

## **Oversight Hearing: "Seeking Innovative Solutions for The Future of Hardrock Mining"**

Subcommittee on Energy and Mineral Resources  
Committee on Natural Resources  
U.S. House of Representatives

### **Statement of James F. Cress**

July 20, 2017

Mr. Chairman and members of the Subcommittee,

My name is Jim Cress. I am testifying today on the subject of mining royalties at the request of the Subcommittee and not on behalf of any organization. I am a mining lawyer in private practice at Bryan Cave LLP in Denver. With Bryan Cave and a predecessor firm, Holme Roberts & Owen, I have specialized for nearly 30 years in U.S. and international mining law, as well as oil and gas and coal law. I have represented mining companies and landowners in negotiating royalties for gold, silver, copper, iron, zinc, coal, uranium, barite, oil and gas and other minerals, and have advised clients on royalty compliance for private, federal and state royalties and mineral severance taxes. In my international practice, I have evaluated mining royalties and taxes and negotiated royalty and mining agreements with governments in a number of countries. I have also devoted substantial pro bono time to mining issues, particularly in developing countries. I worked on the royalty provisions in the International Bar Association Mining Law Committee's Model Mine Development Agreement, an example template for a mining agreement between a developing country government and mining company. I have supported local and indigenous communities in obtaining more equitable participation in the benefits of mining through the non-profits Sustainable Development Strategies Group and RTC Impact Fund.

Thank you for the opportunity to appear and speak on the important issue of hardrock mining royalties. I have previously testified on this subject before this Subcommittee and before the Senate Energy & Natural Resources Committee, and my comments today will reflect on some of the same issues, which are difficult ones. In particular, if Congress determines that a royalty on locatable hardrock minerals is needed, how can Congress structure a royalty on to promote a fair return to the public, while ensuring a viable domestic mining industry that minimizes reliance on foreign imports of strategically critical minerals?

#### **A. What Does a Royalty Compensate? How Much is Too Much?**

The threshold policy question for evaluating a federal hardrock mining royalty is what is the policy reason for compensating the United States with a royalty? Any royalty payment to the United States for hardrock minerals should be based on the value of the United States' ownership interest in the minerals.

That interest is limited to the raw minerals in the ground. The purpose of the federal royalty is to encourage exploration and discovery across millions of acres of federal land which are not yet proven to contain mineral deposits. Compared to oil & gas and coal and similar bedded deposits like sodium and potassium, hardrock deposits are much harder to find and generally require much more extensive mining, processing and refining to produce salable products. A royalty should not be paid on value added to the raw minerals by a mining company spending hundreds of millions of dollars to find, process, refine and sell the mineral products. The United States makes land available for mineral exploration, but the United States contributes nothing to the enormous costs and effort of finding, producing and processing the minerals.

Mining companies pay income and many other taxes in the United States. Any discussion of federal hardrock royalties should focus not only on the amount of the royalty, but on the entire tax and royalty burden applicable to mining. Mining companies take the same holistic view of the cost of doing business when they are deciding whether to invest their exploration and mine development capital in the U.S. or another country.

The total "government take" (royalties, taxes and other fees) for mining operations in the United States is already comfortably within the range of other competitive mining countries. Professor James Otto and others have conducted various studies comparing government take from mining in various countries, which included the states of Arizona and Nevada (two of the highest mineral producing western states with substantial federal lands). The most recent public study was published in 2000. Otto, Batarseh & Cordes, "*Global Mining Taxation Comparative Study (Second Edition)*" (Institute for Global Resources Policy & Management Mar. 2000) ("Global Mining Taxation"). The study evaluated all of the direct and indirect taxes on mining (including royalties) in 24 countries, including a range of developed and developing countries. The authors then modeled the impact of "government take" in these countries on two hypothetical mineral deposits, a gold mine and a copper mine, to evaluate and compare the burden imposed by these tax and royalty regimes.

