

# The Ninth Circuit Expands the Mining Law's Extralateral Rights Doctrine to Pegmatite Dikes

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What happens when a miner strikes gold (metaphorically and sometimes literally speaking) under someone else's land? As the Latin maxim states, "cuius est solum, eius est usque ad coelum et ad inferos," which translates to "whoever owns [the] soil, [it] is theirs all the way [up] to Heaven and [down] to Hell."<sup>1</sup> It would seem the answer to who has a right to minerals below their property would be straight forward based on this Latin maxim. However, this is not truly the case. Over the last century, courts have expanded the idea of "extralateral rights" and allowed an adjacent landowner to claim a right to the minerals underneath someone else's land, even if the minerals were outside of the mining landowner's property lines. Beginning in the late nineteenth century and culminating *with Swoboda v. Pala Mining Co.* 844 F.2d 654 (1988), courts (in particular the Ninth Circuit in this case) have slowly chipped away at the idea that a landowner has a rightful claim to everything located below his land.

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1. Jackson Mun. Airport Auth. v. Evans, 191 So. 2d 126, 128 (1966); Samantha J. Hepburn, *Ownership Models for Geological Sequestration: A Comparison of the Emergent Regulatory Models in Australia & the United States*, 44 ENVTL. L. REP. NEWS & ANALYSIS 10310, 10313 (2014).

In the period immediately following its formation, the United States population boomed, increasing over 30% year after year from 1790 to 1870. The population increased ten-fold from approximately 3,929,214 in 1790 to a whopping 38,558,371 in 1870.<sup>2</sup> Following a deadly and costly Civil War, the United States now had the opportunity to turn its attention to recovering economically. After the Civil War, intent on opening up the Western lands for economic development, Congress enacted a series of laws, starting with the Homestead Act and ending with the Mining Law of 1872.<sup>3</sup> A central feature of the Mining Law was the Extralateral Rights Doctrine, which codified the practices of the miners in Virginia City (as described by Mark Twain in *Roughing It*<sup>4</sup>) and California. Under the Extralateral Rights Doctrine, a miner with a valid claim could pursue a vein of ore underground wherever the vein led even across the projections of property lines. This doctrine was applied to a pegmatite structure, which is not a vein, for the first time in 1988 in the Ninth Circuit Court of Appeals case of *Swoboda v. Pala Mining Co.* 844 F.2d 654 (1988); and the Court found that the pegmatite structure, in its entirety, was analogous to a vein of ore.<sup>5</sup> The Court ignored the fact that when the miner in question penetrated across the projection of the property line he was not digging into ore. The United States Geology Survey defines “ore” as naturally occurring material from which a mineral or minerals of economic value can be extracted.<sup>6</sup> However, in *Swoboda*, at that initial stage of penetration the miner went through pure feldspar, which could not be sold at a profit<sup>7</sup> (feldspar is the name given to a group of minerals distinguished by the presence of alumina and silica in their chemistry and make up about 60% of all exposed rock<sup>8</sup>). But about 25 feet across the boundary line, the miner penetrated a huge cavern full of highly profitable tourmaline gemstones.

The Mining Law of 1872 codified practices of western mining men and included an artifact from German and Austrian law from centuries past:

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2. United States Census Bureau, CENSUS90, United States: 1790-1990, <https://www.census.gov/population/censusdata/table-4.pdf> [https://perma.cc/E8V8-ADYK] (last revised Feb. 24, 2020).

3. 30 U.S.C.S. § 26 (LexisNexis 1872). The Mining Law was made to promote the development of the mining resources of the United States.

4. MARK TWAIN, *ROUGHING IT* 196 (Am. Pub. Co., 1872). *Roughing It* is a semi-autobiographical travel literature which recounts Twain’s travel west with Orion Clemens, his brother and Secretary of the Nevada territory.

5. *Swoboda v. Pala Mining Co.*, 844 F.2d 654, 657 (9th Cir. 1988).

6. U.S. Geological Surv., *EarthWord-Ore*, U.S.G.S. (Feb. 15, 2016).

7. *Swoboda*, 844 F.2d at 655.

