with time to incorporate any new environmental protection compliance requirements.

Conclusions

Despite its title, "The Clean Energy Minerals Reform Act," H.R. 7580 will not promote the development of domestic clean energy minerals to support the Biden Administration's goals to reduce carbon emissions, phase out fossil fuels, and shift to carbon-free energy systems. Although there would never be a right time to enact the draconian measures in H.R. 7580, this is an especially bad time to make radical changes to the Mining Law that will make mining clean energy minerals more difficult—if not impossible—and is diametrically at odds with the Administration's clean energy policies and objectives.

At best, H.R. 7580 reflects a profound lack of understanding of the laws and regulations governing modern mines which require mines to be built and operated with numerous environmental safeguards and substantial financial assurance, making U.S. mines the cleanest and safest in the world. To address this lack of understanding, the Women's Mining Coalition would like to offer to arrange mine tours and/or webinars for members of the Subcommittee and staff to showcase the environmental protection measures and technology at modern mining operations, the significant career opportunities for women at all levels in the mining industry, and the important role that mining plays in the economic and social wellbeing of the communities where mines are located. Because "seeing is believing" the suggested mine tours could play an important role in enhancing the tenor of future legislative dialogues about the Mining Law of 1872.

In 1993, the Women's Mining Coalition started working with the 103rd Congress on proposed legislation to amend the Mining Law. Many aspects of the Mining Law

debate have not changed much in the past thirty years. Just as we have since then, the Women's Mining Coalition stands ready to work with the 117th Congress on this issue of national importance. We truly appreciate the opportunity to testify at the May 12, 2022 hearing and to respond to the Questions for the Record discussed above.

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The following documents were submitted as supplements to Ms. Struhsacker's responses to questions submitted for the record. These documents are part of the hearing record and are being retained in the Committee's official files. The Supplemental Exhibits, along with the responses above, are available for viewing at:

https://docs.house.gov/meetings/II/II06/20220512/114700/HHRG-117-II06-20220512-QFR025.pdf

LIST OF EXHIBITS

Exhibit I—October 2021 Testimony of Mr. Rich Haddock, Senate Energy and Natural Resources Committee

Exhibit II—July 2021 Questions for the Record for the July 27, 2021 House Energy & Mineral Resources Subcommittee Hearing on "The Toxic Legacy of the Mining Law of 1872"

Mr. GRIJALVA. Thank you very much.

On that note, let me remind the witnesses that we are going to now begin the questioning process. Let me now turn and recognize the Ranking Member of the Full Committee, Mr. Westerman, for 5 minutes.

Sir.

Mr. WESTERMAN. Thank you, Mr. Chairman, and thank you to the witnesses. And Mr. Chairman, I apologize for not being here at the start of the meeting. I was testifying in another hearing.

Mr. GRIJALVA. Well, I just want to tell you that your designee has done a magnificent job——

Mr. WESTERMAN. I am sure she has done a much better job than——

Mr. GRIJALVA [continuing]. And I am going to miss her, Westerman, when she leaves.

[Laughter.]

Mr. WESTERMAN. I would like to submit my opening statement for the record.

Mr. GRIJALVA. So ordered.

[The prepared statement of Mr. Westerman follows:]

PREPARED STATEMENT OF THE HON. BRUCE WESTERMAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ARKANSAS

Thank you, Mr. Chairman, and thank you to the witnesses for being here today.

Today, we will consider H.R. 7580 to supposedly "reform" the Mining Law of 1872. Before I get to that, however, the administration made announcement yesterday that I must address—DOI is *canceling* the remaining lease sales in the 5-year offshore leasing plan, Lease Sales 258, 259, and 261.

I cannot express how terrible this decision is for the country, not to mention tone deaf, in light of gas prices hitting new record highs this week at $4.40 a gallon. This is yet another example of the Biden administration claiming to do all it can to relieve energy prices and other rising costs for Americans, but taking actions that will have the exact opposite effect.

We have seen this flawed, contradictory approach in the administration's mining policy as well. What we should be discussing today the *true* minerals problem—the alarming global shortage of hardrock resources needed for our future. We know that

demand for renewable energy, electric vehicles, battery storage, and other technologies will soon surpass the known supply of the minerals to build them.

So I am bewildered and disappointed when the Department of the Interior and many of my colleagues on the other side of the aisle take actions and support bills—like the bill we are discussing today—to kill some of the most promising mining projects in North America.

First, let's talk about "fair return" for the taxpayer, as my colleagues across the aisle say. There will be *no* return to the taxpayer if harmful bills like this are made law, and mining in the U.S. becomes too difficult and uneconomic to occur. Further, the idea that federal lands are somehow "given away" to operators is a myth. In addition to location fees and annual claim maintenance fees paid to maintain mineral rights, mining generates billions of dollars in federal, state, and local tax revenue and provides thousands of high-paying jobs throughout the West.

I have also heard comments about the mining industry not being regulated enough. The Mining Law itself is essentially a land tenure law, with an extensive network of environmental protection statutes and financial assurance requirements laid over it. Outside of the Mining Law, hardrock operations are subject to approximately three dozen environmental laws and regulations including NEPA, the Endangered Species Act, the Clean Water Act, the Clean Air Act, and the National Historic Preservation Act. The additional requirements in this bill would add no additional benefit to what already exists.

However, I am aware of the abandoned mine sites from operations before modern regulation. This is a significant problem that needs to be addressed. That said, if the true goal is remediation of these abandoned sites, assessing a high gross royalty and additional fees on current operators is not an effective way to do so. Instead, operators would likely move onto non-federal lands or even overseas, leaving the abandoned mine problem unsolved.

I believe my colleagues on both sides of the aisle and even the administration seem to share the same goal—responsibly acquiring the minerals our country needs. However, if we enact legislation or administrative policy that make mineral development too challenging or uncertain, the inevitable result is a total reliance on China and other nations to meet skyrocketing demand. I don't think that future is what anyone here wants. It is vital to keep that in mind as we consider H.R. 7580 today.

Thank you and I yield back.

Mr. WESTERMAN. Thank you.

I find it ironic that we are having a hearing on Mining Act reform. I do believe we all agree on one thing: there is a shortage of elements and metals and minerals, rare earths, in the United States. And we are dealing with a Majority who has already voted to take our best uranium deposits out of possible development that, in their failed Build Back Better plan, actually wanted to close down a copper mine that could produce 20 percent of the United States' demands for copper for the next 50 years. Also, we have an administration that has pulled the lease on the Twin Metals Project. So, this is something we definitely need to talk about, but I think we need to be talking about it in different terms.

And GAO has issued a report saying that the average permitting timeline takes about 2 years, but in reality we have observed that it often takes much longer. In fact, I have a chart right here that shows the process for approving new mining projects in the United States.

While they are unrolling that—and it might take a while—Ms. Struhsacker, how long does the average hardrock mine take to become active in the United States, from exploration to production? And why does it take so long?

Ms. STRUHSACKER. Thank you, Ranking Member Westerman. From first discovery to developing a mine, it can take as long as 20 years. And the reason for that is twofold.

One, hardrock minerals are very difficult to find, so it takes a while to explore for them, which is one of the reasons a lease will not work for us, because they are time limited. We need to be able to be on the ground for as long as it takes to explore for the minerals, discover them, and then put them into production. And other countries can do it in 2 to 3 years, using the same safeguards as we do here, and there is really no reason it needs to take that long. The NEPA process is the primary reason it takes so long, but that is not the source of our environmental protections. Our environmental protections come from the laws that apply to mines like other industries: the Clean Water Act, Clean Air Act, Endangered Species Act, and others.

Mr. WESTERMAN. This looks like something you would see on a comedy skit. But, unfortunately, it is the sad reality of what it takes to permit a mine in Nevada.

How would this bill affect the timeline going forward for mining projects? Would this get more simple, or would it get more complicated?

Ms. STRUHSACKER. I am afraid it would get much more complicated, and it wouldn't add any other increment of environmental protection. I mean, we already have comprehensive environmental protection. The EPA found that in a very intensive rulemaking in the 2016–2018 time frame.

Mr. WESTERMAN. So, we would have a lot of squeeze and not much juice out of this new law.

I have to move on. I wish we could talk more about that.

Mr. Chen, you mentioned building electric batteries in the United States, which is a great thing. We need to do more of that. Where are 80 percent of the world's batteries built today?

Mr. CHEN. Well, we source our cells from Asia, where most of the battery cells are produced today.

Mr. WESTERMAN. China. When you say Asia——

Mr. CHEN. China, Korea, Japan.

Mr. WESTERMAN. Right. So, when you build this battery plant, where are you going to get the lithium, the metals, the rare earths that are needed to build the batteries? Where will they come from?

