



UNITED STATES v. HMI LENDERS, L.C.

179 IBLA 117

Decided April 30, 2010



United States Department of the Interior
Office of Hearings and Appeals
Interior Board of Land Appeals
801 N. Quincy St., Suite 300
Arlington, VA 22203

UNITED STATES
v.
HMI LENDERS, L.C.

IBLA 2009-198

Decided April 30, 2010

Appeal from a decision of Administrative Law Judge Harvey Sweitzer declaring mining claim numbers 4-8, 34, and 35 null and void for lack of a discovery of a valuable mineral deposit. CAMC-135154 *et al.*

Affirmed.

1. Administrative Procedure: Burden of Proof--Evidence:
Preponderance--Mining Claims: Contests

For a lode claim to be valid, a vein or other mineralized ore body must be exposed on that claim. Once exposure is made on the surface and/or at depth, geologic inference may then be used to project what is reasonably likely to be found. Expert opinion based on area geology and deductions from established facts may properly be considered in determining whether ore exists in sufficient quality and quantity to justify a prudent man in the expenditure of his means with a reasonable anticipation of developing a valuable mine.

2. Mining Claims: Discovery: Geologic Inference

Geologic inference alone may not be used to establish that gold values at depth are higher than those reflected in surface sampling on the contested claims.

APPEARANCES: Ronald S. George, Esq., Salt Lake City, Utah, for contestee-appellant HMI Lenders, L.C.; Karen D. Glasgow, Esq., Office of the Field Solicitor, U.S. Department of the Interior, Oakland, California, for contestant-appellee the National Park Service.

OPINION BY ADMINISTRATIVE JUDGE KALAVRITINOS

HMI Lenders, L.C. (HMI) has appealed from and petitioned for a stay of the effect of a March 23, 2009, decision of Administrative Law Judge Harvey C. Sweitzer to the extent he declared 7 unpatented lode mining claims, Telegraph Nos. 4-8, 34, and 35 (CAMC-135154, CAMC-135155, CAMC-135157 through CAMC-135159, CAMC-135185, and CAMC-135186), null and void for lack of a discovery of a valuable mineral deposit.¹ For reasons explained below, we find that Judge Sweitzer carefully weighed all the evidence presented at hearing, applied the appropriate legal standards, and made reasoned findings of fact and conclusions of law, which are legally sound and supported by the record. Specifically, we find that Judge Sweitzer did not err in determining that HMI had not met its burden to overcome the Government's presentation of a *prima facie* case² by failing to establish the existence of a discovery of a valuable mineral deposit within the boundaries of each contested claim as of the date of withdrawal—either from evidence of mineralization collected from the disputed claims or from geologic inference drawn principally from evidence originating on three patented claims.³

On appeal before this Board, contestee essentially “revisits arguments presented at the hearing and declares that a different conclusion was warranted, disagreeing with [the ALJ’s] judgment of the weight to be given the evidence presented at hearing.” *United States v. Knipe*, 170 IBLA 161, 167 (2006) (quoting *United States v. Rothbard*, 137 IBLA 159, 163 (1996)). Having reviewed the record and all pleadings, we agree with the thorough analysis of Judge Sweitzer’s decision, and hereby affirm that decision.

¹ HMI does not appeal that part of the decision declaring 5 of the 12 unpatented claims originally contested null and void due to contestee’s relinquishment at hearing. See Hearing Transcript (Tr.) 339.

² HMI does not appeal Judge Sweitzer’s determination that the Government had presented a *prima facie* case establishing the absence of a valid discovery with respect to the seven claims at issue.

³ By Order dated July 16, 2009, the Board denied HMI’s Petition for Stay. Counsel for the United States (contestant) filed a “Response to [HMI’s] Statement of Reasons” on Oct. 5, 2009 (Response). On Oct. 13, 2009, HMI filed a Motion to Allow Reply Memorandum. By Order dated Nov. 23, 2009, the Board granted the motion, directing contestant to file a response within 30 days. The “Response to HMI’s Reply” was filed on Dec. 23, 2009.

I. Background

A. The Claims

The contested, unpatented lode mining claims are located on Federal lands in San Bernardino County, California, approximately 16 miles northeast of Baker, California, within the northwest portion of the Mojave National Preserve (MOJA), which is administered by the National Park Service, U.S. Department of the Interior (NPS).⁴ The claims were withdrawn from mineral location, entry, and patent, subject to valid existing rights, pursuant to section 507 of the California Desert Protection Act of 1994, 16 U.S.C. § 410aaa-47 (2006), effective October 31, 1994.