Professor Otto testified in 2008 before the Senate Energy and Natural Resources Committee that his studies have shown that many mineral producing countries impose a total effective tax rate (government take) in the range of 40 to 50%. In the Global Mining Taxation study, the effective tax rate in 2000 for Nevada was 49.3% for a medium-profitable gold mine, without the imposition of any federal royalty. See Global Mining Taxation, Section 4.5, pp. 95-96 and Table 27. With a 10% drop in the gold price from the 2000 price, Nevada's effective tax rate jumped to a confiscatory 63%. Id. p. 101 and Table 28. Similarly, the effective tax rate in 2000 for the hypothetical copper mine in Arizona was 49.9%, without the imposition of any federal royalty. Id. Section 4.5, pp. 95-96 and Table 27. These studies suggest that even a small federal royalty could take the United States out of the 40-50% effective tax rate range typical for successful mineral producing countries, making the U.S. less competitive for mining investment.

It would be prudent to update these studies in designing any federal royalty, so the impacts can be modeled and understood. Significantly, as discussed below, almost all of the western states already impose a severance or extraction tax on mining from private, state and federal lands. Any federal royalty will have to be added on top of these existing burdens, making it crucial that the royalty not be so high that the combined burden makes future mining uneconomic, negatively impacting state tax revenues and driving mining activity off of federal lands.

## **B. Form of a hardrock royalty - gross versus net royalties and royalty rates**

There are many types of royalties used in the mining industry and by governments around the world, from simple unit-based royalties (a fixed amount per ton produced) to royalties based on net proceeds or net profits after deduction of mining and/or processing costs, to gross royalties with little or no deductions. The latter two types, often referred to loosely as "net" and "gross" royalties, are most often proposed for a potential federal hardrock royalty.

There are two issues to consider when evaluating net and gross royalties - the royalty rate and the calculation of the amount against which that rate is applied (also called the "royalty base"). Differences in the royalty base are what we are discussing when talking about "net" versus "gross" royalties. It is important to look closely at the definition of the royalty base when comparing private royalties to government royalties or comparing royalties of different countries or U.S. states, since what may be called a "gross" royalty may actually be based on the "gross value of ore," rather than a final mineral product, the "gross value less processing costs," "gross value at the mine mouth" or another royalty base definition that is functionally equivalent to a net royalty base. "[T]he definition of the royalty base is critical to understanding the rate. When comparing royalty rates in different jurisdictions, care must be taken not to compare rates unless the royalty base is identical." Otto, et al., "Mining Royalties: A Global Study of Their Impact on Investors, Government, and Civil Society" p. 62 (World Bank 2006)("World Bank Study").

Net royalties and gross royalties have differing impacts on mining investment due to the cyclical nature of commodity price cycles. Generally, a royalty assessed on gross income increases the economic risk of a given mining investment, and acts as a disincentive to investment. As a consequence, a company looking to develop a project will require a higher required pretax and after-tax rate of return to accommodate the increased risk. Because a royalty assessed on net income has a smaller effect on the variability of after-tax rates of return, it is a better basis for assessing a royalty. As 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 the other costs of the mining operation are relatively fixed, the gross royalty takes a bigger bite out of the shrinking

income pie as prices decrease. This can have a dramatic impact on whether existing mines stay open or new mines are built.

Because the royalty assessed on gross income will cause a larger reduction in after-tax income when profits are low (or negative) than a royalty assessed on net income, the royalty on

A gross royalty can exacerbate industry downturns by causing a greater reduction in the cash flows of mining companies when profits are already low. A gross royalty may actually reduce the volume of an ore deposit that can be recovered. Each deposit of metallic minerals will have varying grades of mineral, generally requiring extensive concentration and refining to be marketable. The portion of the deposit with grades too low to be recovered economically is either removed as waste or left undisturbed in the ground. A gross royalty raises the "cutoff point" between recoverable ore and waste, and may shorten the life of a mine by causing what otherwise would be valuable minerals below the cutoff point to be lost. These lost reserves generally can never be recovered, because once a mine is closed and reclaimed, the stranded reserves are usually uneconomic to recover on their own in the future. When mines shut down prematurely, in addition to lost mineral reserves, jobs are lost, federal state and local tax revenues are lost, and business is lost by suppliers of other goods and services that support the mines. These lost economic benefits affect both those directly involved in the mining activity and the governmental entities, including the United States, and their citizens who rely on taxes paid by mining operations.

