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NOTES

URANIUM AND ITS LEGAL IMPLICATIONS IN MONTANA

This Note is designed to highlight legal ramifications of uranium development in Montana and to provide a convenient starting point for research on questions relative thereto. All phases—from exploration to marketing—will be considered and special attention will be paid to location under Montana and federal laws.

The uranium boom in Montana is gaining momentum. Atomic Energy Commission records reveal that commercial grade uranium ore has been produced in Big Horn, Broadwater, Carbon, Chouteau, Jefferson, and Madison counties.¹

EXPLORATION

Uranium is where you find it. Geologists are unable to predict accurately where it may or may not be found.² Use of radiation detection instruments is therefore fundamental to uranium prospecting. Two types in general use are the Geiger counter and the scintillation counter; both are designed to measure radioactivity.³ The amount of radioactive ore, the richness of the ore, the amount of overburden, and the distance of the counter from the surface affect the counter's accuracy in detecting uranium bearing minerals. Uranium ores can rarely be detected under more than two feet of overburden.

The Doctrine of Pedis Possessio

A prospector's rights before discovery to explore and prospect must be protected in some measure to prevent breaches of the peace. To supply this protection courts have developed the doctrine of "pedis possessio."⁴ The United States Supreme Court has stated:

[U]pon the public domain a miner may hold the place in which he may be working against all others having no better right, and while he remains in possession, diligently working toward discovery, is entitled—at least for a reasonable time—to be protected against forcible, fraudulent, and clandestine intrusions upon his possession. . . .⁵

Under this doctrine the Court has recognized that the possession of the prior locator might be such as to entitle him to maintain an action of trespass against one who entered without any shadow of right.⁶ The application of this doctrine has not been clearly defined by the Supreme Court.

¹Letter from Cecil R. Reneau of the AEC to the writer, dated December 4, 1956.

²A very useful booklet, "Prospecting for Uranium," published by the United States Atomic Energy Commission and the United States Geological Survey may be obtained from the United States Government Printing Office, Washington 25, D. C.—price fifty-five cents. This booklet contains information on uranium minerals and where they are found, tests for uranium, prospecting instruments, selling procedures, and a general insight into laws and regulations governing location of claims on public lands.

³Commercial establishments manufacturing these instruments will give useful information as to the operative qualities of their instruments. Selection will depend upon the use the buyer intends to make of a particular instrument.

⁴See generally Waldeck, *Discovery Requirements and Rights Prior to Discovery on Uranium Claims on the Colorado Plateau*, 27 *Rocky Mt. L. Rev.* 404 (1954).

⁵*Union Oil Co. v. Smith*, 249 U.S. 337, 346-347 (1919).

⁶*Belk v. Meagher*, 104 U.S. 279 (1881), *aff'd* 3 *Mont.* 65 (1878) (however actual possession of the prior locator was not present in this case).

Montana has limited the doctrine of *pedis possessio* by affording protection to the prospector only as to land actually underfoot. The presence of a prospector upon a claim without an actual discovery would not prevent another prospector from making an adverse location upon parts of the claim not actually "underfoot" of the first prospector.⁷

LOCATION

Thirty-seven percent of Montana is composed of public lands. It is on these lands that location may be made.⁸ For the valid location of a mineral claim there must be compliance with appropriate Montana⁹ and federal¹⁰ statutes.¹¹ The mining law term "location" refers to the act of appropriating a mining claim following established rules,¹² or it may mean the parcel of land marked out on the ground.¹³ There are two types of locations—lode and placer—the discovery and location requirements for which are nearly identical.¹⁴ A "lode claim" may be described as a claim that

⁷*Gemmel v. Swain*, 28 Mont. 331, 72 Pac. 662 (1903) (court refused to enjoin "trespass" of defendants on basis that prospector's rights are confined to the ground in his actual possession).

⁸Federal land withdrawals for military reservations, parks, national forests, power sites and other purposes can be found by consulting the FEDERAL REGISTER or records of the district Land Office of the Bureau of Land Management (1245 North 29th St., Billings, Montana). "Mining location on withdrawn or reserved lands depends upon the kind of withdrawal. Some are qualified for mineral location (refer to P. L. 359—power site withdrawals), some for mineral leasing (refer to 43 CFR 191, 194, 196, etc.) and some are ineligible for any form of entry. This office does not maintain a categorical list or register of all withdrawn or reserved lands in the State of Montana. However, we are able, in response to a request concerning a specific tract of land, to give its exact status." Letter from R. D. Nielson, State Supervisor, Bureau of Land Management, to the writer, November 30, 1956. The County Clerk and Recorder's records will reveal whether a prior location has effectively withdrawn the land. Prior to passage of the Multiple Mineral Development Act, 68 STAT. 708-717 (1954), 30 U.S.C.A. §§ 521-531 (Supp. 1956), oil and gas or other mineral leases under the Mineral Lands Leasing Act of 1920, 41 STAT. 437 (1920), 30 U.S.C. §§ 181-194 (1952), segregated the land under lease from mineral entry. Under the Multiple Mineral Development Act the same land can be both located and leased so far as the two uses are compatible. See Bloomenthal, *Multiple Mineral Development on the Public Domain*, 9 Wyo. L.J. 139 (1955).

⁹REVISED CODES OF MONTANA, 1947 §§ 50-701 to 716 (hereinafter the REVISED CODES OF MONTANA will be cited as R.C.M.).

¹⁰30 U.S.C. §§ 21-54 (1952).

¹¹*Butte City Water Co. v. Baker*, 196 U.S. 119 (1905), *aff'g* 28 Mont. 222, 72 Pac. 617 (1903); *Creede & Cripple Creek Min. Co. v. Uinta Tunnel Co.*, 196 U.S. 337 (1905) (only state laws consistent with laws of the United States are applicable to the location of mining claims and recording thereof); *Erhardt v. Boaro*, 113 U.S. 527 (1885); *United States v. Sherman*, 288 Fed. 497 (8th Cir. 1923) (state statutes may require more than federal law and, if so, compliance therewith is required); *Purdum v. Laddin*, 23 Mont. 387, 59 Pac. 153 (1899); *O'Donnell v. Glenn*, 8 Mont. 248, 19 Pac. 302 (1888).

¹²*Del Monte Min. Co. v. Last Chance Min. Co.*, 171 U.S. 55 (1898); *Hickey v. Anaconda Copper Min. Co.*, 33 Mont. 46, 63, 81 Pac. 806, 811 (1905) (held, location includes all the acts beginning with discovery and terminating with filing of record the declaratory statement); MORRISON, *MINING RIGHTS* 25 (16th ed. 1936); 2 LINDLEY, *MINES* § 327 (3d ed. 1914). Locations cannot be more than 1500 feet in length by 600 feet in width. REV. STAT. § 2320 (1875), 30 U.S.C. § 23 (1952).