HMI also controls three mining claims⁵ that were patented in 1982 and are adjacent to contested claim numbers 4 through 6. Mining and exploration activities historically focused on the three patented claims—the South Telegraph, Telegraph, and Telegraph Extension claims. The dominant gold production in this area came from the Telegraph vein, a massive to banded, gold-quartz vein, 3 to 8 feet wide and several hundred feet long.⁶ Tr. 45, 59-139; G-1 at 28. Gold also occurs in the area in cemented, silicified fault and hydrothermal breccias hosted in quartz monzonite. G-1 at 28. Mining shafts, discovery cuts, and drill holes along the strike of the main Telegraph vein bear witness to former active mining on the patented claims that generally had ceased by 1947. *Id.* In 1968, the then-owners undertook a core drilling program, estimating ore reserves at 72,000 tons, averaging 0.51 oz/ton gold and 1/16 oz/ton silver. And during 1981-82, CEMC undertook a small heap leach operation, mining ore from an underground mine on the Telegraph claim and processing it on a heap leach pad located on parts of unpatented Telegraph claim numbers 4, 5, and 7.⁷

⁴ MOJA encompasses approximately 1,419,800 acres in a desert ecosystem between Death Valley and Joshua Tree National Parks. The claims also fall within an area of MOJA specially designated as Formal Desert Tortoise Critical Habitat. They are located within portions of secs. 17-21 of T. 15 N., R. 11 E., San Bernardino Base Line and Meridian, in the Halloran Spring gold mining district. “United States Department of the Interior, National Park Service, Mineral Report,” dated Apr. 3, 2003 (Mineral Report), identified at the hearing as Government’s Exhibit (Ex.) 1 (G-1) at 1, 22-23, 26-27; *see also* Tr. 128.

⁵ Cascade Energy and Materials Corporation (CEMC), HMI’s predecessor in interest and the original contestee, acquired the claims in 1974.

⁶ The vein strikes N. 30° to 40° E. and dips 30° to 50° NW. An aplite dike, 1 to 2 feet thick, located along the footwall of the vein, has the same general strike and dip.

⁷ The Government reports that in *Cascade Energy and Metals Corp. v. Banks*,
(continued...)

However, at the time of the field examination, there were no signs of recent mining activity, and the heap leach facility was in disrepair. *Id.* at 28-29.

Telegraph claim numbers 4 through 8, like the patented claims, are oriented in a northeast-southwest direction along their longest axis. Five of the contested claims, Telegraph claim numbers 4 through 8, are contiguous, and, as stated, claim numbers 4 through 6 are situated adjacent to the three patented claims on the northwest.⁸ See map appended to Mineral Report (G-1, Appx. Plate 2). Limited, small quartz veinlets or “stringers” have been observed within the boundaries of claim numbers 4 through 8, but no mineral production has occurred on them.

Claim numbers 34 and 35 share a common 600-foot boundary and are west of and not contiguous with the other unpatented claims. Prominent exposed quartz veins are found near the shared boundary of claim numbers 34 and 35. ALJ Decision at 6-7; Tr. 55, 97-98, 357-62.

Limited exploration took place on the contested claims in the 1980s, and sometime between 2002 and 2006, without authorization from NPS, a potential investor drilled an exploratory vertical hole on Telegraph claim number 5, about 140 feet from the border of the Telegraph claim. Tr. 78-79, 127-28, 379-82, 502-05; ALJ Decision at 13.⁹ Contestee has never mined the contested claims. G-1 at 30; ALJ Decision at 14.

⁷ (...continued)

896 F.2d 1557, 1565 (10th Cir. 1990) (litigation involving W. David Weston, HMI’s principal agent, whose family-owned company, Interphase Corporation, holds an 80% interest in HMI), the Court noted that the heap leaching operation failed to produce gold. Response at 8 n.1. HMI disputes this, asserting that the court reached this conclusion because the district court clerk lost relevant trial exhibits. See HMI Reply at 5-15, and *Cascade Energy and Metals Corp. v. Banks*, 85 F.3d 640 (unpublished), 1996 WL 15549, *4 (10th Cir. 1996).