Mr. CHEN. Well, that is why we are here today, to talk about where we can create additional source. We are currently looking, frankly, literally, around the world, and working with various suppliers and mineral resource extractors.

Mr. WESTERMAN. Would it surprise you to know that USGS says that we have all of the elements and minerals that we need right here in the United States?

Mr. CHEN. No, it would not. In fact, we are speaking to quite a few U.S. companies about resources in the United States. As an example, we are aware of, for example, lithium deposits both in the Southwest, as well as in North Carolina, and are in talks with certain companies about access to those sources.

Mr. WESTERMAN. We have huge lithium deposits in my district in South Arkansas, but there is also the hurdle of building a lithium refinery and processing it in the United States. How long do you think that would take? What are you projecting?

Mr. CHEN. That is a good question. We, as a car manufacturing company, do not get into the processing, but we are talking to suppliers about that.

Mr. WESTERMAN. It definitely affects your supply chain.

I wish we had more time. I am out, and I yield back.

Mr. GRIJALVA. Thank you, sir. The gentleman yields. I recognize Representative Dingell for 5 minutes.

Representative, you are recognized.

Mrs. DINGELL. Thank you, Mr. Chairman and to the Ranking Member for convening today's hearing, again, and to the panel, to these witnesses for their patience.

As you know, this issue really does matter. Domestic supply and production of critical minerals are fundamental to the automotive industry, the economic engine of my home state of Michigan. Electric vehicles, which are the future of the automotive industry, and it is where we are headed, are going to require substantially more minerals than a gas-powered car. And that is why addressing the critical minerals supply is fundamental to the clean energy economy, as well as the economic future of working Americans, not only in my district, but across the country.

So, Mr. Chen, we know that EVs are vital for achieving our climate goals, and we support a rapid deployment of them, but we want to make sure they are built responsibly. Can you tell us what Rivian is doing to lower the overall mineral demand for each of their trucks?

And is Rivian engaged in any efforts for battery and mineral recycling?

Mr. CHEN. Thank you for that question, Representative. Yes, Rivian is involved heavily in looking at the entire supply chain of electric vehicle batteries and the cells that we use in our products.

To respond directly to your question, we are looking not only at domestic supply from the get-go, we are also looking at recycling options. We have designed our batteries, for example, to be second-use batteries, or second-life batteries, right from the vehicle without any further modification. If you look at an electric vehicle battery, you have a useful life of 10-plus years. Once that battery capacity falls below roughly 70 percent, there is still adequate storage. And we are able to take those and actually put those into stationary storage applications for yet another decade. After that, we are looking at recycling and recapturing them.

Unlike our rivals in the internal combustion engine side, the batteries, precious metals aren't actually consumed during the use of that battery, during the recharge and charge cycles. We are actually able to extract those minerals, recycle them, and put them into new batteries for repurposing.

Mrs. DINGELL. Let me ask you this, then, in addition. What signals are you getting from shareholders about sourcing for critical minerals for your vehicles?

Mr. CHEN. More and more shareholders are recognizing the importance of supply chain and responsible supply chain. That is why we are here today to work with Congress, with this Committee to look at ways of structuring laws in the United States to help bring on domestic manufacturing, domestic supply chains, and responsible production overall.

Mrs. DINGELL. Mr. Chen, is Rivian a member of the Zero Emission Transportation Association?

And what is the industry outlook for supporting more responsible domestic mining?

Mr. CHEN. Yes, we are absolutely members of ZETA, and we are, as an industry, heading in the direction for more and more responsible production and manufacture. We signed on to the Global Climate Initiative, where we are working toward reaching zero emissions by, I believe it is, 2035. We continue to look at our supply chain and our own practices to reduce our carbon footprint and the use of our materials as much as possible.

One initiative we are particularly proud of is our Ocean Plastics Initiative, where we have diverted plastics going into the waste stream and have actually made them into durable totes and supply containers that are used in our factory for production. We have taken additional plastics, recycled them, and actually made them into panels for a number of our vehicles.

Mrs. DINGELL. Thank you for your testimony today.

I am going to yield back in a minute, Mr. Chairman, but I want to make this point to all of my colleagues, that I look forward to continuing to work with my colleagues on the issue of domestic production of critical minerals in a way that we can bring everybody together: the manufacturers, the environmentalists, the unions, the workers together. It is vital for America's economic competitiveness, our national security, and our environmental future.

So, I think this hearing is one of the more important ones we are doing right now. Thank you, Mr. Chairman. I yield back.

Mr. GRIJALVA. The lady yields. Let me recognize Mr. Fulcher.

Sir, you are recognized for 5 minutes.

Mr. FULCHER. Thank you, Mr. Chairman. A question for Ms. Struhsacker, please.

Ms. Struhsacker, the Stibnite Project you may be familiar with, that happens to be in my home state of Idaho, and that represents the largest reserve of antimony outside of Russia or China. And that mine is actually in a position to where it could move quite quickly if it had the permissions to do so.

This is a critical mineral, as you know. This is used in a broad base of applications: next generation utility-scale batteries, important military applications, munitions, infrared, semiconductors, wind turbines, all kinds of things. If this bill were enacted, can you tell me what kind of impacts you would foresee for that project and others like it?

Ms. STRUHSACKER. Thank you, Mr. Fulcher. I can't emphasize enough the importance of the Stibnite gold and antimony project as an important source of critical minerals.

If this bill were enacted, I am not sure that the project proponent, Perpetua Resources, would be able to justify the investment they are proposing to make of $1 billion to clean up that site, because they would have no security of tenure under the leasing system that is proposed in H.R. 7580.

Mr. FULCHER. Just as an FYI, my office was contacted, I believe, just yesterday, and there is interest through Defense Logistics Agency, DOD, and others specifically concerned about the stockpile of antimony. So, this is an interesting situation, where we have one

component of the Federal Government that is raising concerns and trying to put some urgency into the situation and another that is looking to potentially extend a timeline so that it can't be engaged.

But as you alluded to, there is some cleanup that comes with this project, and this would be done by private industry. I find it interesting that this was actually caused, if you will, by a World War II demand by the Federal Government, which led to the situation that they have right now. But here we have a private company looking to basically clean this up as a function of that. It looks like a win-win to me. Do you see it that way?

Ms. STRUHSACKER. Absolutely, Congressman. It is a win-win for American taxpayers that we have a company that is proposing to invest $1 billion of private-sector money to cleaning up what was an environmental problem that was created during World War II, when the Japanese blockaded the antimony source the country was using in China. So, we kind of see history repeating itself with Russia and Europe right now.

It is an extremely important project that demonstrates that reprocessing and remining of historic mine sites can be an important source of critical minerals, and that private-sector involvement in those sites can be a very effective way to clean up what was an abandoned mine. And we are very fortunate that Perpetua Resources is proposing to make that investment.

Mr. FULCHER. We are almost out of time, but are you familiar with any other examples where there has been a similar situation, where private industry has moved in and operators take on an environmental clean-up project?

Ms. STRUHSACKER. Modern mining is absolutely the best way to address historic problems at old, pre-regulation mining sites. Unfortunately, the liability issues associated with doing that chills people's ability to do that. So, we could enhance reclamation of these AML sites by enacting some Good Samaritan legislation.

Mr. FULCHER. Thank you, Ms. Struhsacker.

Mr. Chairman, I yield back.

Mr. GRIJALVA. Thank you very much, and the gentleman yields. Let me now recognize the Chair of the Oversight Subcommittee.

Representative Porter, you are recognized.

Ms. PORTER. Thank you very much, Mr. Chair.

Mr. Kalen, the Forest Service has repeatedly said that they can't say no to mining projects. What do you mean by that? What do they mean by that?

Mr. KALEN. Well, what they mean is that when you get a mining claim right now under the law, that is a possessory right. It is a property right. So, in order for the Forest Service to be able to say no, the argument from industry has always been that that would effectively take a property right away from the industry.

There are a lot of questions and legal issues about whether the Forest Service might have the authority to say no. But I think that is why there is need for reform, in order to be able to clarify what that authority really is.

Ms. PORTER. Does the mining law establish hardrock mining as the highest and best use of the land?

Mr. KALEN. What it does is—historically, it has been perceived by agency officials dating back to the early 1900s as effectively

evincing the highest and best use of the lands. So, while there is nothing specific in the law that says that, because of the way the operation of the law works, that is the way it has been treated historically. So, yes.

Ms. PORTER. Well, I think what we see from that is, when we have competing permits on public land, what we see the agency doing is something like this.