A net proceeds or net income royalty, in contrast, does not cause a mining operation to operate at a loss. A net royalty automatically reduces during periods of low prices and increases again when prices are higher, permitting mining operations to weather periods of low commodity prices and maximize the recovery of marginal ore during periods of high prices. Due to the cyclical nature of demand for mineral commodities, there have been and will always be periods of lower commodity prices. A net royalty provides the best incentive to explore for minerals on federal lands throughout economic cycles and keep the domestic industry viable and the nation's mineral supply secure.

Determining what rate is appropriate to apply across dozens of commodities and millions of acres of federal land with differing mineral potential should not be a matter of opinion or guesswork. Congress should look closely at the type and rate of hardrock mineral royalty that has worked in states and countries that have maintained vibrant mining industries.

### **C. Hardrock minerals are different, and should be treated differently than coal and oil and gas**

Why should hardrock minerals not be subject to the 8 percent or greater royalty imposed on oil & gas and coal? The dramatically different characteristics of the minerals themselves and the ways in which they are explored for and developed justifies different royalty treatment. The royalty on oil produced

under federal leases is not based upon the value of these refined products, however; it is measured by the value of the crude oil at the lease or wellhead, prior to such processing and refining. Unlike most hardrock minerals, there is a market for oil in its crude, unrefined state and therefore a ready value for royalty purposes before the value added by refining and processing. Most oil is sold at the wellhead into this crude oil market and that wellhead sales price establishes the value of the oil for federal royalty purposes. Thus, it is somewhat misleading to call the federal royalty on crude oil a "gross" royalty, because the royalty is "net" of refining costs, equivalent to a net or mine mouth royalty on the value of raw ore in a hardrock operation.

Similarly, federal royalty on gas is also based upon the value of the gas at the lease. After gas is extracted, often the only thing required for consumption by the ultimate end-user is transportation (the cost of which, if paid by the producer, is deducted before royalties are calculated). Sometimes further processing is required to remove sulfur and separate gasoline, butane and other constituents from the gas. The royalty, however, remains payable on the value of the gas at the lease or wellhead and the processing costs incurred by the producer downstream of the lease are deducted under the federal rules before calculating royalty, to arrive at essentially a "net" value at the lease.

Coal is a solid mineral of generally uniform quality and composition that requires little or no processing. In the West, where most federal deposits exist, coal beds are vast, world-class deposits of great thickness, in Wyoming averaging 80 feet and up to 200 feet. 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. While the 12.5% royalty for surface mined coal (8% for underground) imposed in 1976 was a substantial increase over coal royalties typical at the time, the royalty did not take effect for many federal coal leases until they were readjusted, which occurred over a period of 20 years. In addition, the federal coal royalty regulations permit the deduction of the most material post-mining costs, coal washing (where needed) and transportation. Thus, the federal coal royalty is not a gross royalty in the strictest sense, and like oil and gas, is more akin to a net or mine mouth royalty on the value of raw ore in a hardrock operation.

Oil and gas and coal are not the only leasable minerals on federal lands. Sodium, potash, and phosphate are leasable minerals that are low margin industrial and fertilizer minerals, the economics of which cannot support a 12.5% or even an 8% royalty. The statutorily established base rate for phosphate is 5% and for sodium and potassium is 2%. That is because the nature of these commodities and the economics around their extracting and marketing differ from oil and gas and coal. In practice, these mines have operated under government-sanctioned reduced royalties during periods when economic conditions and foreign competition threatened to close the mines.

These examples demonstrate clearly why prevailing royalties differ from mineral to mineral. Specific analyses can be made for many other types of minerals. It is clear, however, that application of a gross royalty at a rate of 8%

to hardrock minerals simply because that is what is done with coal and oil and gas would be overly simplistic and dangerously naive.