⁸ The southeastern border of claim number 4 is adjacent to the patented South Telegraph Extension claim and its northeastern border lies adjacent to claim number 5. The southeastern boundary of claim number 5 borders the Telegraph claim. Claim number 6, to the northeast of claim number 5, shares its southeastern border with the northwestern boundary of the Telegraph Extension claim. Claim numbers 7 and 8 lie northwest of and adjacent to claim numbers 4 and 5, respectively. All of the Telegraph claims are 1,500 feet by 600 feet. See G-1 at 8-13, Appx. Plate 2.

⁹ The drill hole intercepted the highest levels of gold mineralization (0.322 oz./ton) at a depth of 378 feet.

B. *The Mineral Validity Examination*

NPS undertook a mineral investigation to determine whether a discovery of a valuable mineral deposit exists on all 12 of the originally contested Telegraph claims.¹⁰ The initial investigation took place on March 11-13, 2000, and was lead by Mark Arnold, President of American Geological Services, Inc. (AGS) under contract with NPS. Two other AGS geologists participated, Travis Helms, and Dr. Ross Grunwald, along with Gordon Pine and Ted Weasma, NPS. Though invited, contestee was not present. AGS examined the claims, established outcrop locations using the NPS global positioning system and published geologic maps, and prepared a generalized geologic map of the area. G-1 at 30. They sampled surface outcroppings, veins, and prospect pits for locatable mineral occurrences, taking into consideration the area's mining history associated with epithermal processes.¹¹ Tr. 139, 145-49. Mr. Arnold testified that “[a]nywhere we saw signs of potential mineralization, we collected a sample.” *Id.* at 148. He states: “We used our professional judgment looking for veins, shear zones that had any appearance that mineralized fluids may have gone through them.” *Id.* at 149. At the intersection of claim numbers 34 and 35, they found a number of quartz veinlets and an outcrop of an aplite dike with a shaft on its edge, and took a series of continuous channel samples. Assay results for the channel samples showed values that were potential open-pittable grades. Arnold returned on November 13, 2001, to collect samples from each end of the outcrop. *Id.* at 151-53. In total, AGS collected 33 samples on the unpatented claims (22 continuous rock chip channel and 11 composite rock chip samples) for chemical analyses and petrologic descriptions, using multi-element inductively coupled plasma spectroscopy and gravimetric fire assay. Tr. 148-51; G-1 at 36-59. The findings and conclusions of the investigation are presented in the Mineral Report.

Only samples from the area between claim numbers 34 and 35 evidenced potentially economic grade concentrations of gold ore. In other words, out of the seven claims in dispute, this “represent[s] the only area with sufficient data to formulate a resource estimate without resorting to geological inferences.” ALJ Decision at 53. The economic calculations in the mineral report focus on this

¹⁰ Pursuant to NPS mining regulations, before mining may commence a claimant must have an approved Plan of Operations, an approved environmental report, and a determination of valid existing rights. 36 C.F.R. §§ 9.7(b), 9.9(a), (b)(9).

¹¹ Despite numerous requests, by the time of the field examination, contestee had not provided NPS a detailed claim map, showing the locations of discovery points or of best projected mineralization. Tr. 142-48; G-1 at 4-5, 65-66, 71-73; ALJ Decision at 5, 22.

mineralization. G-1 at 65-69. The examiners also analyzed data from the Telegraph mine discussed in a 1988 masters thesis by Peter C. Lange (Tr. 8-19), concluding that “[i]n general the gold values [detected in Lange’s samples] were low, but somewhat higher [than] those values from the samples collected as part of this investigation.” *Id.* at 66.¹²

Arnold modeled four separate resource blocks along the length of the ore body using the “½ distance method,” or “zone of influence rule,” by which he projected the grade and width as extending half the distance between the sample points with an equivalent depth.¹³ G-1 at 67-68. Using this model, Arnold estimated that the total ore reserve along the boundary of claim numbers 34 and 35 was a relatively small resource of 3,152 tons with 104 total ounces of gold. *Id.* Relying on gold prices of \$391.69 per ounce at the date of withdrawal and \$390.00 per ounce at the time of the hearing, and on surface, underground, and milling cost models prepared by Western Mine Engineering (WME), Arnold determined that the revenue per ton from mining this vein would be less than the costs required to operate either a surface or underground mining operation, that is, that the gold ore located on the only disputed claims with any potentially economic grade concentrations—claim numbers 34 and 35—could not be economically mined. He thus concluded there was no evidence of sufficient quantity or quality of mineralization on the contested claims that would support a discovery under the mining laws. *Id.* at 69-70.