¹³*Del Monte Min. Co. v. Last Chance Min. Co.*, 171 U.S. 55 (1898); *St. Louis Smelting v. Kemp*, 104 U.S. 636 (1881).

¹⁴Placer locations must conform to legal subdivisions of public lands where the lands have been previously surveyed by the United States, and where such land is unsurveyed the placer claims must conform as near as practicable to the rectangular subdivision system of United States surveys. 26 STAT. 1097 (1891), 30 U.S.C. § 35 (1952); 43 C.F.R. § 185.28 (1954). Most of Montana has been surveyed with the exception of some high mountainous areas in western Montana; upon request the Land Office will give the status of a specific tract of land. Letter from R. D. Nielson,

embraces one or more continuous veins, lodes, or ledges of mineral lying within well defined seams or fissures in the surrounding rock.¹⁵ A "placer claim" is one wherein the valuable mineral is found not in veins, lodes, or ledges within the rock, but is in a loose condition in the softer materials that cover the surface of the earth.¹⁶ There is no limitation upon the number of locations that an individual can make in a given area so long as each location is supported by a discovery thereon.¹⁷

The foregoing definitions raise the question whether uranium is subject to location as a lode claim or as a placer claim, or both. This is important in view of the statement in *Cole v. Ralph*¹⁸ that: "A placer discovery will not sustain a lode location, nor a lode discovery a placer location." The distinction there adopted is that if the deposit occurs in rock in place it is a lode; all deposits of minerals not in place are placers.¹⁹ Therefore it would seem that the *form* of the uranium deposit determines whether it is to be located as a lode or placer.²⁰

Locating a claim will enable the locator to obtain a patent (a fee in both surface and minerals),²¹ but location alone, prior to patent, creates an

State Supervisor, Bureau of Land Management, to the writer, Nov. 30, 1956. A divergence of authority exists with regard to whether this requirement obviates the necessity of marking a placer claim on the ground. That the ground markings are necessary to a valid claim, see *Saxton v. Perry*, 47 Colo. 263, 107 Pac. 281 (1910); *cf. MORRISON, MINING RIGHTS* 266 (16th ed. 1936). *Contra*, *Pidgeon v. Lamb*, 133 Cal. App. 342, 24 P.2d 206 (1933).

¹⁵*Butte & Boston Min. Co. v. Lexington*, 23 Mont. 177, 58 Pac. 111 (1899).

¹⁶*United States v. Iron Silver Min. Co.*, 128 U.S. 673 (1888).

¹⁷*United States v. California Midway Oil Co.*, 259 Fed. 343 (S.D. Cal. 1919), *aff'd* 279 Fed. 516 (9th Cir. 1922); *see St. Louis Smelting Co. v. Kemp*, 104 U.S. 636 (1881). But, any device to enable one person to acquire more than one location by one discovery is void. *United States v. Brookshire Oil Co.*, 242 Fed. 718 (S.D. Cal. 1917); *Durant v. Corbin*, 94 Fed. 382 (C.C.E.D. Wash. 1899) (using friend's names as locators). With regard to a placer location a maximum of 160 acres on one discovery may be located by a proper association of eight persons (the interest of each cannot exceed twenty acres). REV. STAT. § 2330 (1875), 30 U.S.C. § 36 (1952); *Rooney v. Barnette*, 200 Fed. 700 (9th Cir. 1912); *McDonald v. Montana Wood Co.*, 14 Mont. 88, 92, 35 Pac. 668, 669 (1894); 2 LINDLEY, MINES § 438 (3d ed. 1914).

¹⁸252 U.S. 286, 295 (1920).

¹⁹*See also* 2 LINDLEY, MINES § 419 (3d ed. 1914). An old channel gravel bed though having well defined enclosing rocks and a dip or pitch is a placer and not a lode. *Gregory v. Pershbaker*, 73 Cal. 109, 14 Pac. 401 (1887). It is appropriate to note here that a perfected placer location does not confer the right to the possession of veins, or lodes, which may be found to exist within the placer limits at any time prior to filing an application for a placer patent. Such lodes may be appropriated by the placer claimant or by others provided the appropriation is effected by peaceable methods and in good faith. Title to the lode will not pass by the placer patent where the lode was known to exist and was not claimed in the patent application. 2 LINDLEY, MINES § 413 (3d ed. 1914); *Noyes v. Clifford*, 37 Mont. 138, 94 Pac. 842 (1908).

²⁰*See Webb v. American Asphaltum M. Co.*, 157 Fed. 208 (8th Cir. 1907) (holding the form of the deposit determinative and disregarding the nonmetallic character of the mineral—*asphalt*). For a good discussion concluding that the metallic or nonmetallic character of deposits has no effect on the right of appropriation under laws applicable to lodes, *see* 2 LINDLEY, MINES § 323 (3d ed. 1914). The usual form of the uranium deposit is considered as a lode. *See Note*, 4 UTAH L. REV. 239, 244 (1954). But, one instance of a uranium placer deposit (in Idaho) has come to the writer's attention.

²¹*See infra*, p. 187. The Multiple Mineral Development Law (P.L. 585) provides that all mining claims located after August 13, 1954 shall be subject to a reservation to the United States of all leasing act minerals if at the time of issuance of patent the land in question is covered by a lease or prospecting permit, or application therefor, or is known to be prospectively valuable for leasing act minerals. 68 STAT. 710 (1954), 30 U.S.C.A. § 524 (2) (Supp. 1956).

exclusive possessory interest in land²² which may be sold, leased, devised or otherwise conveyed;²³ it is taxable by the state²⁴ and may be the subject of a lien.²⁵ A corporation or an individual may locate through an agent, and written authority is not essential.²⁶

Requirements of a Valid Location in Montana

The natural and proper order of procedure to complete a location is (1) discovery, (2) posting notice, (3) recording notice, (4) marking boundaries, and (5) development work. Practically speaking, the order of performance of these acts is immaterial in the absence of intervening rights.²⁷

Discovery

Discovery is the acquisition of knowledge that a valuable mineral deposit exists²⁸ and is the initial fact giving rise to rights under location laws.²⁹ A claim may be invalidated by the government landowner *only* if the claim lacks the discovery required by law.³⁰ No appellate court decisions have been rendered with regard to what constitutes a valuable uranium discovery; however, under existing precedent each of the following factors *may* be deemed sufficient to constitute a discovery: (1) geological evi-

²²A valid location gives rise to exclusive possessory rights which can be asserted against anyone (including the government) other than a subsequent mining claimant and against such claimant by performing \$100 worth of labor or improvements annually. *Wilbur v. United States ex rel. Krushnic*, 280 U.S. 306 (1930); *Forbes v. Gracey*, 94 U.S. 762 (1876); *Helena etc. Iron Co. v. Baggaley*, 34 Mont. 464, 87 Pac. 455 (1906); P. L. 167 modifies this exclusive possessory right. The minor who locates his claim after July 23, 1955 is limited in the use of his claim to prospecting, mining, or processing operations and the uses reasonably incident thereto; e.g., he can use the timber for mining purposes, but until he obtains patent, the United States can manage and dispose of the vegetative surface resources so far as this management does not endanger or interfere with the miner's operations. Claims located before the above date may also be subjected to this right in the United States under certain conditions. 69 STAT. 367, 368, 369, 372 (1955), 30 U.S.C.A. §§ 601-615 (Supp. 1956).

