THE NEED FOR A ROYALTY FOR MINING ON PUBLIC LANDS:
While mining on public lands in the U.S. provides essential resources to modern economies, there are too often instances where irresponsible mining has devastated public lands and water resources. According to the EPA, 40% of the stream reaches in headwaters of western watersheds have been polluted by mining, and cleaning up the all abandoned hardrock (metal) mines could cost as much as $50 billion.¹

The lack of a royalty has left most abandoned hardrock mines unreclaimed for want of cleanup funding; they pose a continual threat to public safety and water resources. Just last month, a young girl died after falling down an abandoned copper mineshaft in Arizona.²

Although in public statements mining companies and industry trade associations have expressed support for a royalty, to date the hardrock mining industry has never paid a royalty on the metals they take from public lands. Since 1872, when the law that governs mining on public lands was written, at least $245 billion worth of metals like gold, silver, copper, and uranium have been mined with no return to the taxpayer.³ The underlying debate centers on the nature and amount of the royalty.

To ensure that public safety is protected and contaminated landscapes and waterways are cleaned up a royalty or fee levied on mining on public lands must generate adequate funds from the outset.

ALL OTHER U.S. EXTRACTIVE INDUSTRIES PAY ROYALTIES FOR PUBLIC MINERALS:
Those minerals covered by the 1872 Mining Law are given away⁴ without a royalty. Every other extractive industry pays 8–16.7% of the value of what they extract from public lands.

<p>| Royalties paid by other extractive industries | for United States’ minerals⁵ |</p>
<table>
<thead>
<tr>
<th>mineral type</th>
<th>royalty rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>underground coal</td>
<td>8.0%</td>
</tr>
<tr>
<td>surface coal</td>
<td>12.5%</td>
</tr>
<tr>
<td>onshore/offshore oil &amp; gas</td>
<td>12.5%</td>
</tr>
<tr>
<td>deepwater offshore oil &amp; gas</td>
<td>16.7%</td>
</tr>
</tbody>
</table>

ROYALTY TYPES:
A royalty is "a share of the product or profit reserved by the grantor [owner]"⁶. In the case of the 1872 Mining Law, the public, or the federal government, is the owner.

In the mining reform debate, two types of royalties have been discussed: net proceeds (also known as "net profit") and net smelter (sometimes referred to as "gross").

A net proceed/net profits royalty is calculated as a percentage of the gross income of a mine minus all the expenses occurred to produce the income.⁷ This type of royalty enables a mining company to deduct their cost of doing business from their income before the royalty is charged. These royalty schemes allow extensive administrative, business and operating deduction, not just those associated with processing mined ore into marketable commodities.

A gross royalty is a value-based royalty charged on the revenue that the mining company receives from the sale of the product.⁸ A net smelter return (NSR) royalty is a modified gross royalty where "the amount
of money which the smelter or refinery pays the mining operator for the mineral product and is usually based on a spot, or current price of the mineral, with deductions for the costs associated with further processing. No deductions are made for operating costs.\textsuperscript{9}

**THE STANDARD ROYALTY IS GROSS/NET SMELTER:**
The hardrock mining industry pays royalties to foreign governments, states and even to other mining companies. These royalties are most often gross or net smelter royalties (value-based).

On a state-by-state level, the majority of states (10 out of 13, or 77\%) charge a gross or net smelter royalty on hardrock minerals.

**U.S. state metal mining royalties:**\textsuperscript{11}

<table>
<thead>
<tr>
<th>state</th>
<th>royalty type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska</td>
<td>net proceeds</td>
</tr>
<tr>
<td>Arizona</td>
<td>gross</td>
</tr>
<tr>
<td>California</td>
<td>gross</td>
</tr>
<tr>
<td>Colorado</td>
<td>varies</td>
</tr>
<tr>
<td>Idaho</td>
<td>varies</td>
</tr>
<tr>
<td>Montana</td>
<td>net smelter</td>
</tr>
<tr>
<td>Nevada</td>
<td>net proceeds</td>
</tr>
<tr>
<td>New Mexico</td>
<td>gross</td>
</tr>
<tr>
<td>Oregon</td>
<td>gross</td>
</tr>
<tr>
<td>South Dakota</td>
<td>gross</td>
</tr>
<tr>
<td>Utah</td>
<td>gross</td>
</tr>
<tr>
<td>Washington</td>
<td>gross</td>
</tr>
<tr>
<td>Wyoming</td>
<td>case by case</td>
</tr>
</tbody>
</table>

Private interests most often charge a gross or net smelter royalty:
A review of annual reports and regulatory filings with the Securities and Exchange Commission show that private interests charge royalties that are gross or net smelter royalties. Of the 47 private royalties reviewed, 35, or 74\%, were some form of gross or net smelter royalty.\textsuperscript{12}

Foreign royalties most often charge gross or net smelter-type royalties:
The World Bank recently surveyed royalties imposed by governments around the world.\textsuperscript{13} Excluding the United States, they surveyed 31 governments. Of those jurisdictions surveyed, 21 out of 31, or 68\%, charged some form of gross or net smelter type royalty.