Like, say they have Project A, which is mining minerals on U.S. land to sell to competitor countries. And that has a pretty significant environmental harm, even if it is properly cleaned up. It is a big change to the environment. And Project B is solar panels on that same public land that would power a neighboring city. And, of course, there is still disruption to the land, there might still be environmental impacts.

But let's say they decide that the environmental harm is—under current Forest Service policy, the Bureau of Land Management, they tell us, the Forest Service, that they basically have to pick Project A. They have to pick the mining project, because they cite back to that highest and best use of the land.

So, we all think that we need to be doing more to develop appropriately as much U.S. mineral capacity as we can. But at the project-by-project level, we are just not seeing thoughtful, best-use decisions on each and every parcel. Sometimes the best use may be hardrock mining, and sometimes it may be a different project. But the way the law is currently set up doesn't get us to that, because of this 150-year-old law and the interpretations of that over time.

I want to turn to Mr. Chen. Thank you very much for being here. Rivian is headquartered, as you know, in my home district of Irvine, and I am grateful to your colleagues for showing me around. I wanted to ask you. What would reforming the Mining Law of 1872 do to improve Rivian's supply chain and their ability to create jobs here in the United States?

Mr. CHEN. Yes, I think reforming the Mining Law of 1872 would do a lot to help increase domestic supply of critical minerals.

Our CEO was recently quoted in *The Wall Street Journal* as mentioning that there is an upcoming supply shortage of cells, and that supply shortage traces back to those critical minerals. By reforming the mining laws of the United States, to take into account not only increased production but responsible increased production, we have an opportunity to lead the world in not only increasing our supply, but showing that this can be done in a responsible way.

Ms. PORTER. Thank you very much. Do you currently face supply chain issues relating to having to import minerals?

Mr. CHEN. Well, like the rest of the industry and the current economic factors, we do face challenges. We do believe—and again, our CEO was quoted recently, I think, as soon as yesterday in *The Wall Street Journal*—that we do see ourselves climbing our way out of the supply chain constraints.

That all said, the way to make sure that this is a long-term solution and not just a temporary one is to increase access to domestic mineral supplies.

Ms. PORTER. I love that answer about looking for long-term solutions, because I think too often Congress does not. We are

trying to solve yesterday's problem tomorrow. This was a problem that has been a long time in coming, as we have seen electric vehicle production and battery production ramp up. And it is time to act today to reform the mineral law so that we set ourselves up on a good path for the right kind of law that can facilitate our ability, as the United States, to manufacture electric vehicles here in the United States.

I know you are opening a new plant here, so I am really, really excited about being able to advance this law in a way that both protects the environment and encourages our business community.

Thank you so much, Mr. Chair. I yield back.

Mr. GRIJALVA. The gentlelady yields. Let me recognize Mr. Carl. Sir, you are recognized.

Mr. CARL. Thank you, Mr. Chair.

Ms. Stewsacker—did I pronounce that—did I get close?

Ms. STRUHSACKER. Close.

Mr. CARL. OK, I am sorry. How would you characterize the environmental protection in the United States, compared to other major producers of critical minerals in the world such as China?

Ms. STRUHSACKER. Congressman Carl, we have the cleanest and safest mines in the world, and it is important that we responsibly source the minerals that we need for the clean energy transition from environmentally responsible sources, and that is right here in the USA. Places like China and Russia, where there are very little environmental protections in place, there is slave labor used in some places.

So, our laws not only for protecting the environment, but also worker health and safety, are absolutely the world's best example. Other countries come to us when asking, "How do we protect the environment at our mines?"

Mr. CARL. Thank you. I got to go through the Iron Range in Minnesota, and I was just so impressed with what I saw out there. And, of course, we have the copper mining out there shut down, which that copper is now coming from China. So, I understand, we are kind of at a stalemate.

A second question: What would be the impact of imposing an 8 percent gross royalty on the existing mines?

And how would this impact the domestic industry and the needs for these materials like electric car companies?

Ms. STRUHSACKER. Oh, it would have a devastating impact if you were to impose a royalty on currently operating mines. And, in fact, we believe that that would probably expose the Federal Government to takings.

Putting a royalty like that on an existing operation, where there are many, many years of investment-backed expectations that have gone into the financial analysis of the economics of that mine would be totally disrupted by an 8 percent retroactive royalty, and it would probably make many of those mines uneconomic to continue to operate.

So, the outlook would be that mines would shut down, jobs would be lost, we would lose production of important, critical minerals, and we would become even more dependent.

Mr. CARL. Thank you, I appreciate that.

Mr. Chen, real quick, what recommendations have you and others in your industry made to the Administration to change our policy to ensure that we can acquire minerals that you need here in the United States?

What changes or recommendations have you made?

Mr. CHEN. Our recommendations are certainly to update the mining laws to catalyze new investment in responsibly sourced domestic mineral supply, as well as shoring up existing allies and trading partners to create new ones, like in Eastern Europe and the Pacific Rim.

So, our recommendation to the government has been an all-of-the-above approach, not only on the domestic side, but also with certain trading partners. We have also made recommendations outside the area of mining, as well, on workforce development and consumer-facing policies, as well.

Mr. CARL. So, with that said, what do you see as the biggest challenge to building a domestic minerals supply chain?

Mr. CHEN. I think currently there are several. One of those is availability. One of those is building not only the access to the critical minerals themselves, but the processing that goes along with all of that, as well. You don't just take lithium or cobalt or nickel and just throw them into batteries. There is an entire value chain that must be built up, an entire industry that must be built up to take advantage of that.

The challenge for us is not only the supply itself, but being able to have all the supporting infrastructure to get to that result. So, this is a long-term solution that starts with the minerals and starts with the access.

Mr. CARL. How far do you all project your business?

I mean, do you move from year to year, or are you looking 5 years out?

Mr. CHEN. We look not only year to year, 5 years out, 10 years out, we are looking 30 years out, as well.

Mr. CARL. Thank you. That is the point I am trying to make here. We have to start planning much further out than the next election. And that is the problem we are having here in Congress.

With that, Mr. Chairman, I turn it back to you. Thank you, sir.

Mr. GRIJALVA. Thank you, sir. Let me now recognize Mr. Moore.

Sir, you are recognized.

Mr. MOORE. Thank you, Chair.

Yes, I think that we would all agree that we get stuck in these 2-year election cycles for those in the House of Representatives. And our CEOs, our industry, and our private sector folks, you have to be thinking 30 years out. And we just make it virtually impossible for you to predict what environment it is going to be.

I am firmly committed—particularly Utah 1, my district, has one of the most dynamic, diverse workforces in the country, with different areas with mining and energy, but also tourism and conservation. We have to be more thoughtful about this.

Ms. Struhsacker, along those lines, I believe we all are, regardless of party, concerned about maintaining a healthy, safe environment. We are aware of abandoned hardrock mines from pre-regulation times. What protections are in place to ensure that

today's mines won't become tomorrow's environmental problem? Can you give me any thoughts on that?

[No response.]

Mr. MOORE. Ms. Struhsacker?

[Audio malfunction.]

Mr. MOORE. OK. Ms. Struhsacker, can you hear me?

We were having technical difficulties, I apologize. Let me just quickly ask a question—we are all concerned about a healthy, safe environment. What protections are in place to ensure that today's mines won't become tomorrow's environmental problem?

Ms. STRUHSACKER. Thank you. We have a whole host of Federal and State environmental laws and regulations that guarantee that today's mines are developed in a responsible manner that protects the environment. And the EPA took a very close look at this in 2018 and concluded that this regulatory framework provides comprehensive environmental protection, and also financial assurance.

For example, in Nevada, where I live, the State and Federal agencies have $3.4 billion in reclamation bond monies to guarantee today's mines will be responsibly reclaimed.

Mr. MOORE. Would you say that that review that was done in 2018 and what has been established is sufficient, with a forward-leaning outlook, so we are not just thinking about this year or next year, we are forward leaning?

And would any additional environmental protection provisions in this bill add any benefit?

Ms. STRUHSACKER. Thank you. The bill would add no incremental benefit in terms of protecting the environment.

And the way our environmental laws and regulations are set up for mining, they are already forward-looking because, in order to get a permit from the BLM or Forest Service, you have to demonstrate that the mine will comply with existing Federal and State regulatory requirements. So, it is a living regulation, if you want to look at it that way.

So, if there is an update to an air quality standard, or a water quality standard, or a new law that is put on the books, it is automatically included in part of the compliance requirements under the BLM's and the Forest Service's current regulations.

Mr. MOORE. So, it allows for it to be dynamic in nature, where you can continually update as we go. That is a point I wasn't fully aware of, either. So, that is good, that is great to hear.