²³*Belk v. Meagher*, 104 U.S. 279 (1881), *aff'd* 3 Mont. 65 (1878); *Mantle v. Noyes*, 5 Mont. 274, 5 Pac. 856 (1885), *aff'd* 127 U.S. 348 (1888); *Poore v. Kaufman*, 44 Mont. 248, 119 Pac. 785 (1911); *Hopkins v. Noyes*, 4 Mont. 550, 2 Pac. 280 (1883) (written conveyance necessary to transfer mining claim).

²⁴*Forbes v. Gracey*, 94 U.S. 762 (1876); *Earhart v. Powers*, 17 Ariz. 55, 148 Pac. 286 (1915); see *Cobban v. Meagher*, 42 Mont. 399, 409, 113 Pac. 290, 292 (1911); R.C.M. 1947, §§ 84-5401 to 5415.

²⁵*Wilbur v. United States ex rel. Krushnic*, 280 U.S. 306 (1930); *Bradford v. Morrison*, 212 U.S. 389 (1909); Note, *Mechanics' Liens in Montana*, 18 MONTANA L. REV. 53, 63 (1956) (mechanic's lien is against the whole claim, not the improvement alone).

²⁶*McKinley v. Wheeler*, 130 U.S. 630 (1889); *Whiting v. Straup*, 17 Wyo. 1, 95 Pac. 849 (1908); MORRISON, MINING RIGHTS 61 (16th ed. 1936).

²⁷*Beals v. Cone*, 27 Colo. 473, 62 Pac. 948, 952 (1900); *Patchen v. Keeley*, 19 Nev. 404, 14 Pac. 347 (1887); *Sands v. Cruikshank*, 15 S.D. 142, 87 N.W. 589 (1901); 2 LINDLEY, MINES 763 (3d ed. 1914).

²⁸*Cole v. Ralph*, 252 U.S. 286, 296, 299 (1920); *Moulton Min. Co. v. Anaconda Copper Min. Co.*, 23 F.2d 811 (9th Cir. 1928); MORRISON, MINING RIGHTS 24 (16th ed. 1936); 2 LINDLEY, MINES § 336 (3d ed. 1914); see Note, *Valuable Mineral Discovery*, 9 WYO. L.J. 214 (1955).

²⁹*Gwillim v. Donnellan*, 115 U.S. 45 (1885) (loss of discovery is loss of the location); *Erhardt v. Boaro*, 113 U.S. 527 (1885); *Gemmell v. Swain*, 28 Mont. 331, 72 Pac. 662 (1903); *Sanders v. Noble*, 22 Mont. 110, 117, 55 Pac. 1037, 1039 (1899); *Upton v. Larkin*, 7 Mont. 449, 456, 17 Pac. 728, 731 (1888); R.C.M. 1947, § 50-701.

³⁰*Ickes v. Virginia-Colorado Development Corp.*, 295 U.S. 639 (1935); *Wilbur v. United States ex rel. Krushnic*, 280 U.S. 306 (1930).

dence;⁸¹ (2) radioactivity readings;⁸² (3) core drilling supplemented by assay or radioactivity reading of samples; or (4) chemical analysis of samples taken from surface, open cuts or shafts.⁸³ Uncertainties connected with geological evidence or radioactivity readings could lead the courts to require additional evidence to establish a valid discovery.⁸⁴

A discovery and posting of notice will hold the claim from subsequent locators for thirty days during which the locator may mark boundaries, and for sixty days during which he may sink the discovery shaft.⁸⁵

Posting Notice

A written or printed notice must be posted conspicuously⁸⁶ at the point of discovery⁸⁷ by the locator. This location notice is not the same thing as

⁸¹An informed guess based on geological evidence indicating the likelihood of discovery is not sufficient in the absence of an actual discovery of minerals within the confines of the claim. *United States v. Iron Silver Mining Co.*, 128 U.S. 673, 684 (1888); *Rev. Stat. § 2320* (1875), 30 U.S.C. § 23 (1952); *Noyes v. Clifford*, 37 Mont. 138, 152, 94 Pac. 842, 847 (1908). Where there is a connection between surface indications and the ore beneath, such geological evidence has been held sufficient discovery to support a location. *Columbia Copper Min. Co. v. Duchess M. M. & S. Co.*, 13 Wyo. 244, 79 Pac. 385, 386 (1905). Two recent Department of Interior decisions find discovery is satisfied by indications of mineral where the claims were proximate to known mineral deposits and locators, supported by geological witnesses' testimony, believed they were justified in expending time, money and labor for development of a valuable mine at depth. *United States v. Merger Mines Corp.*, *Coeur d'Alene 013942*, Contest No. 977 (S.F. 48915) (1954); *United States v. A. A. M. Arnold*, *Coeur d'Alene 013984*, Contest No. 978—M.S. No. 3373 (1954). See generally, Waldeck, *Discovery Requirements and Rights Prior to Discovery on Uranium Claims on the Colorado Plateau*, 27 *Rocky Mt. L. Rev.* 404 (1955).

⁸²Note that elements other than uranium are also radioactive and that Geiger and scintillation counters are subject to malfunction due to defective batteries, rough treatment, extreme humidity or cold. U.S. ATOMIC ENERGY COMMISSION AND U.S.G.S., *PROSPECTING FOR URANIUM* (1951).

⁸³Whether one of these evidences taken alone will be deemed sufficient discovery makes necessary an examination of the dichotomy of authority with regard to whether *indications* of mineral can suffice for a discovery in lieu of the actual presence of mineral. The preponderance of decisions hold mere indications of mineral, however strong, cannot take the place of discovery of mineral itself. *Chrisman v. Miller*, 197 U.S. 313 (1905); *United States v. Iron Silver Mining Co.*, 128 U.S. 673 (1888); *Erhardt v. Boaro*, 113 U.S. 527 (1885); *Migeon v. Montana Central Ry.*, 77 Fed. 249 (9th Cir. 1896); *Noyes v. Clifford*, 37 Mont. 138, 94 Pac. 842 (1908); *Brownfield v. Bier*, 15 Mont. 403, 39 Pac. 461 (1895). The other line of authority holds that a valid location may be made whenever the prospector has discovered such indications of mineral that he is willing to spend his time and money following it, with a reasonable expectation of developing ore. *Burke v. McDonald*, 2 Idaho 1022, 29 Pac. 98 (1892); *Harrington v. Chambers*, 3 Utah 94, 1 Pac. 362, 373 (1883). Lindley in his treatise, § 336, states courts adopt the liberal construction where a question arises between two miners who have located claims upon the same lode and the strict rule where the miner asserts rights in property raising a question of the relative value of the tract to the parties to the suit, i.e., the value of the tract as mining property weighed against its value for the use which the opposing party wishes to make of it under another federal act. *Chrisman v. Miller*, *supra*. For a discussion of this point see the opinion by Judge De Witt in *Brownfield v. Bier*, *supra*. The Land Department regards a discovery for patent purposes as proven when mineral is found and the evidence would justify a person of ordinary prudence in further expenditure of his labor and money with a reasonable prospect of success. *Chrisman v. Miller*, *supra*; 2 LINDLEY, *MINES* 772 (3d ed. 1914).