C. *The Contest*

On March 8, 2004, the Bureau of Land Management (BLM) filed a Complaint on behalf of the NPS against CEMC contesting 12 mining claims (Telegraph Nos. 4-8, 19-20, 32-35, and 80). The Government alleged that minerals have not been found within those claims in sufficient quantities and/or of adequate quality to constitute a discovery of a valuable mineral deposit, and that the lands are non-mineral in

¹² The Mineral Report notes that Lange’s analysis was in support of a master’s thesis on the mineralization of the Telegraph Mine, not for the purposes of an economic evaluation of the unpatented claims, and that Lange’s study does not describe the samples, including how they were collected, nor identify what analytical methods were used and which laboratory conducted the analysis. G-1 at 65-66.

¹³ More specifically, ore blocks A and B had a grade of 0.025 ounces of gold per ton, based upon sample T-033, a width of 5 feet, a length of 21.5 feet, and a depth of 21.5 feet. Arnold assigned ore blocks C and D a grade of 0.034 ounces of gold per ton based upon the weighted average of four samples, T-006 through T-009, taken across a channel perpendicular to the widest mineralized zone along the outcropping. G-1 at 67-78; ALJ Decision at 18.

character, and therefore requested that the mining claims be declared null and void. Complaint at ¶ 5. In its Answer, filed April 1, 2004, CEMC asserted the validity of the mining claims because “minerals have been found within the limits of the claim or,” employing geologic inference, “by virtue of the down dip extension of the mineralized vein” in sufficient quantities and/or qualities to constitute a valid discovery of a valuable mineral deposit. Contest Answer at 2.¹⁴

The hearing was held in Salt Lake City, Utah, on January 8 through 11, 2008. According to Lange and Weston, testifying for HMI, we should assume that the surface veinlets or stringers are interconnected with the subsurface mineralization intercepted at depth because they were formed as part of the same epithermal system. Tr. 71-74, 327-29. On that basis, they assert that an “area-wide average,” derived from sampling performed on the patented claims, should be used to project the grade of ore at depth beneath the disputed claims. Statement of Reasons (SOR) at 20, 23, 153; Tr. 504-05; Ex. R; Ex. LL.

Arnold and Weasma served as the Government’s expert witnesses, and testified that the mineral report accurately reflected the status of the unpatented claims, and that no discovery had been made under the Mining Laws. Tr. 116-17, 129-30, 148-55. The Government averred that HMI took too liberal an approach to the doctrine of geologic inference, projecting resource estimates that cannot be reasonably extrapolated from the evidence. It further asserted that HMI’s calculations offered in support of profitability rest on erroneous and unreasonable assumptions.

II. *Judge Sweitzer’s Decision*

A. *Prima Facie Case*

The Mining Law of 1872, as amended, permits location of valuable mineral deposits on the public lands of the United States. *See generally* 30 U.S.C. §§ 21-47 (2006). Lode claims may be located along veins or lodes of “rock in place bearing gold, silver . . . or other valuable deposits” 30 U.S.C. § 23 (2006). A mining claim can only be validated by the discovery of a valuable mineral deposit. *Id.* § 22 (2006); *Best v. Humboldt Placer Mining Co.*, 371 U.S. 334, 335 (1963); *Cameron v. United States*, 252 U.S. 450, 456 (1920); *Barrows v. Hickel*, 447 F.2d 80, 82 (9th Cir. 1971); *United States v. Dwyer*, 175 IBLA 100, 111 (2008). The United States, acting through the Secretary of the Interior and his or her delegates, retains the authority,

¹⁴ CEMC identified HMI as a party in interest to the claims, based upon HMI’s payment of all annual maintenance fees for the claims, and on Feb. 27, 2006, filed a motion to change the case caption to reflect that on Oct. 20, 2005, CEMC conveyed to HMI its interest in the subject claims via quit claim deed.

under the mining laws, to determine for itself, at any time prior to patent, whether the claimant has, in fact, discovered a valuable mineral deposit. *E.g., United States v. Miller*, 165 IBLA 342, 354 (2005).