**D. State Royalties and Severance Taxes are Generally Net Royalties or Small Gross Royalties**

Western states, in which most federal lands are located that would be subject to a federal hardrock royalty, tend to impose two types of burdens on hardrock mining - royalties on mineral production from state lands and severance taxes on private, state and federal mineral production. Both are calculated using a percentage of the value of the mineral produced, so both can be useful as comparisons for a federal royalty.

The approaches of the western states to royalties and severance taxes, including the use of net or gross, vary considerably (with more than one approach sometimes used in the same state), but most states include a net approach or an approach based on the gross value of ore or mine mouth value, which is equivalent to a net. State royalties and severance taxes were summarized by the General Accounting Office in a 2008 study. See "Hardrock Mining: Information on State Royalties and Trends in Mineral Imports and Exports," GAO-08-849R (GAO July 2008)(2008 GAO Report).

Western states apparently do not perceive that net approaches impose undue burdens on the state in calculating and collecting royalties and severance taxes. No state imposes a flat royalty on gross income without any deductions like the royalty often proposed in prior mining law and budget bills. In addition to their varied approaches to the royalty or severance tax base, the states all impose significantly lower royalty or severance tax rates than the 8% gross royalty that has often been proposed in prior mining law and budget bills. Rates in the western states tend to be lower for gold, copper and other metals.

The various western state approaches to royalty and severance tax base are discussed below in a continuum from the most "net" to the most "gross" approaches. This summary is based on the 2008 GAO Report, the most recent survey of state royalty and severance tax laws, and has not been updated, but the variety of state approaches have not differed materially since its publication.

**1. Net Profits or Net Proceeds**

A number of states define the royalty base or severance tax base on a net profits or net proceeds basis. These state burdens are truly "net," in the sense that the royalty base is typically determined after deduction of all mining and processing costs and transportation.

**Alaska** imposes a royalty of three percent of net income on mining from state lands. Alaska Stat. § 38.05.212. Alaska also imposes an additional mining license tax (similar to a severance tax) that is calculated as a percentage (between three and seven percent) of the net income from the property.

Producing mines are exempted from the tax for three and a half years, in order to allow them first to recover their capital costs. Alaska Stat. Tit. 43, Ch. 65..

**Nevada** imposes a severance tax of between 2 and 5 percent of net proceeds. Nev. Rev. Stat. Ann. Ch. 362.. "Net proceeds" is defined as the gross value of the mineral product, less deductions for extraction costs, processing, refining and sale costs, costs of transportation from the mine to the place of processing and sale, marketing costs, maintenance and repair costs for machinery, facilities and equipment used in mining, processing and transportation, depreciation of such facilities and equipment, insurance costs, costs of employee benefits, development costs, royalties, and certain administrative overhead costs. *Id.* § 362.120; Nev. Admin. Code Ch. 362. This tax is phased in as the percentage of net proceeds to gross proceeds increases, with the lower rate applying to operations generating \$4 million or less in annual net proceeds.

**California** imposes a royalty on state lands on a lease-by-lease basis. One basis used is a percentage of the net profits derived from mineral extraction operations. See Cal. Pub. Resources Code § 6895.

**Montana** taxes the net proceeds of minerals other than coal, bentonite and metal mines (metal mines are taxed on a net smelter returns basis as described below). Mont. Code Ann. § 15-6-131(1), (2). *Id.* § 15-23-503. The "net proceeds" tax base is defined as gross receipts received from the sale of concentrates or metals, less allowable deductions. Deductions allowed include royalties paid, costs of labor, machinery and supplies used in mining operations and development, costs of improvements, repairs or replacements to the mine, mill or reduction works, and depreciation of the mill and reduction works, transportation from mine to mill or place of sale, marketing costs, insurance, environmental, reclamation and mine safety compliance costs, sampling and assaying charges, engineering and geological service charges.

"Net profits" are defined as gross receipts from the sale of precious metals, less deductions for the cost of extraction, transportation from mine to mill, the costs of reduction, refining and sale, marketing costs, costs of maintenance and repairs of mining, processing and transportation machinery, equipment and facilities and administrative facilities, interest costs, insurance costs, employee benefits, depreciation of machinery, equipment and facilities, mine exploration and development costs, reclamation costs, royalty payments, state and local taxes, and general administrative expenses incurred within the state. *Id.* §§ 10-39-44, 10-39-45.2.