⁸⁴See notes 31 and 32, *supra*.

⁸⁵*Ferris v. McNally*, 45 Mont. 20, 26, 121 Pac. 889, 892 (1912); R.C.M. 1947, § 50-701; MORRISON, *MINING RIGHTS* 33 (16th ed. 1936).

⁸⁶The requirement of *conspicuous* posting is satisfied by a distinct and noticeable mound of rocks containing the notice which can be found with the slightest inspection. 2 LINDLEY, *MINES* 821 (3rd ed. 1914).

⁸⁷Failure to post at the point of discovery vitiates the location as against an interven-

the recorded certificate of location. The notice must contain the name of the claim, name of the locator, date of location—which is the date of posting—and the approximate dimensions of the claim. Courts are inclined to be exceedingly liberal in construing whether such notices meet the statutory requirements.³⁸

Recording Notice

Within sixty days after posting, the locator must record with the county clerk of the county in which the location is made a certificate of location containing (1) the name of the lode or claim, (2) the name of the locator or locators, (3) the date of location and such description of the claim, with reference to some natural object or permanent monument, as will identify the claim, and (4) the direction and distance claimed along the course of the vein each way from the discovery shaft, cut or tunnel, also the width claimed on each side of the center of the vein. The location certificate must also be verified by one of the locators, or by any officer or agent of the company when a corporation is the locator. The fact of agency for a corporation must be stated in the affidavit. When filed, the certificate is prima facie evidence of matters therein stated.³⁹

The description "with reference to some natural object or permanent monument" must be one which would enable a person of reasonable intelligence to find the claim and trace its boundaries.⁴⁰ The federal statute contains the same description requirement.⁴¹

If the locator finds that the claim description is defective, he can amend it.⁴² Such amendment will relate back to the original certificate so as to perfect the location⁴³ but will not cut off any rights of a subsequent locator acquired prior to filing of the amended declaratory statement.

ing right. *Butte Northern Copper Co. v. Radmilovich*, 39 Mont. 157, 162, 101 Pac. 1078, 1080 (1909).

³⁸R.C.M. 1947, § 50-701. Locators had posted their notice claiming 500 feet southerly and 1000 feet northerly. During interval allowed for filing location certificate other parties discovered the lode nearby, but in a different direction. It was held that the initial locators had the time allowed for filing location certificate to choose where they would ultimately fix their corners and they could swing their claim at nearly right angles to take in the subsequent discovery and were not estopped therefrom by the recital in the notice. This was so notwithstanding the subsequent locators had read the notice and purposely kept clear. *Sanders v. Noble*, 22 Mont. 110, 55 Pac. 1037 (1899). See also *Butte Consol. Min. Co. v. Barker*, 35 Mont. 327, 89 Pac. 302, 90 Pac. 177 (1907).

³⁹R.C.M. 1947, § 50-702.

⁴⁰*Bramlett v. Flick*, 23 Mont. 95, 102, 57 Pac. 869, 871 (1899); *Gamer v. Glenn*, 8 Mont. 371, 20 Pac. 654 (1889). Subsequent locators who have actual notice of the location of the claim cannot rely on the deficiencies in the description of a prior locator. *Heilman v. Longhrin*, 57 Mont. 380, 188 Pac. 370 (1920). For what has been held a natural object or permanent monument contemplated by the statute in that it is a fairly precise starting point for finding the claim, see 2 LINDLEY, MINES § 383 (3d ed. 1914). Sufficiency of description is to be determined by jury. *Bramlett v. Flick*, *supra*. If possible, the locator should refer to two natural objects or permanent monuments, using those closest to the claim and compass fixes should be taken on both of them. The distances from the claim to the monuments should be measured as accurately as possible.

⁴¹REV. STAT. § 2324 (1875), 30 U.S.C. § 28 (1952). A section corner is undoubtedly an adequate permanent monument. See *O'Donnell v. Glenn*, 8 Mont. 248, 19 Pac. 302 (1888).

⁴²R.C.M. 1947, § 50-715.

⁴³*Butte Consol. Min. Co. v. Barker*, 35 Mont. 327, 336, 89 Pac. 302, 90 Pac. 177 (1907).

Marking Boundaries

Proper marking of the location consists of defining the boundaries by a monument at each corner or angle of the claim. Such monument may by statute be an eight inch tree blazed on four sides, a four inch square post—four feet six inches in length—set one foot in the ground, a squared stump of requisite size, a six by eighteen inch stone set two-thirds of its length in the ground with a mound of rocks or earth beside it—the mound must be at least four feet in diameter by two feet in height—or a boulder three feet above the natural surface of the ground on the upper side. Whether other monuments sufficiently mark the boundaries is a question of fact to be decided by a jury. Whatever type monument is used must contain the claim name and corner designation by number or cardinal point.⁴⁴

Where the claim has been sufficiently marked and the other acts of location performed, subsequent loss of the marks without fault of the locator cannot deprive him of his location rights.⁴⁵ Existing boundary monuments prevail in the case of conflict with the courses and distances contained in the location certificate.⁴⁶

Extralateral Rights. The doctrine of extralateral rights refers to the right of a mineral locator whose vein apexes within the boundaries of his location to follow that vein on its downward course even though it passes through the side-lines into adjoining land of another.⁴⁷ The locator must establish his boundary lines with care if he is to obtain extralateral rights. The two requirements are: first, the location must contain the apex of the vein or lode,⁴⁸ and second, the end-lines of the location must be parallel.⁴⁹ One may not follow his vein beyond vertical planes of the end-lines but between them the proprietor of the apex has the right to follow his vein through the side-lines.⁵⁰ To acquire the maximum extralateral right, the locator should establish the location so that the strike of the vein passes through both end-lines.⁵¹ As a practical matter the locator often cannot

⁴⁴R.C.M. 1947, § 50-701; REV. STAT. § 2324 (1875), 30 U.S.C. § 28 (1952).