As Judge Sweitzer explained, when the Government contests the validity of a mining claim on the basis that the claimant has not discovered a valuable mineral deposit, it bears only the burden of establishing a *prima facie* case of invalidity, whereupon the burden shifts to the contestee (claimant) to overcome that case by a preponderance of the evidence. *Hallenbeck v. Kleppe*, 590 F.2d 852, 856 (10th Cir. 1979); *United States v. Newman*, 178 IBLA 174, 181 (2009); *United States v. Carlwood Development, Inc.*, 177 IBLA 119, 128-29 (2009); *United States v. Dwyer*, 175 IBLA at 112; *United States v. Winkley*, 160 IBLA 126, 142-43 (2003); *United States v. LeFavre*, 138 IBLA 60, 67 (1997).

Examining the record and other evidence produced at hearing, Judge Sweitzer found that the Government's mineral examiner reasonably determined that only claim numbers 34 and 35 showed any potential volume of mineralization. ALJ Decision at 21, 53; Tr. 153. He then found that the Government's mineral examiner had created a reasonable resource model to evaluate the economics of the relatively small ore body modeled on those claims. Judge Sweitzer found that the opinions of the Government's mineral examiners rest upon probative evidence obtained in the field investigations and analyses, and thus concluded that the Government had presented a *prima facie* case establishing the absence of a valid discovery with respect to the seven disputed claims. *Id.* at 24-25. HMI does not appeal this determination.

B. HMI's Burden to Establish the Existence of a Discovery

Accordingly, the burden shifted to the contestee to overcome the Government's *prima facie* case by preponderate evidence establishing the existence of a discovery of valuable mineral deposits (*i.e.*, ore of such quantity and quality as can be mined at a profit) on the seven claims. *Hallenbeck v. Kleppe*, 590 F.2d at 856; *United States v. Newman*, 178 IBLA at 183 (citing *United States v. Pass Minerals, Inc.*, 168 IBLA 115, 123 (2006)); *United States v. Whitney*, 51 IBLA 73, 84 (1980).

Judge Sweitzer found that evidence of mineralization is inadequate to model any additional resources on contiguous claim numbers 4 through 8, and does not significantly alter the resource model created by the Government for claim numbers 34 and 35. Addressing issues regarding the availability and scope of geologic inference in the present case, Judge Sweitzer turned to the threshold issue of whether a physical exposure of mineralization existed at the time of withdrawal, stating that Lange had adequately established that the quartz veinlets or "stringers" on the surface that contain detectable occurrences of gold were likely formed by the same epithermal

boiling process that led to mineralization of the main Telegraph vein underlying the patented South Telegraph, Telegraph, and Telegraph Extension claims. ALJ Decision at 36.¹⁵ Having given HMI the benefit of the doubt that a physical exposure existed pre-withdrawal, he then addressed whether HMI had established continuity of values beyond the physically exposed area by geologic inference. Relying on *United States v. Feezor*, 130 IBLA 146 (1994), Judge Sweitzer explained that a requirement for use of geologic inference is that “demonstrated values have been high and relatively consistent.” ALJ Decision at 37 (quoting 130 IBLA at 190). Applying the principle that sole reliance on geologic inference is insufficient to establish the grade and quantity of mineralization at depth, Judge Sweitzer determined that geologic inference cannot be used to establish a discovery on any of the unpatented claims, since HMI did not make that demonstration, having failed to show either any consistency in the grade of gold in the main vein or any relationship between average gold values on the patented claims and the actual gold values encountered at depth on the unpatented claims. *See id.* at 30-32, 51. Judge Sweitzer reached this conclusion after making several determinations, including:

(1) Lange’s testimony advocating the use of geologic inference to project the continuity of a specific grade to depths below the unpatented claims is not supported by the record or his own thesis, in which he identifies the mineralization along the Telegraph vein as of “spotty and erratic grade,” describing potential differences in the grade at depth depending upon the stage of mineralization. ALJ Decision at 42-44.

(2) Lange’s depth model alone does not sufficiently establish the depth of mineralization beneath each of the unpatented claims such that development of an underground mining operation to a uniform depth of 1,500 feet would be justified. *Id.* at 40-42.

(3) Contestee failed to establish an actual correlation between the grade of mineralization on the patented claims and those values disclosed by drilling at depth on the unpatented claims. ALJ Decision at 44-48.

(4) “[T]here is a distinct difference between data that would justify a prudent individual to engage in further exploration and evidence which would justify the commencement of work to develop a paying mine.” ALJ Decision at 40. A person of ordinary prudence would not be justified in concluding that a reasonable prospect of success in developing a paying mine still exists on any of the unpatented claims. ALJ Decision at 48-50.