8. Min. Educ. Coal., *Feldspar*, MINERALS EDUCATION COALITION (Feb. 15, 2016), <https://mineralseducationcoalition.org/minerals-database/feldspar/> [https://perma.cc/JA6T-DXXQ].

the so-called Extralateral Rights Doctrine.<sup>9</sup> The Extralateral Rights Doctrine dates back to at least 1249 and became confirmed as the law of the land by various proclamations and charters of kings and rulers of the region over the years.<sup>10</sup> Under this doctrine, a mining claimant was permitted to follow a “vein of ore” wherever it might lead, underground, even though this might occasion crossing the downward projections of surface property lines.<sup>11</sup> Before *Swoboda*, the doctrine had not been applied to pegmatite structures. The Extralateral Rights Doctrine, codified in 30 U.S.C. § 26, provides claim owners with the exclusive right and possession of all “veins, lodges and ledges, throughout their entire depth” and legally permits owners to encroach upon another’s property boundaries under certain circumstances, as was the case here.<sup>12</sup>

A pegmatite structure is an interesting geological phenomenon representing hot, liquid quartz and feldspar (mainly, which had been “squirted” upwards into the surrounding “country rock,” and then slowly cooled off. Typically, this cooling resulted in an outer zone of mainly feldspar (with quartz, primary constituent of granite) and an inner core of quartz . . . and if one is fortunate, an innermost core of lithia (lithium oxide) and lepidolites with pockets containing gemstones (in the case in question, tourmalines).<sup>13</sup> Lepidolites are the most abundant lithium-bearing mineral found in the world.<sup>14</sup> Lithium minerals were used directly as ore concentrates in ceramics and glass applications. More recently, with the increase in portable electronic devices, lithium is overwhelmingly used in rechargeable battery technology.<sup>15</sup> During World War II, there was an increase in Lithium mining, reaching a peak production of 84,800 units of lithia in 1944.<sup>16</sup> Nowadays, lithium

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9. Wm. E. Colby, *The Extralateral Right: Shall It Be Abolished?*, 4 CAL. L. REV. 361, 363 (1916), doi:10.2307/3474397, [https://www.jstor.org/stable/3474397?seq=2#metadata\\_info\\_tab\\_contents](https://www.jstor.org/stable/3474397?seq=2#metadata_info_tab_contents) [<https://perma.cc/338F-9FGX>].

10. *Id.* at 363–64.

11. 30 U.S.C. § 26.

12. *Swoboda*, 844 F.2d at 656; *see also* 30 U.S.C. § 26.

13. Agnes Diggs, *Tour of Stewart Mine reveals hidden treasures*, S.D. UNION TRIB. (Apr. 17, 2005), <https://www.sandiegouniontribune.com/sdut-tour-of-stewart-mine-reveals-hidden-treasures-2005apr17-story.html> [<https://perma.cc/DRK6-M79F>].

14. W.A. DEER, ET AL., AN INTRODUCTION TO THE ROCK FORMING MINERALS 218 (Longman, 3rd ed. 1966).

15. U.S. Geological Surv., *EarthWord-Ore*, U.S.G.S. (Feb. 15, 2016), <https://www.usgs.gov/news/earthword-%E2%80%93-ore> [<https://perma.cc/PQ3G-VDUV>].

16. James J. Norton & Dorothy McKenney Schlegel, *Lithium resources of North America*, USGS 325, 330 (1955), <https://pubs.er.usgs.gov/publication/b1027G> [<https://perma.cc/GJJ3-H2Y4>].

is considered one of thirty-five “critical” minerals by the United States government.<sup>17</sup> In *Swoboda*, the Court considered a doctrine dating back to the nineteenth century, and contemporaneously analyzed and adopted nineteenth century legal precedent to determine the rights of the parties to precious stones uncovered from the subsurface of real property.<sup>18</sup> Importantly, the court applied the Extralateral Rights Doctrine to a pegmatite dike structure and granted the appellee, Edward Swoboda, the rights to the structure extending upon the subsurface of the Pala Indian Reservation property. The Court in *Swoboda* disposed of the Pala Indians’ claims and applied case law to demonstrate that the pegmatite is analogous to a vein and should be protected by the Extralateral Rights Doctrine.<sup>19</sup>