⁴⁵*Tonopah & Salt Lake M. Co. v. Tonopah M. Co.*, 125 Fed. 389, 391 (C.C.D. Nev. 1903); *Jupiter Min. Co. v. Bodie Consol. Min. Co.*, 11 Fed. 666, 677 (C.C.D. Cal. 1881). One who has actual notice of a mining claim cannot complain because of the absence of marks on the ground. *Haws v. Victoria Copper Min. Co.*, 160 U.S. 303 (1895).

⁴⁶*Hoffman v. Beecher*, 12 Mont. 489, 31 Pac. 92 (1892).

⁴⁷REV. STAT. § 2322 (1875), 30 U.S.C. § 26 (1952); MORRISON, *MINING RIGHTS* 198 (16th ed. 1936); 2 LINDLEY, *MINES* §§ 564-568 (3d ed. 1914).

⁴⁸REV. STAT. § 2322 (1875), 30 U.S.C. § 26 (1952). The outcrop or edge of a vein or deposit is not necessarily an apex. Apex refers to the highest point reached by a narrow zone of ore-bearing rock descending indefinitely in depth. It is essentially perpendicular. To be distinguished is an outcrop of ore-bearing *strata* which is essentially horizontal though it may be found to approach the perpendicular. MORRISON, *MINING RIGHTS* 199 (16th ed. 1936).

⁴⁹REV. STAT. § 2320 (1875), 30 U.S.C. § 23 (1952). Statutory donation of extralateral rights was denied where the claim was surveyed as a triangle. *Montana Co. v. Clark*, 42 Fed. 626 (C.C.D. Mont. 1890).

⁵⁰*Del Monte Mining Co. v. Last Chance Min. Co.*, 171 U.S. 55 (1898).

⁵¹Where the vein or veins cross the side-lines instead of the end-lines, the side-lines become end-lines for extralateral purposes. *Silver King Coalition M. Co. v. Conkling Min. Co.*, 256 U.S. 18 (1921); *Flagstaff Sil. M. Co. v. Tarbet*, 98 U.S. 463 (1878). For a good discussion of extralateral rights obtained where (1) the vein crosses one end-line and one side-line, (2) veins cross the same line twice, and (3) the vein's apex begins and ends within the same claim, see Note, *Extra-Lateral Rights in Mining*, 15 NOTRE DAME LAW. 68 (1940). See also MORRISON, *MINING RIGHTS* 205 (16th ed. 1936).

ascertain the course, or strike, of his vein and so must locate without reference to acquiring maximum extralateral rights.

In the celebrated Leadville cases a blanket vein essentially horizontal, although rather corrugated in form, was found to have no "tops" or "apices" entitling the lode locator to extralateral rights.⁵³

Development Work

The discovery shaft as one of the acts of location is totally unrelated to the fact of discovery. The requirement of a discovery shaft originated in the policy of precluding one person from withdrawing a large area from exploration by a number of locations in the same locality.⁵⁴

Within sixty days after posting location notice, the discovery shaft must be sunk at least ten feet in depth, or deeper if necessary, to disclose the vein or deposit located. Its position must be at or near the point of discovery. Not less than 150 cubic feet of excavation must be removed from the shaft or from a cut or tunnel which is the equivalent of the shaft. If the vein or deposit is disclosed at a depth of less than ten feet at least 75 cubic feet of excavation must be made at the point of discovery and the remainder by excavation elsewhere on the claim.⁵⁵

Assessment work. The mining locator, who has made a valid location, has certain minimum obligations to perform in order to preserve his unpatented mining claim against subsequent locators. The federal statute⁵⁶ requires the locator to perform \$100 worth of labor and improvements annually upon each location. Failure to perform the annual assessment work does not result in forfeiture of the claim, but subsequent locators can establish paramount locations.⁵⁷ The assessment work must be devoted to development of the mining property and extraction of the ores therefrom.⁵⁷ The owner, someone at his instance, or one having a beneficial interest in the property must perform the annual assessment work.⁵⁸ A Montana statute provides for filing of an affidavit to the effect that the required \$100 worth of assessment work has been performed.⁵⁹ It is not mandatory to file this affidavit, but when filed it constitutes prima facie evidence of the performance of the annual assessment work.⁶⁰

THE MINING PATENT

It is not necessary to patent a mining claim, but the issuance of a patent will eliminate the annual requirement of assessment work, establish the

⁵³1 LINDLEY, MINES §§ 311, 312, 313 (3d ed. 1914); MORRISON, MINING RIGHTS 203 (16th ed. 1936).

⁵⁴Helena Gold & Iron Co. v. Baggaley, 34 Mont. 464, 87 Pac. 455, 457 (1906).

⁵⁵R.C.M. 1947, § 50-701. Core drilling would not be a substitute for a discovery shaft. Wyoming has made it so by statute. WYO. COMP. STAT., § 57-917, as amended by Wyo. Sess. Laws 1955, c. 88. Work must be done from the surface and not through underground works on other claims. Butte Consol. M. Co. v. Barker, 35 Mont. 327, 89 Pac. 302, 90 Pac. 177 (1907).

⁵⁶REV. STAT. § 2324 (1875), 30 U.S.C. § 28 (1952).

⁵⁷2 LINDLEY, MINES 645 (3d ed. 1914).

⁵⁸St. Louis Smelting Co. v. Kemp, 104 U.S. 636 (1881).

⁵⁹Wailles v. Davies, 158 Fed. 667 (C.C.D. Nev. 1907).

⁶⁰R.C.M. 1947, § 50-704.

⁶¹Davidson v. Bordeaux, 15 Mont. 245, 38 Pac. 1075 (1895); Coleman v. Curtis, 12 Mont. 301, 30 Pac. 266 (1892).

title with certainty and obtain for the claimant surface rights which he would not have otherwise.⁶¹

If the claimant wishes to obtain a patent following a valid lode or placer location, he must have a correct survey of the claim prepared under the authority of the cadastral engineer for that area.⁶² This survey must be made prior to filing of the application for patent. After making the survey, the claimant is then required to post at a conspicuous place upon the claim a copy of the plat of survey and notice of his intention to apply for a patent. The notice should contain the date of posting, name of claimant, name of claim, number of survey, mining district and county, and names of adjoining and conflicting claims which are shown on the plat survey.⁶³ Following this the applicant should file a copy of the plat and field notes of survey with the proper Manager of the Bureau of Land Management together with a statement of two witnesses showing that the plat and notice have been conspicuously posted, giving the date and place of posting. Accompanying this statement, and constituting a part of it, must be a copy of the posted notice.⁶⁴

The Application for Patent

Simultaneously with filing proof of posting, the claimant must file in duplicate an application for patent with the Manager.⁶⁵ A filing fee of ten dollars must be paid to the Bureau of Land Management at this time.⁶⁶ The application must include:⁶⁷

- (1) Information showing that the claimant has the possessory right to the claim by reason of compliance with the mining rules, regulations, and customs of the mining district or state in which the claim lies and with the mining laws of Congress.
- (2) A brief narrative of facts constituting such compliance, the origin of his possession, and the basis of his claim to a patent.
- (3) A full description of the character of the vein or lode stating whether ore has been extracted therefrom and, if so, the amount and value of ore extracted. The precise place where the vein or lode has been exposed or discovered and the width thereof, within the limits of each of the locations, should be shown in the application.
- (4) A statement of each applicant showing that he is a native or naturalized citizen, when and where born, and his residence.⁶⁸
- (5) If the mining claim was located after August 1, 1946, the application must state whether claimant had any part in atomic bomb

⁶¹United States v. Rizzinelli, 182 Fed. 675 (D. Ida. 1910) ; see note 22, *supra*.