¹⁵ Judge Sweitzer did not determine that the veinlets were interconnected with the Telegraph vein, as HMI asserts.

(5) The highest gold values reported by HMI for claim numbers 34 and 35 are taken from a pile of loose material on a mine dump, with no evidence of the origin of the material or the dimensions of the vein from which it was taken. ALJ Decision at 51. Therefore, they are not probative of the existence of a mineral deposit in place and cannot be used to establish the quantity or quality of mineralization in the area of Telegraph claim numbers 34 and 35. *Id.* Judge Sweitzer ultimately determined that, “even assuming that the threshold requirement of an exposure on each claim is satisfied, this Decision finds that reasonable extrapolations from the geological evidence do not support the projected depths and grades advocated by the Contestee.” *Id.* at 26. Consequently, Judge Sweitzer found that contestee had not met its burden of demonstrating a valuable mineral discovery.

III. Analysis

According to contestee’s theory of discovery, the main Telegraph vein, located on the patented claims, is a valuable mineral deposit that extends under the unpatented claims, and an “area-wide average,” derived from sampling performed on the patented claims, should be used to project the grade of ore at depth beneath the disputed claims. SOR at 20-23, 153; Tr. 504-05; Ex. R; Ex. LL. However, as Judge Sweitzer correctly stated,

mere proximity to the three patented claims does not establish that mineralization on the disputed claims is valuable. The Contestee must prove that sound geological evidence supports averaging the assay values from the three patented claims and then projecting those average assay values to significant depths below each of the disputed claims.

ALJ Decision at 42-43.

For lode mining claims, “there must be evidence of continuous mineralization along the course of a vein or lode; the mere showing of disconnected pods of mineral concentration, even of high values, do not satisfy the test.” *United States v. Newman*, 178 IBLA at 183 (quoting *United States v. Whitney*, 51 IBLA at 85); accord *United States v. Cook*, 71 IBLA 268, 279 (1983); *United States v. Wells*, 69 IBLA 363, 366 (1983); see *United States v. Martinek*, 166 IBLA 347, 417 (2005). Proof of both quantity and consistent quality is crucial to establish the existence of a valuable mineral deposit. *United States v. Winkley*, 160 IBLA at 145 (citing *United States v. Crowley*, 124 IBLA 374, 385 (1992)). In addition, where a claim is located on land withdrawn from mineral entry, a claim must be supported by a discovery of a valuable mineral deposit at the time of withdrawal as well as at the time of the contest hearing. *Hjelvik v. Babbitt*, 198 F.3d 1072, 1074 (9th Cir. 1999); *United States v. Wigglesworth*, 178 IBLA 51, 53 (2009).

Because data for the disputed claims is very limited, HMI attempted to use geologic inference to project, principally from the epithermal characteristics of the veinlets on the disputed claims and data and analysis from the three patented claims, the depth, grade, and width of mineralization beneath all seven claims at issue. On that basis, HMI posited the existence of a significant underground ore body, which, it concluded, can be profitably mined.

[1] It is well settled that geologic inference may not be substituted for a showing of a valuable mineral deposit within the boundaries of each mining claim in question. *United States v. Boucher*, 147 IBLA 236, 241-42 (1999). For a lode claim to be valid, a vein or other mineralized ore body must be exposed on that claim. *United States v. Miller*, 165 IBLA at 355 (citing *United States v. Lehmann*, 161 IBLA 40, 92-93 (2004), *aff'd sub nom. Lehmann & Associates of Montana, Inc. v. Salazar*, 602 F. Supp.2d 146 (D.D.C. 2009), *appeal filed* No. 09-5148 (D.C. Cir. Apr. 24, 2009)). Once exposure is made on the surface and/or at depth, geologic inference may then be used to project what is reasonably likely to be found (*United States v. Newman*, 178 IBLA at 183-84 and cases cited), “in accordance with sound geologic principles” *United States v. Clouser*, 144 IBLA 110, 115 (1998) (citation omitted). Where mineral values have been physically disclosed on each lode claim, expert opinion based on area geology and deductions from established facts may properly be considered in determining whether ore exists in sufficient quality and quantity to justify a prudent man in the expenditure of his means with a reasonable anticipation of developing a valuable mine. *United States v. Newman*, 178 IBLA at 183-84, and cases cited; *see also United States v. Dwyer*, 175 IBLA at 111, 120.