We all agree that reclaiming abandoned mines is extremely important. What are some proposals to pay for it that won't necessarily discourage mining investments on Federal lands?

Ms. STRUHSACKER. Well, I think one of the best things you could do—and you could do it without changing the law—is to, through the appropriations process, designate that the mining claims fees that are in excess of what is required to administer the mining law program be earmarked for abandoned mine reclamation. Right now, those excess fees—and they are on the order of about $30 million a year—just vanish into the ether of the general treasury. If they were earmarked for abandoned mine reclamation, we could start building an AML reclamation fund right now.

Mr. MOORE. Are you familiar with the so-called Good Samaritan legislation that allows third parties to get involved in mine cleanup? And do you think industry is supportive of this idea?

Ms. STRUHSACKER. Yes. Since I have been working on this issue for the last 30 years, industry has been very supportive of a Good Samaritan law. And, yes, that is an important step forward in reclaiming more abandoned mines.

Mr. MOORE. I have seen from the Utah Mining Association groups that have been heavily involved in making sure that they leave the area better than they found it, I think they are always engaged in these types of good ideas that are productive solutions.

Thank you so much, and I yield back.

Mr. GRIJALVA. The gentleman yields. Now we recognize Mr. Tiffany.

Sir, you are recognized.

[Pause.]

Mr. GRIJALVA. He can't hear? We are having a technical issue. I apologize to the witnesses, but we are going to recess to fix the issue.

[Recess.]

Mr. GRIJALVA. Let me reconvene the meeting, and I appreciate the time from the witnesses. I had to go take care of this myself. I got into the fuse box, and I believe it is now functional.

[Laughter.]

Mr. GRIJALVA. Let me now recognize Mr. Tiffany for 5 minutes.

Sir, you are recognized.

Mr. TIFFANY. Well, thank you, Mr. Chairman. I appreciate it very much. And I am glad you had the fuses to get it done.

I would like to ask a question of Mr. Chen. Do you believe energy and mineral independence is important for America?

Mr. CHEN. Thank you for that question. Energy and mineral independence is not simply important, it is vital to the survival and leadership displayed by this country.

Mr. TIFFANY. Do you think it is ethical for us to be getting some of our, especially our mineral resources from countries that do not share our standards, as far as work standards, environmental standards, when we have those minerals right here in our country?

Mr. CHEN. That is a great question. And it is not. And it is, in fact, why Rivian has a robust supplier code of conduct and policies in place to ensure that wherever our suppliers are worldwide that we are ensuring that they adhere to the highest standards that we hold ourselves to.

Obviously, having a domestic supply chain and domestic suppliers would make enforcing those that much easier, and why it is so critical that we look at and reform our current mining laws.

Mr. TIFFANY. That America look at and reform its mining laws?

Mr. CHEN. Yes, that the United States look at reforming and modernizing our laws to ensure that we are taking into account all the factors that I mentioned during my opening remarks about ensuring critical mineral supplies, but also ensuring protection of our bedrock environmental laws, protecting our sacred spaces, and ensuring that we are consulting with local and rural communities and the tribes.

Mr. TIFFANY. Do you source any of your materials from China?

Mr. CHEN. Yes, we do. I don't have the specific figures, but some of our components and resources do come from suppliers in China.

Mr. TIFFANY. Can you assure us today on this panel that none of your products——

[Audio malfunction.]

Mr. CHEN. I am sorry, Congressman, you broke up during the feed. I didn't hear the entire question.

Mr. TIFFANY. Can you assure those of us on the panel that none of your products, your sourcing, are coming from slave labor in China?

Mr. CHEN. We actually do have a robust anti-slave labor policy that we push out to all of our suppliers. And we have mechanisms in place to audit them to ensure that this is not the case.

Mr. TIFFANY. Do you think the NEPA process should be streamlined to protect environmental standards, but to end this process of taking 10, 20 years to get permits completed that companies are doing in a responsible manner?

Mr. CHEN. We agree that the use of the NEPA process is important, but certainly that there are ways we should and could improve and streamline that process without compromising environmental protections or other issues that are important to the United States.

Mr. TIFFANY. Thank you for your answers.

We are really receiving conflicting messages from the Biden administration here in rural America. I just got a note yesterday. While President Biden is talking about let's do some subsidies for fertilizer, things like that in agriculture, and encouraging agricultural production because we are seeing food shortages at this point, in the meantime they are advancing the CRP program, which takes agricultural land out of production. Very conflicting.

We are seeing the same thing with mining, where we see these conflicting messages. And the unfortunate part is those that seek to curtail production seem to be winning. Ms. Struhsacker, is this accurate, that it appears those that are opposed to natural resources utilization actually have the upper hand in the current administration?

Ms. STRUHSACKER. Mr. Tiffany, unfortunately, I believe that is the case. I mean, I think you look at H.R. 7580, it is designed to curtail mining on Federal land. So, there is a real mixed message here about the need for domestic minerals and strengthening our supply chains, and yet an initiative like this that is absolutely counter-opposed to that.

I would also like to say that the interagency working group that Dr. Feldgus described in the first panel is a very important opportunity for numerous stakeholders to come together to see if there are some things that we could fine-tune in the current process. But H.R. 7580 is not the answer.

Mr. TIFFANY. Thank you for your answer.

What we are seeing is American weakness. And the problems that we have here in America, whether it is inflation, the border crisis that is going on, crime at record levels in cities across America, all these things, energy and mineral independence, they are all real easy to fix. It is unfortunate that committees like this are not advancing proposals, as cited by Ms. Struhsacker just in

the last minute here, that we don't have things that could actually turn this around.

All I can say is, to Americans out there, the solutions are simple, but the current Congress leadership is not bringing those solutions to us Americans.

I yield back, Mr. Chairman.

Mr. GRIJALVA. The gentleman yields.

Ms. Herrell, you are recognized for 5 minutes.

Ms. HERRELL. Thank you, Mr. Chairman. And I am so thankful for your technical skills. But next time thermostat skills. It is getting cold in here.

Mr. GRIJALVA. I know, it was an offset. When I moved the one—never mind.

[Laughter.]

Ms. HERRELL. Thank you. Anyway, I do want to say one thing about my colleague from California who had the chart up earlier. The Chart A, mining; Chart B, solar—but there was concern about Chart A getting the priority. But the clear and concise answer needs to be—and I think we all get this—you cannot have B without A. You cannot have solar, you cannot have these green projects without critical minerals. And I just want to make sure we are very clear on that.

But with that, I do have a question for Ms. Struhsacker.

Federal oil, gas, and coal all operate in the United States with a 12.5 percent royalty. Why shouldn't hardrock mining have the same rate? What would that look like?

Ms. STRUHSACKER. Thank you very much for that question. You can't just cookie cutter a royalty system that was designed for oil and gas and superimpose it upon a completely different industry, which is hardrock mining.

I have—and I was hoping to be able to pass this around during the hearing—this is a picture of high-grade gold and silver ore from a mine in Nevada. There is no valuation for this rock. In order for the products, the gold and silver, to be liberated from this rock, we have to grind it. We have to crush it. We have to leach it. We have to do many things. And that has to be part of the consideration in a structure for a royalty.

In contrast, there is a market for crude oil. Basically, as it comes right out of the ground, you can find it in *The Wall Street Journal*, a per-barrel price per day. There is no price or valuation for this crude ore. That is why you can't simply use what is in place for oil and gas and put it on to a completely different industry.

Ms. HERRELL. Right. So, what kind of return to the taxpayer should we expect if a high royalty rate were suddenly put on the operators?

Ms. STRUHSACKER. I think what you would find is most mines, or many mines, would become uneconomic. So, you would have a royalty of zero from a mine that can't be in production because the royalty is too high to make it profitable. So, you would lose jobs, so you lose tax revenue, and certainly we would lose mineral production, making us even more reliant on foreign sources for minerals.

Ms. HERRELL. All right, thank you. And I wanted to follow up with Mr. Chen on a question that he just answered for

Congressman Tiffany as it relates to child slave labor. I know that if Pete Stauber were sitting here today, that would absolutely be a question he would ask.

And you mentioned that you have policies in place or an audit process in place. Who actually can perform those audits, especially in countries like China? How do you have the capability to perform those audits, to have that access, if you will, to their mines?

Mr. CHEN. Well, we actually work with our first-tier suppliers and our second-tier suppliers to provide them the standards that we expect them to adhere to, and do this under contract. And part of those contracts include the ability to have audits.

We would often use third-party auditors to do that, but then we would also push down for suppliers onto them the obligation to provide us reports from auditors that they may choose to be able to review their practices.