⁶²General Mining Regulations, 19 FED. REG. No. 248, at 8995 (Dec. 23, 1954), 43 C.F.R. § 185.5 (1954). In Montana the application for survey should be made to Area Cadastral Engineering Office, Bureau of Land Management, Billings, Montana. *Id.* at § 185.38. A placer claim requires no further survey if located on surveyed lands and if it conforms to legal subdivision. *Id.* at § 185.69.

⁶³*Id.* at § 185.52. This notice is important as by it jurisdiction is obtained over the case to foreclose conflicting claims.

⁶⁴*Ibid.*

⁶⁵*Id.* at § 185.53. No printed application forms are supplied.

⁶⁶*Id.* at § 185.84.

⁶⁷*Id.* at § 185.53. Only a single application is required where the claim includes several contiguous locations.

⁶⁸*Id.* at § 185.74. See also § 185.73, Citizenship of Corporations.

projects, the nature of the participation and whether through such participation he obtained any confidential, official information as to the existence of fissionable source materials on the land for which patent is sought.

Additional evidence is required with the application for patent if the applicant claims benefits under the Multiple Mineral Development Act⁶⁸ or Public Law 250⁶⁹ both of which contain provisions for validating uranium (and other mineral) claims where such claims were located on lands leased by the federal government under the Mineral Leasing Act⁷¹ or where the claimant had previously obtained a uranium lease on that land from the AEC.⁷² The requirement of additional evidence is satisfied by a certified copy of each instrument required to be recorded as to the mining claim to entitle it to such benefits,⁷³ unless an abstract of title or certificate of title filed with the application for patent sets forth those instruments in full.⁷⁴

Completion of Procedure for Patent

A lode claimant must file with the Manager at the time of application or within the publication period a certificate of the cadastral engineer that \$500 worth of labor has been expended on location.⁷⁵ "Publication period" refers to required publication of the notice of application for sixty days in a newspaper nearest the claim when the Manager is satisfied as to the sufficiency of the application.⁷⁶ After the publication period the claimant must furnish the Manager a sworn statement that the notice appeared for sixty

⁶⁸68 STAT. 708 (1954), 30 U.S.C.A. § 521 (Supp. 1956).

⁶⁹67 STAT. 539 (1953), 30 U.S.C.A. § 501 (Supp. 1956).

⁷¹41 STAT. 437 (1920), 30 U.S.C. §§ 181, 271, 281 (1952). The Mineral Leasing Act has been amended on a number of occasions and today provides generally for either the issuance of a prospecting permit which can be converted into a lease in the event of discovery or, as in the case of oil and gas, for the issuance of a lease both before and after discovery. Department of Interior construction of this act was that lease, application for lease, or prospecting permit or knowledge that the land was prospectively valuable for leasing act minerals effectively withdrew that land from location under mining laws. *Jebson v. Spencer and Woodward*, Department of Interior, A-26596 (June 11, 1953). Ultimately this construction made necessary passage of the Multiple Mineral Development Act, which generally provides that lessees of leasing act minerals and mining locators can make use of the same land, e.g., the lessee to extract oil and gas and the locator to mine uranium, so far as the uses are not incompatible. See Bloomenthal, *Multiple Mineral Development on the Public Domain*, 9 Wyo. L.J. 139 (1955).

⁷²After adoption of P.L. 250, the AEC established by regulation a procedure for obtaining so-called Circular 7 uranium leases on those parts of the public domain effectively withdrawn from mineral entry by the leasing act. 10 C.F.R. § 60.7, 19 FED. REG. 764 (Feb. 10, 1954), terminated by Order, 19 FED. REG. 7365 (Nov. 16, 1954).

⁷³In order to obtain the benefits of P.L. 250 the mining claimant had to post on his claim and file for record in the appropriate county office prior to Dec. 11, 1953, an amended notice of location of such claim stating it was filed under P.L. 250 and for the purpose of obtaining the benefits thereof, i.e., converting his uranium lease under Circular 7 into a valid location. 67 STAT. 539 (1953), 30 U.S.C.A. § 501 (Supp. 1956). The Multiple Mineral Development Act provided for an identical procedure for validating locations made after Dec. 31, 1952, and prior to Feb. 10, 1954. 68 STAT. 708 (1954), 30 U.S.C.A. § 521 (Supp. 1956). Another instrument necessary to the chain of title under the Multiple Mineral Development Act is notice of withdrawing or releasing of the lease filed with the AEC and the appropriate county office. *Ibid.*

⁷⁴43 C.F.R. § 186.4 (Supp. 1956).

⁷⁵*Id.* at § 185.42 (1954).

⁷⁶*Id.* at § 185.56. Generally speaking publication is once a week for nine consecutive weeks, but see this section for detailed procedure.

days, giving the respective dates." Providing there are no adverse claims filed and the filed statements are sufficient, the Manager will permit the applicant to pay for the land at the rate of \$5.00 per acre for lode claims and \$2.50 an acre for placer claims.⁷⁶ The claimant must also file a statement of all fees and charges he paid for publication, survey and to the Manager of the land office.⁷⁷ If no adverse claim has been filed and the proof is found regular the Manager will issue a Certificate of Entry. He will forward the record to the Director of the Bureau of Land Management, and the patent will be issued if the record is found regular.⁸⁰

Adverse Claims

All adverse claims must be filed within the sixty day period for publication of notice of patent application; failure to do so raises a conclusive presumption that there are no adverse claimants.⁸¹ Adverse claims must be filed with the Manager where the patent application is filed, or with the Manager of the district in which the land is situated.⁸²

PROSPECTING ON AND LEASING OF STATE LANDS

The State Board of Land Commissioners is authorized by statute to issue prospecting permits,⁸³ but the Board discontinued issuance of such permits in 1946 for the reason that of the 1000 prospecting permits issued prior to that date, not one had resulted in a lease, production, or even prospecting. The areas covered by the permits issued were used by summer vacationers for camp sites, by speculators for promotion schemes, and by old prospectors to build cabins from which they had to be evicted. The permittees cut down trees and created fire hazards, causing the Fish and Game and Forest Departments to complain constantly, and the \$1.00 fee did not pay even for the stationery and time used in preparing the permit.⁸⁴

Leases of State Lands

The policy governing leasing of state lands for mineral development differs from the federal policy applied to mining claims. The federal government seeks to develop the mineral resources of the nation through its statutory policy while the State desires support for its public institutions through income from state-owned lands.