[2] Geologic inference alone, however, may not be used to establish that gold values at depth are higher than those reflected in surface sampling. *United States v. Newman*, 178 IBLA at 183-84 (quoting *United States v. Miller*, 165 IBLA at 355-56)). “Mineral values must be physically disclosed before they may be projected by geologic inference.” *United States v. Clouser*, 144 IBLA at 116.

According to HMI’s theory of discovery, the veinlets exposed on the surface of the disputed claims were sufficient to permit the use of geologic inference to project “the qualitative and quantitative nature of the vein below the surface and the interconnection of the veinlets as part of the Telegraph vein.” Contestee’s Response to Government’s Post-Hearing Brief at 27.¹⁶ Specifically, HMI projects that its discovery

¹⁶ Since it was shown that the main vein and all veinlets were part of the same epithermal boiling system it is conclusive that they are all interconnected and constitute the same vein. . . . Once it is conceded
(continued...)

on claim numbers 4 through 8 consists of a four to five foot-wide subsurface vein, which down-dips at an average vein dip angle of 45° from the main Telegraph fault and extends beneath the unpatented claims to a depth of 1,500 feet,¹⁷ with an average grade of 0.48 ounces of gold per ton. *Id.* at 8, 28-32. It proposes to mine the gold through open pit mining on the three patented claims and underground mining beneath claim numbers 4 through 8.¹⁸

As to the second group of claims, numbers 34 and 35, HMI asserts that the vein material of 10 feet by 100 feet that outcrops and has its apex on the two claims is part of the same epithermal boiling system that created the values in the Telegraph vein, and cites Lange for the theory that they are interconnected with the main Telegraph vein, extending to a depth of 1,500 feet. Contestee's Response to Government's Post-Hearing Brief at 32; Tr. 420-24. HMI claims that it can profitably mine this material using a combination of open-pit and underground mining. Contestee's Response to Government's Post-Hearing Brief at 32-34. HMI asserts the same arguments and theories in this appeal.

In both its SOR and its subsequent Reply to the Government's Answer, HMI spends an extraordinary amount of time arguing the existence of a valuable deposit on the *patented* claims, which, HMI then argues, extends beneath the disputed

¹⁶ (...continued)

that the telegraph mine is an epithermal gold deposit it is inescapable that the main vein and veinlets are interconnected and all part of the same vein. This is true even though the veinlets are very likely to have lower values than the main vein as explained by Mr. Weston. Contestee's Response to Government's Post-Hearing Brief at 9.

¹⁷ HMI bases this on "a vein strike distance of 3300 feet (South Telegraph 600 feet, Telegraph 1,500 feet, Telegraph Extension 1,200 feet). Contestee's Response to Government's Post-Hearing Brief at 18-20, 28. However, as Judge Sweitzer points out, "HMI assumes an overly-generous strike length in its calculations," and even its own witnesses identified a shorter 2,000-foot exposure length in their reports. ALJ Decision at 41.

¹⁸ Regarding potential profitability of mining operations, HMI asserts that "[t]he economic analysis is accurate as presented above if the underlying assumptions are accurate," and claims that "[t]he underlying assumptions were supported by the record as being accurate, so the analysis of profitability presented above is accurate." Contestee's Response to Government's Post-Hearing Brief at 34. Judge Sweitzer reasonably analyzed those assumptions and found them unsupportable. HMI fails to show error in that determination.

unpatented claims at deep depths, based on HMI's geologic model. HMI repeatedly insists that its evidence is uncontroverted, that the Government introduced no contrary evidence, and that the propositions it asserts are established facts.

Whether a valuable mineral discovery still exists today on the patented claims is largely beside the point. At times past, at least, such a deposit unquestionably did exist. The claims were patented long ago, and the mine operated for a number of years. The status of those claims is not in dispute. But assuming, *arguendo*, that a valuable deposit still exists on the patented claims, the question is whether HMI has shown by a preponderance of the evidence that a valuable deposit extends under the unpatented and disputed claims.