The facts in *Swoboda* state that the pegmatite was one of the world’s largest, nearly 150 feet thick, dipping some 35 degrees to the west and projecting from the plaintiff’s mining claim (for lithia—a deposit so rich that in 1820 this one mine supplied 70 percent of America’s Lithia). The Appellee, Edward Swoboda, had owned and operated the Stewart Mine (“the Mine”) since 1980.<sup>20</sup> The Mine was comprised of 19.54 acres directly adjacent to and bordering the Pala Indian Reservation (“Appellants”) in San Diego County.<sup>21</sup> Within the boundaries of the Mine owned by Swoboda (and his predecessors in interest), is the apex of a pegmatite dike.<sup>22</sup>

The Mine was originally located in 1898 and until the mid-1920’s, the claim was worked principally to mine lepidolite. On April 26, 1949, the Department of the Interior granted Swoboda’s predecessor-in-interest a mineral patent to the Stewart Mine.<sup>23</sup> Swoboda and his predecessors-in-interest tunneled below the surface of the Pala Indian Reservation, which was located directly adjacent to the Mine.<sup>24</sup> In October 1980, Pala Mining Inc. (“PMI”) then extracted earth from the surface of their property, which ran directly over Swoboda’s tunnel network. Swoboda then sought to prevent further excavation by filing a complaint for damages and injunctive relief. Swoboda provided a moral justification for bringing a suit against PMI while excavating minerals below the Pala land and alleged that “PMI’s

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17. *See supra* note 11.

18. Mining rights were such a popular topic at the time that even future president Herbert Hoover (a mining engineer) and his wife Lou Henry Hoover (a geologist) wrote an English translation of *De re metallica*, a book cataloging the state of the art of mining, refining, and smelting metals, published originally in 1556. *De re metallica*, WIKIPEDIA, [https://en.wikipedia.org/wiki/De\\_re\\_metallica](https://en.wikipedia.org/wiki/De_re_metallica) [https://perma.cc/Z4VA-TZFG].

19. *Swoboda*, 844 F.2d at 657.

20. Swoboda originally acquired the mine in 1968 and reacquired it in 1980. *See Swoboda*, 844 F.2d at 655 n.1.

21. *Id.*

22. *Id.* at 656.

23. *Id.* at 655.

24. *Id.*

activities endangered the lives and safety of any miners or other persons present in the tunnel network.”<sup>25</sup>

The United States District Court appointed a Special Master pursuant to Federal Rule of Civil Procedure 53. Upon examination of the contested issues and the evidence presented by all parties the Special Master found that the pegmatite dike constituted a vein within the meaning of 30 U.S.C.S. 26. The Special Master assessed \$35,000 in actual damages and \$140,000 in punitive damages against the Pala. Pala objected to these findings and filed for its notice of appeal to the Ninth Circuit.<sup>26</sup>

The *Swoboda* Court relied on nineteenth century cases to determine whether the Pala had any rights to the mineral located under their own land. The Ninth Circuit relied on the 1898 United States Supreme Court decision in *Del Monte Mining and Milling Co. v. Last Chance Mining and Milling Co.* 171 U.S. 55 (1898).<sup>27</sup> In *Del Monte*, appellee, Last Chance, held a mining claim on land in which a vein of silver was located. A portion of that silver vein extended below the surface of appellant Del Monte’s land. Being that the portion of the silver vein below Del Monte’s land could be worth a lot of money, a dispute arose between the parties (as expected). In the Court’s analysis in *Del Monte*, the United States Supreme Court determined that, according to U.S. Rev. Stat. § 2322 (now codified in 30 U.S.C. § 26),

[T]he top or apex of [a pegmatite dike] which lies inside of such surface lines extended downward vertically becomes his by virtue of his location, and he may pursue it to any depth beyond his vertical sidelines, although in so doing he enters beneath the surface of other proprietor.<sup>28</sup>

The legal ability to intrude upon subsurface vertical property lines hinges on whether a vein or lode begins on a claim and extends to another. The Court determined that as long as the apex of the lode or vein was within the miner’s surface lines, the miner had the right to pursue the lode or vein throughout its entirety, even if it crossed under another’s property line.<sup>29</sup> The Court believed that if it were to take away the right for a miner to

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25. *Id.*

26. *Id.* at 656.