The process for obtaining prospecting and leasing rights in state lands

⁷⁶*Id.* at § 185.59.

⁷⁷*Id.* at §§ 185.60, 185.69(b).

⁷⁸*Id.* at § 185.60.

⁷⁹*Id.* at § 185.62.

⁸⁰*Id.* at §§ 185.78, 185.60.

⁸¹*Id.* at § 185.78.

⁸²R.C.M. 1947, § 81-615.

⁸³Letter from Lou Bretzke, Commissioner of State Lands, to the writer, dated Jan. 3, 1957. "Uranium prospectors usually want a general permit, one that will enable them to go on any school land. In view of the importance of surface leases—for example, in the case of oil and uranium leases on the same acreage the question of preference will cause many oil companies to not lease, or more especially, not drill, if there is such a complication of title—this department must know where the prospecting is being carried on and who is doing it. It might be possible to write a prospecting permit, one that would carry a rental, not fee, of perhaps \$50.00, that would enable a prospector to go onto state lands with a Geiger counter or even to core drill, but the location should be definite as to description." *Ibid.*

includes (1) application for the preliminary lease, (2) working under the preliminary lease, and (3) obtaining the operating lease.

The application for preliminary lease must be accompanied by a filing fee of \$2.50 and one year rental at the rate of fifty cents an acre for the acreage upon which the lease is sought. The application must include information as to whether there are any mineral outcroppings or old mine workings on the land and whether there is timber on the land. Application forms are furnished by the Land Board and use of such forms is mandatory.⁸⁵ Before any land is leased an investigation is conducted by the Board to determine whether the character of such lands warrants issuance of a lease thereon and to determine the proper amount of royalty and other rentals. If the lands have not been examined prior to application for a mining lease, the applicant must deposit with the Board an amount of money not exceeding \$500 to cover the cost of a special examination by the Board.⁸⁶

The preliminary lease, entitled "Uranium Prospecting Lease," is for a term of two years which may be extended by the lessor for a period not exceeding one year. Under this lease, the lessee agrees to an annual rental of fifty cents an acre for the land under lease; he agrees to pay the lessor twenty per cent of the gross value, including all government bonuses, premiums and allowances, except transportation subsidies; he agrees to enter the land, explore and develop it to the extent of twenty-five dollars per eighty acres per year in material, service or labor; he agrees to obtain the consent of the State Forester before cutting any timber on the land; he agrees not to assign the lease without the consent of the lessor; and he also agrees to cover diggings and pay for damages to the range, livestock, growing crops or improvements caused by his operations on the land.⁸⁷

The operating or mining lease on state lands may be acquired by the preliminary lessee upon establishing to the satisfaction of the Land Board that commercially valuable deposits of uranium have been discovered within the limits of the preliminary lease. The terms of the operating lease are discretionary with the State Land Board except that it must be for a term of forty years with a preference of renewal. Further, for the first ten years of the term, the lessee must pay the State such royalty and other rentals as may be determined to be appropriate after an investigation by the Board of the mineral character of the land. At the end of each ten year period the royalty is to be renegotiated.⁸⁸

⁸⁵R.C.M. 1947, § 81-606.

⁸⁶Applicants object to the examination by the State Geologist; they want to do their own prospecting. They object to the vagueness of the deposit to cover such inspection; \$500.00 is a huge sum for some of our prospectors. Letter from Lou Bretzke, Commissioner of State Lands, to the writer, dated Jan. 3, 1957.

⁸⁷From the standard prospecting lease form presently utilized by the State Land Board.

⁸⁸"The present mining lease is far from adequate. It is too long and involved and it is not decisive. Miners who come into the office expect a direct answer to their questions, not to be told that 'that is at the discretion of the Land Board.' The members of the Land Board are busy people and would appreciate having as many decisions as possible made in the Land Office or by the legislature. For instance: Rental: Why not state that the annual rental is 75 cents, or \$1.00 per acre. Oil and gas leases bring \$1.00.

Term: State definitely, for example, ten years and another ten years if there is production of commercial quantity and quality.

THE URANIUM LEASE

The mineral deed, the lease and the license are the three types of instruments used in the mining industry. The mineral deed conveys absolute title to the minerals. Uranium and other hard minerals in place are real property⁸⁰ and ownership thereof may be transferred apart from the surface.⁸⁰ The lease and the license permit mining by one other than the owner. The usual mining lease essentially conveys a determinable fee in the minerals to the lessee with a reversionary interest remaining in the lessor.⁸¹ The license allows the operator to enter upon the land and remove the minerals;⁸² the licensee acquires no interest in the ore until removed,⁸³ no exclusive right to mine,⁸⁴ and the license is revocable⁸⁵ and cannot be transferred.⁸⁶

Granting Clause

A uranium operator will obviously want a grant of the mineral fee rather than a license before he will risk his capital in the enterprise. Decisions do not always give clear-cut distinctions between leases and licenses. Factors which have been held to denote a lease are exclusive right to mine,⁸⁷ irrevocability,⁸⁸ right to maintain ejection,⁸⁹ a minimum work requirement,⁹⁰ and burden of the entire mining expense on the operator.⁹¹ It is the intent of the parties that controls whether there is a lease or a license and the factors mentioned are criteria by which courts determine that in-

Royalty: A definite rate based on net value. If it is deemed advisable to have a higher rate for placer than for lode mining, it can be stated in the same lease.

Fee: Why suggest that the fee may be \$100.00 when the grazing lease fee is \$2.50 and the oil lease fee \$5.00. This is a recording fee only. It goes into the General Fund, not the school fund. [R.C.M. 1947, § 81-606 provides that upon issuance of the mining lease, the lessee must pay the Board a fee based upon the office work involved in preparing the lease; and in any case not to exceed \$100.00]

"All mining leases should carry a surety bond of \$1000.00, to be increased should there be a discovery important enough to warrant. The three year prospecting period is good. The Board should have authority to cancel a lease if it is being held without prospecting or development.

"In preparing a mining lease, it should be remembered that nearly every section in the state is under either a grazing or an agricultural lease. These leases produced nearly two and one-half million dollars in 1957. The mining lease should state that gates are to be kept closed, plowed fields and crop land skirted, and that the farmer be reimbursed for any damage done." Letter from Lou Bretzke, Commissioner of State Lands, to the writer, dated Jan. 3, 1957. "It is interesting to note that in the entire history of the Land Office, not more than \$125.00 has been paid in the way of mineral royalties." *Ibid.*

⁸⁰Whiles v. Grand Junction Min. & Fuel Co., 86 Colo. 418, 282 Pac. 260 (1929).