Cutting through the fog generated by more than 180 pages of sometimes confusing SOR and Reply, the foremost problem with HMI's argument is that it demands that its highly optimistic geological speculations be treated as established fact. The burden of proof, which a contestee must meet to overcome a *prima facie* case of invalidity cannot be met by speculative arguments, even though the speculation may not be facially absurd. As the Court of Appeals for the Ninth Circuit held in *Henault Mining Co. v. Tysk*, 419 F.2d 766 (9th Cir. 1969), a case with facts very similar to the instant case:

No vein or lode containing valuable mineral deposits has yet been discovered. The dikes that have been discovered through outcroppings simply constitute an indication that a vein or lode, yet unexposed, may exist at depth. *A reasonable prediction that valuable minerals exist at depth will not suffice as a 'discovery' where the existence of these minerals has not been physically established.*

419 F.2d at 768 (emphasis added) (footnote omitted).

For geologic inference to be valid and truly probative of the continuity of mineral values beyond what has been physically exposed, it must, as Judge Sweitzer correctly explained, be based on a demonstration of high and relatively consistent mineral values that have been physically exposed. Nowhere has HMI made any such showing. In the instant case, it is plain from the record that such mineral values as have been exposed on the unpatented claims are, in the words of *Feezor*, "isolated and erratic" and "incapable of giving rise to an inference that better values exist someplace on the claim." 130 IBLA at 150.¹⁹

¹⁹ See also BLM Response to SOR at 17-19.

Moreover, speculative assertions do not become preponderant evidence simply because the Government does not actively *disprove* the speculation. Theoretical arguments do not shift the burden of proof back to the Government to prove the absence of a valuable mineral deposit.

It is theoretically possible, of course, that HMI's geologic model is basically accurate. But the record does not contain facts or evidence to show that it is. The apparent reality in this case is that no one has any real grasp on whether gold deposits that could be economically recoverable underlie the disputed claims in the specific areas and at the depths and in the concentration that HMI projects. It is possible that they do. It is possible that a prudent operator or investor might consider further exploration to be justified based on HMI's geologic theory. But it is well established that

[e]vidence of mineralization which may justify further exploration in hope of finding a valuable mineral deposit is not synonymous with evidence of mineralization which will justify the expenditure of labor and money with a reasonable prospect of success in developing a valuable mine. Only the latter constitutes discovery.

United States v. Blue Bell Gold Mining Co., 17 IBLA 182, 184 (1974), *aff'd*, No. C-74-698-S (W.D. Wash. Sept. 18, 1975) (citations omitted).²⁰ Notably, Lange himself acknowledged that the purpose of his thesis was “for the use as a future exploration tool” and that he has “a statistical analysis which can be used, once again, as an exploration tool for anomalous values of gold and as a target for future work in those areas where you find anomalous values of gold.” Tr. 87, 90.

IV. Conclusion

To succeed in its theory of discovery, HMI bore the burden to prove that the main Telegraph vein contained a valuable mineral deposit, and that the valuable mineral deposit ran from the patented claims to the unpatented claims. Judge Sweitzer's careful and detailed analysis, supported by record evidence and the law, concluded that HMI failed to carry that burden. On appeal, HMI, as the party appealing, has the burden of showing error in the ALJ's decision. *United States v.*

²⁰ See, e.g., *Barton v. Morton*, 498 F.2d 288, 290-91 (9th Cir. 1974); *Henault Mining Co. v. Tysk*, 419 F.2d at 769; *Converse v. Udall*, 399 F.2d 616, 623 (9th Cir. 1968); *United States v. Bagwell*, 143 IBLA 375, 393 (1998); *United States v. Downs*, 61 IBLA 251, 254 (1982); *United States v. Marion*, 37 IBLA 68, 72 n.3 (1978); *United States v. Rigg*, 16 IBLA 385, 389 (1974).

Dwyer, 175 IBLA at 112 (citing *United States v. Pass Minerals, Inc.*, 168 IBLA at 149, and cases cited). It has likewise failed to meet that burden. We have reviewed the decision of the ALJ and determined that it is consistent with law and that conclusions regarding evidence are consistent with the facts of record. See *U.S. v. Pitkin Iron Corp.*, 170 IBLA 352, 372 (2006).

Therefore, pursuant to the authority delegated to the Board of Land Appeals by the Secretary of the Interior, 43 C.F.R. § 4.1, the March 23, 2009, decision by Administrative Law Judge Sweitzer is affirmed.

_____/s/_____
Christina S. Kalavritinos
Administrative Judge

I concur:

_____/s/_____
Geoffrey Heath
Administrative Judge