**Arizona** also had a royalty on state land of five percent of the net value of minerals, until a 1989 state supreme court decision overturned this method as being inconsistent with the State's enabling act (a rationale that would not apply to a federal royalty). Ariz. Rev. Stat. § 27-234 (repealed); see *Kadish v. Arizona State Land Department*, 155 Ariz. 484; 747 P.2d 1183 (1987).

## **2. Gross Value of Ore or Mine Mouth Value**

A number of western states have imposed royalties or severance taxes that are based on the gross value of the unprocessed ore or mine mouth value. This is the functional equivalent of a net proceeds or net profits approach, with deductions for all processing and transportation costs and, in some states, mining costs.

**Colorado's** severance tax is 2.25% of the gross value of the ore, excluding any value added subsequent to mining, and subject to an exclusion for the first \$19 million in income and credits for property taxes and any state land royalties. Colo. Rev. Stat. §§ 3929-102 to -104. Colorado state land royalties are determined on a case by case basis, see Colo. Rev. Stat. §36-1-113 , but gross value of ore has been used for some minerals, and net smelter returns for others. See "Royalties in the Western States and in Major Mineral-Producing Countries," GAO/RCED-93-109, p.28 (GAO 1993)("1993 GAO Report").

**Idaho** imposes a license tax (equivalent to a severance tax) of 1% of the gross value of ore, after deducting all costs of mining and processing the ore. Idaho Code §§ 47-1201, 47-1202. Idaho, like Colorado, imposes state land royalties on a case by case basis in each lease, see Idaho Code § 47-710 , and has in the past also used a royalty of between 2.5% (for certain metals) to 10% (for certain non-metallic minerals) of the value of the unprocessed ore. See 1993 GAO Report, p.30.

**Utah** has imposed a royalty on minerals extracted from state lands of a specified percentage of the value of the minerals, including a royalty of 4% of the gross value of the ore sold for metals other than uranium. See 1993 GAO Report, p.43.

**South Dakota** imposes a royalty on leases of state lands of not less than 2% of the gross returns from the sale of ores and mineral products derived therefrom, less smelting and reduction charges and transportation and any other "customary and appropriate charges" determined by the state land commissioner. S.D. Cod. Laws § 5-7-55. If the ore is sold, this constitutes a royalty on the "gross value of ore" without a deduction for mining costs.

**Wyoming's** severance tax is based on the fair market value of the minerals at the mouth of the mine, after extraction. Wyo. Stat. § 39-14-703. This royalty base is also equivalent to the value of ore, like the states above, but without a deduction for mining costs.

**Montana** imposes a royalty on state lands of at least 5% of the market value of the minerals recovered. Mont. Code Ann. § 77-3-116. Montana has in the past defined this royalty as a percentage of the value of the raw minerals recovered from the claim, See 1993 GAO Report, p. 32; 2008 GAO Report, p.18-19, which is similar to the "gross value of ore" used in the states described above.



**Oregon** imposes a royalty of 5% on most metallic minerals removed from leases of state lands. Or. Admin. R. §§ 141-071-0410, -0610. The royalty base is calculated on the gross value of minerals at the mine mouth. *Id.* § 141-071-0620; *See 2008 GAO Report*, p.25.

### **3. Net Smelter Return and Similar Approaches**

Several states employ net smelter return or similar methodologies in their royalties or severance taxes. Net smelter return approaches are more common in state land royalties, which may be in part because of the trust requirements imposed by state enabling statutes on state lands, as discussed above.