Ms. HERRELL. But, I mean, can you honestly guarantee to the American consumer that there is absolutely no child labor being used to produce the minerals necessary for these batteries, without hesitation?

Mr. CHEN. We are using all of the best tools possible and commercially available to us to ensure that that is the case——

Ms. HERRELL. But wait, I mean, just yes or no, can you 100 percent assure the American consumer that none of these batteries are being produced by child slave labor?

Mr. CHEN. Again, we are using the best available tools to us to ensure that that is not the case.

Ms. HERRELL. But that is a no, because you can't for sure guarantee, but that is OK. I do appreciate the fact that you are looking for long-term solutions, because my question was—and I think you already kind of alluded to this—with so many now opportunities to go green, and so much competition for our minerals, my problem is, or my question is, do you concern yourself with the availability or the stability of minerals being available because of all the pull now for whether it is for windmills or for other green products?

I am just wondering how concerning is that to you, in terms of your projections? I know you said earlier you are looking out for 30-year projections on some of your products.

Mr. CHEN. Yes, that is exactly why we are here today testifying on an area that is not directly tied to electric vehicle manufacturing, but is further on down the supply chain. It is absolutely critical for us as we do our long-term planning to be able to find a diversified source of critical minerals for our suppliers and for us.

Ms. HERRELL. Yes. And just one more question. How much does one of these trucks cost?

Mr. CHEN. The R1T starts at $67,500 and goes up there, depending on how you option it.

Ms. HERRELL. Awesome. Thank you.

Mr. CHEN. Yes.

Ms. HERRELL. I went a little bit over, but thank you.

Mr. GRIJALVA. No, thank you. I thank the Ranking Member. Let me recognize myself.

President Stiffarm, thank you very much for the discussion on the cultural significance of the Little Rockies to your people, and

what the threat of mining means to your cultural heritage and the history.

Part of the discussion has been about—that was damage done then, but we are moving into a new era. And if nothing changes, Mr. President, and we acknowledge that there has to be collateral damage of some sort in this process if nothing changes, then do you think that, in terms of the tribe, in terms of sacred sites, and in terms of other issues, what does good-faith tribal consultation look like in relationship to what is going on with mining and the role that the tribes such as yourself need to play? Or are we still talking about collateral damage?

Mr. STIFFARM. Thank you, Mr. Chairman, for that question.

Good-faith consultation to the tribes means at least being at the table. What happened with Pegasus and Zortman Landusky mining left behind almost happened again here this past year, when another mining permit was allowed to another mining company called Blue Arc without consulting the tribes. The state DEQ and the BLM never consulted us. The only way the tribes found out about this is that we read about it in the newspaper. And then, once we found out about it, we filed a lawsuit.

And it is just a lack of communication. Like I said in my opening remarks, tribes, or our first peoples of this country, are second-class citizens to most people. They don't care, they brush us aside. But they seem to forget this was our land first, and we will fight for it. And we believe everything in our culture is living, including the mountains, the rocks, the grass, everything. And that is how we believe. And we will always believe that. Thank you.

Mr. GRIJALVA. There is a legacy in Indian Country of collateral damage, and in rural America to a great extent. And that collateral damage, whether you are talking about the situation President Stiffarm brought to us today or the countless other examples of where tribes have been left out of the process—and now we have an issue where we have a contested and controversial decision in front of agencies that really have no power to control any of the other parts of it, and I think that is the point of the law.

But let me ask Professor Kalen. What are the biggest loopholes in the mining laws that exist that hurt public lands?

Mr. KALEN. I think there are a whole bunch of loopholes, unfortunately.

No. 1 is that it doesn't return any value to the United States if it is a claim and location and entry system.

No. 2, there is a lack of clarity on how the mining actually operates today with the use of things like mill sites. So, there is actually a need to be able to clarify some aspects of the mining law that are anachronistic.

I think another sort of problem is that there needs to be better enforcement, there needs to be better bonding, and then going on to financial assurances, there needs to be better mechanisms for financial assurance, as well. The Trump administration did decide that there was no need to change the law or change the regulations. It actually flipped what the prior administration had actually said. So, initially, they did determine that they needed to have financial assurances, but that was then flipped during the Trump administration.

The other thing is we don't have really good abandoned mine reclamation fund operations, so we need to sort of fix that loophole.

And, finally, as you noted, there needs to be a better mechanism to deal with the selection of what we are going to be doing on the public lands. I think the critical way, in terms of facilitating critical minerals, is going to be involving everybody through a land planning process. So, if you were to use and employ a land management planning process to decide what to do with the lands, involve Tribal Nations and Indigenous people early on, you would probably avoid a lot of the conflicts later on. You would probably be able to get a better social license to operate at a community, and you would probably facilitate, if you will, the ability to mine with much more certainty than the mining industry has today.

Mr. GRIJALVA. Thank you.

And Ms. Herrell, I am going to extend my time and return the courtesy to yourself or any Member that wishes for additional time, if that is OK. Thank you.

Do you think that updating this 1872 law is going to lead to fewer conflicts between mining companies, local communities, and the conflicts that we have around sacred sites and tribes? Do you think updating, reforming this law will lead to less of that, Mr. Kalen?

Mr. KALEN. I think the answer is yes, because if you update it, then what you can do is you can begin to have a planning process that involves the Tribal Nations, that involves the Indigenous communities, that involves, as I said, local communities. And if the law were updated and actually utilized the land management planning process to make some of these decisions, you would have earlier efforts to try to figure out how to reach an accommodation by both the industry and all those affected in the local community, including the Tribal Nations and Indigenous people.

So, I think there is a lot of that opportunity with reform. Thank you.

Mr. GRIJALVA. Thank you.

And if I may, Ms. Struhsacker, one question. I don't think there is any disagreement on any side of the aisle here regarding human rights issues—slavery, child labor that we find in other parts of the world: Central Africa, South Africa, parts of Latin America, Peru, Brazil in particular, parts of Central America, and parts of Asia. And the American people expect the high standards, and we should have the high standards. I don't think that is a fair comparison. But you are right. The issue of human rights and environmental rights is important, and we do a better job. I don't question that.

What I do question is—do you feel that if there is a multinational company doing business in Peru with a horrendous track record on human rights violations, do you believe that they should still have access to Federal domestic public lands, given their track record of abuse elsewhere, and being restrained from that abuse here in the United States by existing law?

Do you feel that they should be banned from doing business on public land, based on a human rights record?

Ms. STRUHSACKER. Chairman Grijalva, I believe that today's mind-frame with the investor pressure for environmental, social, and governance, the ESG initiatives that are forefront of the mind

of the investment community really make that situation hypothetical.

For a company to be able to come and operate in the United States, they have to be able to gain a social license, and they have to be able to demonstrate to the stakeholders—and that is a broad sector of the community, tribal communities—and their shareholders that they are responsible corporate entities.

Mr. GRIJALVA. OK, hypothetically, if Rio Tinto Multi-national Mining Corporation has a couple of problems in Africa, has a couple of problems in Australia, in terms of other issues in Peru or Chile, and they want to do business on public land, and have a permit, do we continue to honor that, given that that is a verifiable public record with existing human rights violations?

Ms. STRUHSACKER. Thank you, Mr. Chairman. I think you have to view everything in a very site-specific and situation-specific consequence.

Again, I believe that companies——

Mr. GRIJALVA. So, a track record of human rights violations, worker violations is not sufficient to create a ban?

Ms. STRUHSACKER. Again, I don't believe that that would be allowable here. And companies have to be able to earn a social license. And if their track record does not allow them to do that, then I believe the system will respond to that.

Mr. GRIJALVA. Thank you. And maybe that is an addition we need to look at specifically within the legislation that we are proposing, because I think, down the road, that has to be part of the criteria.

If we are opening up and deregulating, as many are asking for, and not dealing with reform at the very fundamental level, and not dealing with royalties, and at $30 million a year it will take another 150—we will be doing the 300th anniversary of the Law of 1872—for us to get at the lowball estimate of $50 billion to clean up abandoned and orphaned mines across particularly the Southwest and other parts of this country.

But with that, let me now turn to Mr. Lamborn for his 5 minutes and recognize you. And you have additional time if you so choose, Mr. Lamborn. Thank you.

Mr. LAMBORN. Thank you, Mr. Chairman. And I would like to help answer your next-to-last question.

If this law took effect, we would have fewer conflicts, because we would have a lot less mining going on in this country. And with less mining, there would be less conflicts.

Ms. Struhsacker, I would like to ask you a couple of questions about the taxation and royalties. For those who do not understand, what is the difference between a net tax and a gross tax?

Ms. STRUHSACKER. Thank you, Congressman. A net tax allows the producer to subtract the cost of making a sellable product, a marketable product, before the royalty is imposed. And a gross tax does not allow that at all. There are very few deductions allowable in a gross tax.