**NET PROCEEDS ROYALTY CASE STUDIES -- FLEECING THE TAXPAYER**
Two states, Alaska and Nevada, charge net proceeds royalties. Analysis shows that neither provides taxpayers a fair return and if applied to minerals on federal lands such a system would likely fall woefully short of funds necessary to make even an initial dent in addressing the legacy of abandoned mines.

**Nevada:**
The state of Nevada imposes a sliding scale mineral net proceeds tax\textsuperscript{14} on mineral operations\textsuperscript{15}. It ranges from 2 to 5\% depending upon the ratio of net proceeds to gross proceeds. Data published by the state of Nevada\textsuperscript{16} for 2000-2005 show that the mining industry in Nevada sold $16.4 billion worth of minerals.\textsuperscript{17} Despite this large amount of revenue, the industry only paid $158 million, or less than 1\%, into the Nevada treasury.
Half of the time that mining operations in Nevada were subject to this royalty during the 2000-2005 period, they declared NO PROCEEDS, exempting them from the royalty. Over this time period, the price of gold, the primary metal mined in Nevada, increased 160%. 18

Two of the mining operations with the biggest ore bodies in the United States, Newmont's Carlin operation and Barrick's Goldstrike open-pit operation, each declared no profits for 2 of the 6 years profiled. In the years for which they declared zero profit, they collectively declared $1.98 billion in gross proceeds for those two operations.

Alaska:
The state of Alaska imposes a 3% net proceeds royalty on minerals taken from lands owned by the state.

According to the Alaska Department of Natural Resources, the State of Alaska has received $1.2 million over the last 10 years from the net proceeds royalty. 19 Over that time, more than $1.2 billion worth of gold was extracted from mines operating on state lands – meaning less than 0.10% of the value of gold mined was returned to Alaskan taxpayers. 20

**Only a Value-Based Royalty Will Ensure a Fair Return to the Taxpayer, and Fund Substantial Cleanup of Abandoned Mines**

A royalty on public minerals must ensure a fair return to the taxpayer to ensure there is enough money to truly tackle the $50 billion abandoned mine cleanup problem.

Experience with the Alaska and Nevada net proceeds royalty/fee demonstrates that a net proceeds approach will not generate a fair return to the taxpayer. On the other hand, the fact that the vast majority of U.S. states, foreign governments, and private parties charge gross/net smelter type royalties demonstrate that value-based royalties provided a fairer return to the public.

Real and meaningful reform of the 1872 Mining Law must include this type of gross/net smelter royalty, bringing the hardrock mining industry into line with the other extractive industries currently operating on our public lands.

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4. 30 U.S.C. 22
11. Alaska: AK Statute 38.05.212 [http://tinyurl.com/ytpxxa](http://tinyurl.com/ytpxxa)
   Arizona: AZ Rev. Stat 27-234, [http://tinyurl.com/2xj8g](http://tinyurl.com/2xj8g)
   California: CA PUB. RES. CODE § 6895, [http://tinyurl.com/yuxlsh](http://tinyurl.com/yuxlsh)
   Colorado: CO Revised Statutes 36-1-113, [http://tinyurl.com/2df4j](http://tinyurl.com/2df4j)
   Idaho: ID Code 47-404, [http://tinyurl.com/2dnd77](http://tinyurl.com/2dnd77)
Montana MT Code Annotated, 77-3-116 and 77-3-101, http://tinyurl.com/397d2v
New Mexico NM Statute Annotated 19-8-22, http://tinyurl.com/2zvlaf
Oregon GAO-RCED-93-109
South Dakota S.D. Codified laws 5-7-55, http://tinyurl.com/2rbrm8
Utah personal communication with Will Stokes, Utah School Trust Lands Administration, 9/2007
Wyoming personal communication with Diana Wolvin Office of State Lands and Investment, 9/2007

EARTHWORKS original research, 2005 and 2007, accumulated by reviewing the annual reports and regulatory filings of major metal mining companies (as identified by the USGS Mineral Year Book) for mention of royalties either paid to or paid by private interests.


NRS Chapter 362. It is a "tax" and not a "royalty" because the state of Nevada does not own the minerals upon which they impose the fee. The fee applies to all minerals mined within the state of Nevada, whether on public (i.e. federal) or privately owned lands.

The tax is assessed operation by operation, not company by company.

Nevada Department of Taxation, Division of Assessment Standards. 2000-2005 reports are available at http://tax.state.nv.us/DOAS_Archive_page.htm. 2006 data will be published in November. These reports represent the only publicly available hardrock mining fee/royalty data on an operational level. It is more detailed than company annual reports and SEC filings.

Nevada produces 82% of United States' mined gold according to the U.S. Geological Survey. If Nevada were its own country, it would be the fourth largest gold producer in the world. Although Nevada also produces other minerals, most notably copper, the value of its non-gold production is about 1/10th of its gold production.