**Montana** imposes a license tax (similar to a severance tax) on metal mines of 1.6% of the net smelter returns for precious and base metals. The tax is 1.8% on mineral concentrates prior to shipment to the smelter. Mont. Code Ann. §§ 15-23-801, 15-37-102, 15-37-103. The tax base is the receipts received from the sale of concentrates or metals, less allowable deductions. Deductions allowable in calculating the tax include treatment and refinery charges, costs of transportation from the mine or mill to the smelter, roaster or other processing facility, quantity, price, impurity and penalty charges, and interest. *Id.* § 15-23-801(5). Treatment and refinery charges include labor cost, utility and fuel costs, costs of maintenance, repairs and supplies, materials, depreciation, rental of equipment, pollution control costs, costs of training, freight, engineering, insurance and licensing attributable to smelting and refining, administrative services and all third party treatment and processing costs. *Id.* § 15-23-801(2).

**New Mexico** imposes a royalty on state lands of not less than 2% of the gross returns from the smelter or other processing facility, less the costs of smelting or reduction and transportation. N.M. Stat. Ann. § 19-8-22. This is functionally a net smelter returns royalty. The royalty percentage is not less than 5% for uranium and certain other minerals.

**South Dakota** imposes a royalty on leases of state lands of not less than 2% of the gross returns from the sale of ores and mineral products derived therefrom, less smelting and reduction charges and transportation, and any other "customary and appropriate charges" determined by the state land commissioner. S.D. Cod. Laws § 5-7-55. If concentrates or metals are sold and no other deductions are allowed by the commissioner, this is equivalent to a net smelter return.

As an alternative to the net profits royalty base described above, **California** may impose on a case-by-case basis a royalty on state lands based on 10% of the gross value of the mineral production less processing and transportation charges, which is similar to a net smelter return calculation. *See* Cal. Pub. Resources Code § 6895.

#### **4. Gross with Flat Cost Deduction**

Two states use an innovative "gross with flat cost deduction" severance tax system. This approach attempts to approximate the economic burden of a net profits or net proceeds tax, while minimizing the administrative burden by eliminating the need to audit mine-specific cost deductions, by allowing a flat deduction of a percentage of gross proceeds to approximate the deduction of mining and processing costs. These states apply different tax rates to different minerals, and permit different flat cost deductions for different types of mineral products. This is not a "net" approach, however, because the flat cost deduction treats all mining operations the same regardless of their actual costs; this system is effectively a small gross burden that varies for different minerals. The administrative simplicity of the flat deduction has been somewhat offset by the need to amend the statute more frequently to ensure that the size of the flat cost deduction reflects actual costs to the extent possible, and to address concerns of particular mineral producers with higher processing costs, such as beryllium miners in Utah.

**New Mexico** imposes a severance tax of between 1/8 and 1/2 of 1% (depending on the metal or mineral) of the "taxable value" Taxable value is the value of a specific mineral product (concentrates for molybdenum, copper, lead and zinc, concentrate or dore for gold) less 50% to 66-2/3% of that value to approximate the costs of mining and processing. The tax rate and cost deductions differ for various minerals.

**Utah's** severance tax is 2.6% of the "taxable value," which is determined based on the product sold. If the mineral product sold is ore, the taxable value is 80% of the gross proceeds, with the 20% of the value excluded approximating a deduction for mining and transportation costs. If the product sold is metal (other than beryllium), the taxable value is 30% of the gross proceeds, with the remaining 70% of gross proceeds approximating a deduction for mining, processing and transportation costs. Beryllium formerly had a taxable value of 20% of the gross proceeds, with an 80% deduction for costs, but taxable value is now equal to 125% of the mining costs. For intermediate mineral products such as copper concentrate, the taxable value is based on the amount of contained metal in the product if the intermediate product is further processed rather than being sold at the point of taxation.

#### **5. Gross Receipts from First Marketable Product**

**Washington** imposes a royalty on minerals extracted from state lands of 5% of the gross receipts. "Gross receipts" are based on the value of the first marketable product, subject to the deduction of transportation costs. Wash. Admin. Code §§ 332-16-035, 332-16-155. This royalty appears to be either a gross or net burden depending on the mineral product sold, whether ore, concentrates or finished metals. Washington has no severance tax, which may help offset the impact of this potentially more gross royalty calculation.