27. *Id.* at 656 (citing *Del Monte Mining and Milling Co. v. Last Chance Mining and Milling Co.* 171 U.S. 55 (1898)).

28. *Del Monte Mining and Milling Co. v. Last Chance Mining & Milling Co.*, 171 U.S. 55, 89 (1898).

29. *Id.*

follow the lode or vein of an apex within the miner's surface lines, the Court would be taking away all that is of value to the miner.<sup>30</sup>

Now that the Court allowed a miner to pursue a vein or lode below the surface of another's land, what was considered a "lode or vein"? A precise definition of lode or vein has eluded judicial consistency for years and caused the issue of extralateral rights even more ambiguity. As stated by the United States Supreme Court, "[w]hat constitutes lode or vein of mineral matter has been no easy thing to define. In this court no clear definition has been given."<sup>31</sup>

In trying to give a clearer picture to what constitutes a lode or vein, the Ninth Circuit in *Swoboda* looked at ancient case law (which relied on even older case law). The *Iron Silver* Court looked to another jurisdiction in which mining was booming at the time, Nevada, to help give more a precise definition of a "lode or vein." In an 1877 case, Justice Stephen J. Field (Circuit Court of Appeals of Nevada) attempted to give a definition of a lode or vein, stating:

It is difficult to give any definition of the term as understood and used in the acts of Congress, which will not be subject to criticism. A fissure in the earth's crust, an opening in its rocks and strata made by some force of nature, in which the mineral is deposited, would seem to be essential to a lode in the judgment of geologists. But, to the practical miner, the fissure and its walls are only of importance as indicating the boundaries within which he may look for and reasonably expect to find the ore he seeks. *A continuous body of mineralized rock lying within any other well-defined boundaries on the earth's surface and under it, would equally constitute, in his eyes, a lode.* We are of opinion, therefore, that the term as used in the acts of Congress is applicable to any zone or belt of mineralized rock lying within boundaries clearly separating it from the neighboring rock.<sup>32</sup>

Further, the Ninth Circuit in *Swoboda* relied on another nineteenth century court case to define what constituted a lode or vein; the Colorado circuit court case *Stevens v. Williams*, 23 F. Cas. 40 (1879). In *Stevens*, the Court gives a lode or vein a broad definition by stating,

"[i]n short, if there is a general and pervading continuance of this mineral matter with a casual and occasional interruption, but pursuing the same general course, bounded by the same rocky material above and below as far as you can trace that until it breaks off totally and is interrupted for a very large distance, it is a vein of rock or matter."<sup>33</sup>

Therefore, according to *Stevens*, a vein or lode could be non-continuous, interrupted, and "so narrow that only a sheet of paper could be got into"

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30. *Id.* at 91.

31. *Iron Silver Mining Co. v. Cheesman*, 116 U.S. 529, 533 (1886).

32. *Eureka Consol. Min. Co. v. Richmond Min. Co.*, 8 F. Cas. 819, 823 (1877) (emphasis added).

33. *Stevens v. Williams*, 23 F. Cas. 40, 42 (1879).

and still be considered a lode or vein for the purpose of gaining mining rights.<sup>34</sup> The “very large distance” that the *Stevens* court mentions to cut off ownership rights is never given a precise definition and is left vague for future courts (and law review articles) to debate. However, judges in the ancient court cases usually ruled in favor of the miner discovering the apex and seemingly strained to allow said miner to obtain the benefits of having discovered the apex in the first place.