So, comparing oil and gas again, oil is pretty well marketable as crude oil, right as it comes out of the ground from the wellhead. And in contrast, hardrock mining operations, like this rock shows, you have to do a lot of work and invest in processing facilities that

can cost upwards of $1 billion before you can extract the gold and silver from that rock and have a marketable product.

So, a net royalty allows you to make deductions for the cost to extract the gold and silver from this rock, and a gross royalty wouldn't. And you would end up paying on something that is not profits. I mean, we support a royalty that is a fair royalty on our profits, but not on the totality of the investment in the project.

Mr. LAMBORN. Thank you, I appreciate that answer.

And, also, people don't have a crystal ball. They don't know what future economic cycles are going to be. Sometimes minerals go in volatile ups and downs. They have volatile swings in their price. So, what might be profitable at one price would be breaking even at a lower price, and losing money at an even lower price. And you will drive them out of business, won't you, if you are taxing on the gross revenues, as opposed to the net revenues, would you agree with that?

Ms. STRUHSACKER. Yes, that is an important point. A net royalty allows both the taxpayer and the mineral producer to go to the bank together, which means when mineral prices are high, then the net royalty payments are very high. When mineral prices fall, then, obviously, the royalty payments aren't as big, but it doesn't put a mine out of business. And you preserve the jobs, you preserve a revenue stream there.

A gross royalty is very insensitive to prices, and it ignores the fact that your cost to get the gold out of this rock are fixed costs. And a gross royalty is very punitive in periods of low mineral prices.

Mr. LAMBORN. So, the way this bill is structured, with a royalty on gross revenues in combination with a dirt tax, which I have not really seen before, what would that do to prospective mining operations?

Would any even go forward under what I consider onerous conditions?

Ms. STRUHSACKER. Thank you, Congressman. I think the investment in the U.S. mining industry would decline even more dramatically under the gross royalty and the dirt tax provisions in this bill. It would have a devastating effect. And, ultimately, we will become even more and more reliant on foreign sources for minerals.

Mr. LAMBORN. I won't accuse this bill of being intended to drive mining out of business, but I think it would certainly have that effect, whether it is intended or not. Would you agree with that?

Ms. STRUHSACKER. Absolutely. This is not the bill—there would never be, in my opinion, the right time for this bill. But this is an especially bad time for this bill, when we are staring in the face of a mineral availability crisis.

Mr. LAMBORN. And then what would happen to the cost of consumer goods, like electric vehicles or cell phones or computers, if the minerals couldn't be produced in this country, and we had to look for foreign sources, especially China?

Ms. STRUHSACKER. I think the cost would inevitably go up, because not only would we have to be importing these minerals, it would exacerbate the shortage of minerals that we are already facing, as we heard from Mr. Chen. So, availability of the raw

materials to build products would be constrained and cause prices to rise.

Mr. LAMBORN. And what disadvantages do we face when it comes to looking at China as a supplier of raw materials, or refined materials, for that matter, that we are not able to produce in this country because of stringent environmental laws or taxation? What does that do to our national security?

Ms. STRUHSACKER. Oh, it is very scary, what it does to our national security. As Chairman Manchin said on the Senate side 6 weeks ago or so, Russia and China are poised to weaponize critical minerals against us. And we have seen what that has done to Europe. Europe was inappropriately reliant on Russian oil and gas. And we have seen, unfortunately, with the tragedy of the war in Ukraine, what that can do to national security. It is a very alarming situation.

Mr. LAMBORN. And let me ask you this, because I have just a little bit of time left. Why is the mining claims system beneficial compared to leasing?

Ms. STRUHSACKER. It is beneficial because we don't know where hardrock minerals are located. That is very different than the situation for oil and gas, which is a much more abundant resource, and they occur in well-understood, big sedimentary basins. We have to look very hard. There is a 1 in 1,000 chance of discovering a mineral deposit that can become a mine. And the claim system works beautifully for that, because it allows geologists to stay on the land long enough to make that discovery.

And I want to make the point that this is a system that has worked well. There is nothing wrong with it. And the BLM already tracks where claims are located. So, even though we have self-initiation and can go where our geologic nose leads us based on our drill hole data, the BLM knows where each claim is located. You have to record a claim with the BLM in order to make it a valid claim, and you have to pay a fee.

Initially, each claim costs $225 per claim to establish.

Mr. LAMBORN. And seeing that I have still a little bit of time to equalize things, I hear references to the Mining Law of 1872, 150 years old. And it is sometimes, I think, understood by people who are new to this subject that this law is antiquated and anachronous and has never been modified or changed.

What are changes that our country has made to mining and environmental laws surrounding mining in the last 150 years that I think seriously and dramatically amend the 1872 law?

Ms. STRUHSACKER. You are absolutely right, Congressman. Every single environmental law that applies to other industries applies to the mining industry. Keep in mind that our environmental regulations and laws are relatively new in this country. They started being enacted in the very late 1960s and 1970s through the 1980s. Those all apply to mining. And the mining law itself has been amended many times.

The Federal Land Policy and Management Act of 1976 was one of the more important amendments to the mining law, and it inserted in the mining law an environmental performance standard. That is the unnecessary or undue degradation standard

in Section 1732(b) of FLPMA, which requires mines to comply with all other environmental protection regulations.

Mr. LAMBORN. OK. I thank you for setting the record straight on these questions, and I appreciate your testimony, Ms. Struhsacker.

Mr. Chairman, I yield back.

Mr. GRIJALVA. Ranking Member, any closing comments?

Ms. HERRELL. I would just say I appreciate the conversation, dialogue we have had today, and I am grateful to have gotten to fill in for my good friend, Congressman Stauber. Thank you for chairing this, as well.

Mr. GRIJALVA. Thank you very much. And let me just thank the witnesses.

And the members of the Committee may have additional questions for our witnesses today, and we will ask you to respond to those in writing. They must submit those within 3 business days following this hearing. Then we will keep the hearing record open for an additional 10 days for the responses from our witnesses.

I want to thank everybody. I appreciate it.

President Stiffarm, thank you very much. You know, understood and not said was that the 1872 Mining Law, like the Homestead law of that same time, was also an instrument of dispossession for Native American Nations across this country. And we can't forget that. And we can't forget that we need to correct. We can't rewrite that history, you can't erase that history, but you can correct anything going forward. And the whole intent today is what do we need to do going forward to correct.

And it is a right time to talk about this, where the urgency to make the climate change has created an urgency for us to transition to renewable and clean energy, and that urgency requires critical and essential minerals. We know that.

And this law is not about stopping mining, but bringing it into this 21st century reality, No. 1.

And No. 2, part of that reality is the public's right to know, transparency, and to bear some accountability and responsibility for what comes afterwards. After an operation is done, 20 years, 23 years, whatever that time period is, what happens then? Whose responsibility is it to reclaim, restore, or mediate and provide remediation for what is left behind? I think it belongs also with the industry, and it belongs, through royalties, with the ability to begin to deal with that backlog. And that is not assessing responsibility to a particular company. It is assessing the need to share that responsibility with everybody that is profiting from the extraction of minerals from our public lands.

Thank you very much. It is a tough topic, given the times, and given the pressure to deregulate, speed up, and ignore the collateral damage of the past. And it is my intent not to ignore that collateral damage, and not to seek retribution, but to seek a path forward that is going to make us a full part of this next century. Thank you very much.

With that, the meeting is adjourned——

Mr. STIFFARM. Mr. Chair, can I make one quick comment?

I would just like to add that this law was made in 1872, prior to a lot of our Native American treaties that put us on reservations, that took all our land.

So, what I am saying is when the tribes got put on reservations and had to sign treaties with the Federal Government, we had to change as life changed. But this mining law has not changed since 1872. That is all we are asking, is update and change and protect our people and our land. Thank you.

Mr. GRIJALVA. Thank you very much. The meeting is adjourned.

[Whereupon, at 12:32 p.m., the Subcommittee was adjourned.]

[ADDITIONAL MATERIALS SUBMITTED FOR THE RECORD]

Submissions for the Record by Rep. Grijalva

NATIONAL PARKS CONSERVATION ASSOCIATION
Headquarters
Washington, DC

May 11, 2022

Hon. Raul Grijalva, Chairman
Committee on Natural Resources
U.S. House of Representatives
Washington, DC 20515

Hon. Alan Lowenthal, Chairman
Subcommittee on Energy and Mineral Resources
U.S. House of Representatives
Washington, DC 20515

Dear Chairman Grijalva and Chairman Lowenthal:

On behalf of the National Parks Conservation Association (NPCA) and our nearly 1.6 million members and supporters, thank you for introducing H.R. 7580, the Clean Energy Minerals Reform Act of 2022. This timely legislation protects national parks, public lands, nearby communities and critical water supplies from the increased threat of hardrock mining as the United States continues a clean energy transition. Thank you as well to Chairman Lowenthal and the Subcommittee on Energy and Mineral Resources for holding a hearing on the Clean Energy Minerals Reform Act of 2022 on Thursday, May 12, 2022.