## **6. Unit-based Severance Taxes on specific minerals**

Several states impose an additional, unit based severance tax on particular minerals. A unit-based tax is not based on a percentage of the value of the mineral, such as the net and gross ad valorem approaches described above, but is a flat dollar amount per unit of mineral produced. These taxes tend to be aimed at large producers or particular minerals in these states, presumably because the states have determined they are able to bear a higher tax burden. Unit-based royalties are not a good basis for designing a federal royalty, which must apply to many commodities and many types of mining operations.

**Colorado** imposes an additional severance tax of five cents per ton of molybdenum ore for all tons over 625,000 produced in a calendar quarter. The quantity limitation limits the tax primarily to two of the largest molybdenum mines in the world that have operated in Colorado for decades.

**South Dakota** imposes a severance tax on gold of \$4 per ounce, plus an additional \$1 to \$4 dollars per ounce depending on the gold price. *Id.* § 10-39-43.

### **E. Any hardrock royalty legislation should allow for royalty reductions and waivers on a case by case basis**

All current federal royalty statutes for oil and gas, coal and other minerals permit the Department of the Interior to grant royalty waivers and reductions on a case by case basis. The same flexibility should be provided in any hardrock mining statute. In order to avoid administrative complexity, any hardrock royalty will probably have to be applied in a fairly uniform manner across a large number of commodities and mining and processing methods. Any inequities created by this broad brush approach can be partially addressed by providing a mechanism for specific operations or mineral commodities to apply for royalty relief, in order to address economic hardships or to maximize the economic recovery of minerals from each deposit.

### **F. Any Royalty Should Not Apply to Existing Valid Mining Claims**

A grandfathering of at least some existing unpatented mining claims from the new royalty is both required by law and required to treat fairly parties that have made significant investments in federal lands prior to the enactment of the royalty. Moreover, it may be advisable to grandfather some claims that may not constitute fully vested property rights, in order to have a simple, bright-line test for which claims are subject to the new royalty, which will reduce uncertainty, reduce administration and litigation costs for the government and promote mining investment.

It is settled law that unpatented mining claims supported by a "discovery" of a "valuable mineral deposit" create Constitutionally-protected property rights in the owner of the claim. Imposition of a royalty on such claims is likely to

trigger significant "takings" litigation against the government. A royalty is in no way comparable to the imposition of simple federal filing requirements on unpatented mining claims, which was upheld by the Supreme Court in United States v. Locke, 471 U.S. 84 (1985). Grandfathering claims with a valid discovery as of the date of enactment from the royalty is thus the minimum transition approach that is legally defensible, as Professor John Leshy agreed in his prior testimony before the Senate Environment and Natural Resources Committee.

The problem with protecting only claims with a valid discovery is that determining which of the hundreds of thousands of mining claims has a discovery would be an unprecedented administrative challenge for the Department of the Interior. Under a long line of court cases and administrative decisions, a mining claim does not have to be currently producing to support a "discovery"; a reasonable prospect that the claim could be profitably mined is sufficient. Currently, the Department requires an administrative hearing in order to contest claims for lack of a discovery. Due process requires a hearing for claimants on this issue. The Department has only a handful of hearing examiners trained in the specialized rules applicable to determining whether a "discovery" exists. It would be unworkable for the Department to adjudicate hundreds or thousands of these mining claim validity cases to determine which claims can be legally subjected to a new federal royalty.

To avoid the royalty transition becoming an administrative gridlock, Congress should apply the royalty only to claims located after the enactment of the law or to claims that are not included in a plan of operations approved by the Department prior to the date of enactment (without a requirement for commencement of commercial production). Having a "bright line" test will save administrative costs and will also promote certainty about the application of the new royalty, which will encourage investment.

## **Conclusion**

In my experience, other countries are paying considerable attention to the appropriate royalty and tax burden to encourage mineral exploration and development. The United States has relatively low grade deposits of many hardrock minerals, relatively high labor and production costs, and appropriately stringent environmental and operating requirements. These costs must also be balanced in determining whether a royalty is necessary on federal lands and if so, how much royalty should be charged. Congress should not impose a royalty without careful consideration of the economic and competitive impacts.

I thank the Committee for the opportunity to address this important public lands issue, and I am happy to answer any questions you may have.