Relying on the *Del Monte* decision, and the proposition that “the top or apex of [a pegmatite dike] which lies inside of such surface lines extended downward vertically” becomes his by virtue of his location, the Ninth Circuit concluded that Swoboda had exclusive possession of the pegmatite dike below the Pala land, but only if it could be determined that the pegmatite dike constituted a “vein or lode.”<sup>35</sup> However, again, the parties in *Swoboda* stipulated to facts which would render the instant argument irrelevant. The parties stipulated that although a body of commercially viable mineral was not continuous, mineral-bearing rock was continuous.<sup>36</sup> Pursuant to the *Iron Silver* and *Eureka* definitions employed by the Court, the continuity of mineral-bearing rocks was all that was necessary to find a vein, permitting Swoboda to extract the minerals reaching across his surface property boundaries.<sup>37</sup>

In *Swoboda*, the parties stipulated that there existed well-defined boundaries to the pegmatite structure, which led the court to acknowledge that a lode or vein existed in accordance with the definition as set forth in *Iron Silver*. Next, the Pala asserted that the lack of continuity of an “unbroken body of commercially viable minerals” defeated the claim that the structure in question met the definition of a lode or vein. However, following the very (very) broad definition of what constitutes a vein or lode in the *Stevens* case, and the vagueness of “interrupted for a very large distance,” Swoboda (more likely the Court itself) easily defeated Pala’s argument that the vein or lode was an unbroken body of viable minerals.

Ultimately, the Court found that appellant Swoboda held possession to extralateral rights permitting intrusion within the boundary lines of the appellee’s claim by finding that the dike was a “vein of mineral matter” as defined by previous nineteenth century United States case law.<sup>38</sup> Additionally,

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34. *Id.*

35. *Swoboda*, 844 F.2d at 654.

36. *Id.* at 654.

37. *Id.* at 657.

38. *Id.*

the question of whether a continuity of an unbroken body of rock containing commercially valuable minerals was considered in the Court's determination and ultimately found to be sufficient in lieu of a continuous unbroken body of viable minerals.<sup>39</sup>

Following the logic from *Swoboda*, the Ninth Circuit seems to grant very wide latitude for a miner to pursue a pegmatite dike that extends beyond their boundaries (at least when adjudicating claims against Indian land rights). By relying on nineteenth century case law, the *Swoboda* Court allowed a miner to pursue a dike into the land of another. The criteria to do so are almost as vague today as they were in the nineteenth century since based on the case law, a miner can pursue a pegmatite dike: whether or not the vein or lode is continuous,<sup>40</sup> whether it contains commercially viable materials or not,<sup>41</sup> and whether the vein or lode is as thick as an elephant or as thin as sheet of paper.<sup>42</sup>

Finally, in addition to the expansive definitions that the Ninth Circuit applied in *Swoboda* that allowed Swoboda the rights to the pegmatite dike below the Pala Indian land, the Ninth Circuit added insult to injury by ruling, "Swoboda's predecessors-in-interest located the Stewart Mine in 1898; the Pala Indians did not receive the patent for the reservation land until 1920."<sup>43</sup> Therefore, "the trust patent for the Pala Indian Reservation does not preclude ownership by Swoboda of extralateral rights in the pegmatite dike vein within the surface of the reservation."<sup>44</sup>

Following *Swoboda*, the Latin maxim "cuius est solum, eius est usque ad coelum et ad inferos," will have to be updated to reflect the current reality—"whoever owns [the] soil, [it] is theirs all the way [up] to Heaven and [down] to Hell" . . . sometimes.

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39. *Id.*

40. *Stevens v. Williams*, 23 F. Cas. 40, 43 (1879).

41. *Eureka Consol. Min. Co. v. Richmond Min. Co.*, 8 F. Cas. 819, 822 (1877).

42. *Stevens*, 23 F. Cas. at 43.

43. *Swoboda*, 844 F.2d at 658; see James J. Norton and Dorothy McKenney Schlegel, *Lithium Resources of North America*, GEOLOGICAL SURV. BULL. 1027-G (Dep't of Interior 1955) ("Production of lithium increased during World War I and reached 11,696 tons in 1920.").

44. *Swoboda*, 844 F.2d at 658.