Since 1919, NPCA has been the leading voice of the American people in protecting our National Park System. Hardrock mining has long posed threats to national park landscapes across the country. Over the past several decades, NPCA has successfully advocated for protecting parks from various mining proposals that would have irreparably harmed them and nearby communities.

The General Mining Law of 1872, which governs more than 350 million acres of public lands, offers little to no environmental protection to these lands, adjacent national park units, vulnerable water resources and nearby communities. According to the U.S. Environmental Protection Agency (EPA), 40% of the headwaters of all western watersheds are polluted by mining with hardrock mining being the largest toxic polluter. Additionally, current law does not require the hardrock mining industry to pay any royalties, unlike the oil and gas industries. This allows companies to stake claim of public lands and then reap the benefits of public resources for private gain without paying anything to the American taxpayer. There is also no incentive or requirement for these private companies to clean up their mines when they are finished leaving governments and communities to live with the impacts of mining's toxic legacy.

The Clean Energy Minerals Reform Act of 2022 would fix these issues and many more, working to make the industry cleaner and more responsive to environmental protections and requiring a fair royalty for the extraction of resources on public lands. Of particular importance to NPCA is Section 111—Protection of Special Places. This language explicitly protects national parks, monuments and other conservation areas from hardrock mining. The section acknowledges that parks are not islands but are interconnected with the areas around them. It protects the waterways that flow into and through parks, the wildlife that do not know the boundaries created by humans, scenic vistas that have endured for ages and the air that gives life to human, animal and plant alike.

With the protections this legislation will add to our national parks and public lands while helping America achieve our renewable energy goals, NPCA is happy to support this legislation. We look forward to working with Congress to help this legislation become law. Please feel free to reach out to me with any questions.

Sincerely,

CHAD W. LORD,
Senior Director
Environment and Climate Policy

Statement for the Record

U.S. DEPARTMENT OF AGRICULTURE

Chairman Lowenthal, Ranking Member Stauber, and Members of the Subcommittee, thank you for the opportunity to present the views of the U.S. Department of Agriculture (USDA) on H.R. 7580, the "Clean Energy Minerals Reform Act of 2022." USDA appreciates the work the Sponsor and the Committee have done to propose reforms to the Mining Law through H.R. 7580 and look forward to continuing to work with Congress as the Administration undergoes its review of the Federal mining program and considers proposals for potential mining reforms.

Energy and Mineral Production on National Forest System Land

The Minerals and Geology Management program at the U.S. Department of Agriculture (USDA) Forest Service administers mineral and geologic resources, overseeing mineral exploration, development and reclamation activities related to federal and non-federal mineral estates according to specific authorities, legislation, rules, and regulations. The Forest Service interacts with DOI's Bureau of Land Management and state agencies to manage minerals on National Forest System (NFS) lands and also investigates and remediates abandoned mine lands from historic mining.

The NFS plays a significant role in delivering critical and other minerals to the nation and provide a large land base for industry interest to explore and develop critical minerals. There are nearly 105,000 active mining claims encumbering over 2.3 million acres of National Forests in western states as well as other hardrock mineral potential areas in eastern forests, representing a significant land base for potential critical mineral activity. There are 344 authorized mines on NFS land that provide significant contribution to the national production of several important minerals, including copper, lead, zinc, silver, gold, and platinum and palladium (both critical minerals).

Minerals and energy production from NFS land contributed about 38,700 jobs and nearly $5.6 billion to the Nation's Gross Domestic Product in 2020, while providing substantial economic benefits to rural areas where consistent employment and economic growth may be limited. The Forest Service processes, on average, 198 proposals/year to explore/develop hardrock minerals. A recent analysis of 2,500 hardrock-related approvals over a 5-year period found that 52% were approved within 2 years of submittal.

Management and Regulation of Mining on NFS Land

Lands within national forests are subject to location and entry under the general mining and mineral leasing laws pursuant to the Organic Administration Act of 1897. Specifically, National Forest System lands reserved from the public domain are "open to mineral entry" unless they have been withdrawn from entry and appropriation under the mining laws, subject to valid existing rights. There are exceptions to this. Hardrock minerals on acquired NFS lands and on NFS lands in Michigan, Wisconsin, Minnesota, Missouri, and Kansas are excluded from the operation of the mining laws. Therefore, mineral resources on those lands may only be leased, with surface use and occupancy for the purposes of exploring for or developing mineral resources permitted under vastly different authorities in close coordination with the Bureau of Land Management.

The Organic Administration Act authorized the Secretary of Agriculture to make rules to regulate occupancy and use of the land and preserve the forests from destruction. The Act also specifically declared it does not prohibit prospecting, locating, and developing mineral resources within the national forests. However, the

Act requires that everyone must comply with the rules and regulations governing the surface occupancy and use of the national forests, including people engaging in activities covered by the mining laws.

The USDA Forest Service regulations governing operations under the mining laws conducted on NFS lands were first promulgated in 1974 and are found at 36 CFR Part 228 Subpart A. Aside from two minor rule changes in 1981 and 2005, the Forest Service mining regulations have not seen significant revision since 1974.

Part 228 subpart A regulates occupancy and use authorized by the mining laws conducted on NFS lands, whether within or outside the boundaries of a mining or millsite claim, including the prospecting, exploration, development, mining, and processing of locatable minerals (operations). This subpart also regulates other activities, such as the subsequent reclamation and long-term post-closure resource management of such operations. Although 228 subpart A does not provide for issuing a permit for activities covered under the 1872 general mining law, it does require notices of intent to conduct most mining activities, and submission and approval of a plan of operations for activities that will likely cause or are causing significant disturbance of surface resources. It also mandates that those activities be conducted so as to minimize adverse environmental impacts on NFS lands. While the Forest Service has the authority to minimize surface impacts, it has little authority to categorically deny any plan of operations that complies with the regulations.

Each proposed operating plan submitted under the Part 228 subpart A undergoes an environmental analysis and must comply with all applicable surface resource protection laws including the Clean Air Act, the Clean Water Act, the Endangered Species Act, and the National Historic Preservation Act. The Forest Service also engages in Tribal consultation with federally recognized Tribes to ensure their concerns are considered in processing operating plans.

In alignment with the Administration's "Fundamental Principles for Domestic Mining Reform," the USDA Forest Service will coordinate with the Department of the Interior's Bureau of Land Management on any necessary updates to 36 CFR Part 228 Subpart A.

Modernizing Domestic Mining

In February, the Administration released its "Fundamental Principles for Domestic Mining Reform" to identify the key values that will drive the efforts to review the country's mining regulations, laws, and permitting processes. These principles include:

- Establishing Strong Mining Standards
- Securing a Sustainable Domestic Supply of Critical Minerals
- Prioritizing Recycling, Reuse, and Efficient Use of Critical Minerals
- Providing Permitting Certainty
- Adopt Fair Royalties
- Establishing a Fully Funded Hardrock Mine Reclamation Program
- Conducting Comprehensive Planning
- Protecting Special Places
- Soliciting Community Input and Conducting Tribal Consultation
- Utilizing Best Available Science and Data
- Building Civil Service Expertise in Mining

We concur with the Department of the Interior's testimony that provides additional detail on these principles and the Administration's agenda.

Consistent with direction in the Infrastructure Investment and Jobs Act (P.L. 117-58), USDA and DOI are leading an Interagency Working Group (IWG) with experts from across the Federal government to identify measures that would increase the timeliness of permitting for the exploration and development of domestic critical minerals. The IWG will also consider options for cost recovery to ensure adequate staffing and training to ensure efficient processing of applications, operating plans, leases, and permits.

Conclusion

Our national forests and grasslands play an important role in contributing to an adequate and stable supply of mineral and energy resources. USDA looks forward to working with Congress and this Committee to continue to pursue necessary reforms to the nation's mining laws. We recognize the need for environmentally responsible and sustainably mined domestic production of mineral resources to help

transition the country to a clean energy economy and to meet national security objectives, while ensuring the long-term protection of natural and cultural resources.

Submissions for the Record by Rep. Herrell

CONGRESS OF THE UNITED STATES
HOUSE OF REPRESENTATIVES
WASHINGTON, D.C. 20515

May 16, 2022

Hon. Raul Grijalva, Chairman
House Natural Resources Committee

1324 Longworth House Office Bldg.
Washington, DC 20515

Hon. Alan Lowenthal, Chairman
Subcommittee on Energy and Mineral Resources
108 Cannon House Office Bldg.
Washington, DC 20515

Dear Chairman Grijalva and Subcommittee Chairman Lowenthal:

I write to you to discuss my deep concern with the Clean Energy Minerals Reform Act (H.R. 7580). This legislation would have a devastating effect in Nevada's 4th Congressional District that would lead to job losses, maintain our reliance on foreign countries for critical minerals, and have an adverse and negative effect on rural communities in my district.

Nevada mining produces more than 20 minerals and metals that Americans use every day. Nevada is one of the largest gold producers in the world and is responsible for nearly 80% of all U.S. annual production. In addition, it has the only operating lithium mine in North America with several proposed lithium mines currently under review. These minerals will be critical moving forward to provide clean energy, produce batteries for electric vehicles, and new technologies.

Mining is also a major economic driver in Nevada, providing workers with some of the highest wages, with an average salary nearly double that of the state average. In fact, in 2018, the industry paid over $2.4 billion in wages. At a time of rising inflation and my State still recovering from the impacts of COVID-19, now is especially not the time to introduce more taxes that may lead to job loss in one of the most important sectors of Nevada's economy.

In addition, with Russia illegally invading Ukraine and China seeking a larger and larger hegemonic role in global affairs, it is clear that we must work at ensuring a robust domestic supply of critical minerals to ensure our national security. As a member of the Critical Minerals Caucus, I understand how important it is to ensure we have these minerals which are found in our homes, smartphones, and transportation methods. Our hardrock mining industry is a solution to address these issues, not the problem.

Since the founding of the Comstock Lode in the 1850s, mining has been a rich part of Nevada's economy and culture, making us known worldwide as the Silver State. I will continue fighting for this important industry that is critical to my constituents in Nevada's 4th Congressional District.

I appreciate you reviewing my concerns. Should you have any questions, please do not hesitate to contact Kevin Herzik of my staff at Kevin.Herzik@mail.house.gov.

Sincerely,

STEVEN HORSFORD,
Member of Congress
4th District, Nevada

NATIONAL MINING ASSOCIATION
Washington, DC

May 12, 2022

Hon. Raúl Grijalva, Chairman
House Natural Resources Committee
1324 Longworth House Office Bldg.
Washington, DC 20515

Hon. Bruce Westerman, Ranking Member
House Natural Resources Committee
1329 Longworth House Office Bldg.
Washington, DC 20515

Hon. Alan Lowenthal, Chairman
Subcommittee on Energy and Mineral Resources
1324 Longworth House Office Bldg.
Washington, DC 20515

Hon. Pete Stauber, Ranking Member
Subcommittee on Energy and Mineral Resources
1329 Longworth House Office Bldg.
Washington, DC 20515

Dear Chairman Grijalva, Ranking Member Westerman, Chairman Lowenthal and Ranking Member Stauber:

The National Mining Association's (NMA) mineral producers strongly oppose H.R. 7580, the "Clean Energy Minerals Reform Act of 2022." If enacted, this legislation will jeopardize the viability of the U.S. mining industry at a time when the metals and minerals we produce domestically are, according to the White House, "essential to our national security and economic prosperity."[1] This bill is in direct conflict with President Biden's call for a reliable domestic mineral supply chain. It is more apparent than ever that the growth of our economy is contingent on increased and reliable access to the metals and minerals necessary for manufacturing, advanced energy technologies, defense readiness and technological innovation.

Whether you consider rising inflation, increasing energy costs, Russia's invasion of Ukraine, COVID-19 supply chain issues or trade tensions with China, it is clear that America's growing reliance on foreign sources of metals and minerals is unsustainable and puts our nation at a strategic disadvantage, further jeopardizing our post-pandemic recovery and global competitiveness.

Voters are increasingly concerned about these alarming trends. A recent poll conducted by Morning Consult showed that 74 percent of Americans support U.S. action to encourage the use of domestically-mined minerals to decrease reliance on imported minerals. Rather than promoting policies to reduce our mineral import reliance, this bill's punitive and unrealistic measures create barriers to domestic mining.

Even the Biden administration's supply chain assessment, found that "the United States must secure reliable and sustainable supplies of critical minerals and metals to ensure resilience across U.S. manufacturing and defense needs . . ."[2] Unfortunately, less than half of the mineral needs of U.S. manufacturing are currently met by domestically mined minerals.

According to the U.S. Geological Survey's 2022 Mineral Commodity Summaries, imports made up more than one-half of the U.S. consumption for 47 nonfuel mineral commodities—up from 46 last year—and the U.S. was 100 percent net import reliant for 17 of those, and that China was a primary source of imports for 25 minerals.

The harmful provisions found in H.R. 7580—including new, punitive royalties and fees, duplicative environmental regulations, a wholesale conversion from a locatable to a leasing system, and limitations on land access—represent not only a dangerous threat the U.S. mining industry but threatens U.S. competitiveness with the rest of the world to meet the ever-increasing demand for minerals.

Like its predecessors, H.R. 7580 continues to embrace anti-mining rhetoric based on false assumptions of how modern mining is regulated and the economic benefits it provides. Currently, domestic mining operations pay nearly half of their earnings in federal, state and local royalties, taxes and other fees to benefit the communities in which it works and the U.S. federal government. In 2018, domestic mining

[1] https://www.whitehouse.gov/briefing-room/statements-releases/2022/02/22/fact-sheet-securing-a-made-in-america-supply-chain-for-critical-minerals/.

[2] https://www.whitehouse.gov/wp-content/uploads/2021/06/100-day-supply-chain-review-report.pdf.

activity generated an estimated $18 billion in federal, state and local taxes that supported direct, indirect and induced taxes of $41 billion. Punitive federal royalties that have been discussed would push the U.S. beyond the upper limit of the range in effect in other countries, significantly impairing our global competitiveness and making investments in the U.S. far less attractive.

Additionally, U.S. mining is one of the most heavily regulated industries in the world. This bill's duplicative environmental provisions ignore the more than three dozen comprehensive federal and state environmental, ecological, and reclamation laws and regulations applicable to the industry that have been continually amended to keep pace with modern mining practices.

The mining industry has repeatedly indicated a willingness—to this committee and others—to engage in conversations about reasonable amendments to the General Mining Law, and it continues to be our guiding principle to work with the committee and the Biden administration to find a compromise that supports and maintains the competitiveness of the domestic mining industry.

Any changes, however, must promote a viable domestic mining industry, support investment in domestic mineral projects, address the nation's reliance on foreign minerals, and provide a fair return to the American public. In contrast, H.R. 7580 represents a deliberate intent to make hardrock mining uneconomic in the U.S.

We urge you to oppose the Clean Energy Minerals Reform Act, and instead prioritize policies, including modernization of the minerals permitting process, to enable development of the metals and minerals that will allow our nation to achieve greater innovation, supply chain security and economic growth.

Sincerely,

RICH NOLAN,
President & CEO

[LIST OF DOCUMENTS SUBMITTED FOR THE RECORD RETAINED IN THE COMMITTEE'S OFFICIAL FILES]

Submissions for the Record by Rep. Herrell

- American Exploration & Mining Association, Letter dated May 11, 2022 from Mark Compton, Executive Director, opposing H.R. 7580
- AMIGOS, Letter dated May 12, 2022 from Sydney Hay, President, opposing H.R. 7580
- Arizona Chamber of Commerce & Industry, Letter dated May 9, 2022 from Danny Seiden, President and CEO, opposing H.R. 7580
- Arizona Mining Association, Letter dated May 5, 2022 from Steve Trussell, Executive Director, opposing H.R. 7580
- Coeur Mining, Letter dated May 5, 2022 from Mitchell J. Krebs, opposing H.R. 7580
- Elko County Board of Commissioners, Letter opposing H.R. 7580
- Eureka County Board of Commissioners, Letter dated May 10, 2022 from J.J. Goicoechea, DVM, Chairman, opposing H.R. 7580
- Humboldt County, Nevada Board of Commissioners, Letter dated May 2, 2022 from Jim French, Chairman, opposing H.R. 7580

— Pershing County Board of County Commissioners, Letter dated May 4, 2022 from Shayla Hudson, Chair, opposing H.R. 7580

— Western Governors Association, Letter dated May 9, 2022 from James D. Ogsbury, Executive Director, submitting Policy Resolution 2018-09, Policy Resolution 2020-02, and Policy Resolution 2021-09

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