⁸⁰Evans Fuel Co. v. Leyda, 77 Colo. 356, 236 Pac. 1023 (1925).

⁸¹Shank v. Franklin Coal Co., 107 Kan. 380, 191 Pac. 482 (1920); Peppers Refining Co. v. Barkett, 208 Okla. 367, 256 P.2d 443 (1953).

⁸²Von Goerlitz v. Turner, 65 Cal. App. 2d 425, 150 P.2d 278 (1944).

⁸³*Ibid.*; Wheeler v. West, 71 Cal. 126, 11 Pac. 871 (1886).

⁸⁴Selsby v. Trother, 29 N.J. Eq. 228 (1878).

⁸⁵Shaw v. Caldwell, 16 Cal. App. 1, 115 Pac. 941 (1911); McCullagh v. Rains, 75 Kan. 458, 89 Pac. 1041 (1907).

⁸⁶Dark v. Johnston, 55 Pa. 164 (1867).

⁸⁷Von Goerlitz v. Turner, 65 Cal. App. 2d 425, 150 P.2d 278 (1944); McCullagh v. Rains, 75 Kan. 458, 89 Pac. 1041 (1907).

⁸⁸Stinson v. Hardy, 27 Ore. 584, 41 Pac. 116 (1895).

⁸⁹Boone v. Stover, 66 Mo. 430 (1877).

⁹⁰McCullagh v. Rains, 75 Kan. 458, 89 Pac. 1041 (1907).

⁹¹Stinson v. Hardy, 27 Ore. 584, 41 Pac. 116 (1895).

tent. Where a lease is intended difficulty can be avoided by making clear in the granting clause that there is a grant of the mineral fee.¹⁰²

Habendum

Wording the term of the lease—by which the lessee gets a “determinable fee”—usually presents little difficulty. Common stipulations are fixed terms and fixed terms with renewal options. The election to renew is effective only if the lessee is in good faith conducting mining operations on the leased premises when the option is exercised. Many leases substitute for “as long as the lessee in good faith is conducting mining operations,” the clause, “as long as ore is mined in paying quantities.” This latter clause raises questions similar to those arising under oil and gas leases where the lease is to be in effect “so long as oil and gas shall be produced in paying quantities.”¹⁰³ Other provisions appropriate to the habendum which may be desirable include the requirement that the lessee start operations under the lease within a reasonable time, and, where the lessee is exploring for uranium with shallow depth core drilling, the requirement that the lessee drill until paying ore is discovered or until he has reached a specified depth or a certain formation.¹⁰⁴

Royalties

Royalties may be based on a flat percentage of the value of ore removed, or they may be graduated according to the quantity of ore produced. An exact description of the basis for computing royalty is most important.¹⁰⁵ A provision requiring a payment of royalty on all bonuses, of any kind, is open to the objection that development allowances given by the federal government are to be spent for the development or exploration of the recipient's properties.¹⁰⁶ To key the value of the ore to the AEC price list would be unwise as the price list only applies to the Colorado plateau and certain minerals located there; also the market value of the ore may exceed

¹⁰²Suggested granting clauses to convey a determinable fee: (1) To convey the entire claim—

Granting. Lessor, in consideration of the royalties hereinafter stated and performance of the covenants and agreements hereinafter expressed, grants and leases unto lessee the following described mining claims:

(2) To convey the minerals alone—

Granting. Lessor, in consideration of the royalties hereinafter stated and performance of the covenants and agreements hereinafter expressed, grants and leases exclusively unto lessee the following described mining claims for the purpose of exploring for and mining uranium, thorium and other fissionable material with the right to use as much of the surface as is necessary for mining purposes. Strong and Martin, *Uranium Mining Lease*, 27 ROCKY MT. L. REV. 425, 427 (1955).

¹⁰³See SULLIVAN, HANDBOOK OF OIL AND GAS §§ 40-44 (1955).

¹⁰⁴See generally, Strong and Martin, *Uranium Mining Lease*, 27 ROCKY MT. L. REV. 425 (1955).

¹⁰⁵Suggested wording for the royalty provision:

Royalties. Lessee shall pay or cause to be paid to the lessor by the ore purchaser per cent of the gross value of all ores shipped or sold from any part of the leased premises. Gross value means the value of the ore F.O.B. the ore buying station, but includes all bonuses and premiums whether paid by the Government or any ore buyer for the location, discovery, mining or selling ore from the premises. Gross value does not include haulage or development allowances, but lessee must use any development allowance in the development of the leased premises. *Id.* at 429.

¹⁰⁶10 C.F.R. § 60.3a (c) n. 1 (1949), now expired (1956 Supp.); 10 C.F.R. §§ 60.5, 60.5a, 60.6 (Supp. 1956).

the price list.¹⁰⁷ Certainty would require that "net proceeds" or any similar phrase be defined in the lease. The problem of royalty on transportation costs can be eliminated by stating that the price for purposes of calculating royalties shall be F.O.B. a specified place.¹⁰⁸ If minimum royalties are called for, the lease should specify the standard for payment.¹⁰⁹

Where royalties are the sole consideration under the lease, the lessee is under an implied covenant to develop as in leases for oil and gas.¹¹⁰ To avoid the possibility of being required to continue unprofitable mining operations¹¹¹ and/or payment of minimum royalties¹¹² express provisions should state the obligation of the lessee to develop.¹¹³

Other Appropriate Clauses

Upon termination of the lease, the lessee will want to remove fixtures and other improvements that he has added to the premises—in the absence of a clause in the lease permitting him to remove them, the fixtures belong to the land owner.¹¹⁴ The lessee of an ordinary mining lease may assign the lease or sublease, unless the lease provides otherwise. The lessor should be given the option to declare the lease forfeit by giving notice to the lessee when the lessee violates any provisions of the lease, such notice to specify particulars of default and giving the lessee a specified period in which to remedy the default. A separate notice clause spelling out the addresses of the lessor and lessee for purposes of notice may be desirable. A free right to surrender the lease through a surrender clause may be very important to the lessee in view of the highly speculative nature of uranium mining. Parties should consider including an arbitration clause in the lease. A provision for payment of taxes may be desirable. Still other desirable clauses may relate to: payments, lesser interest, warranty of title, compliance with laws, method of work, inspection of records, inspection of premises, surface rights, assessment work, minimum manhours, restoration of premises, and succession.¹¹⁵

FEDERAL INCENTIVES TO THE URANIUM INDUSTRY

The United States government has committed itself to a program of "reasonable incentives to private enterprise to bring about the greatest development of our uranium resources in the shortest possible time."¹¹⁶

¹⁰⁷A price list agreed on by the parties will be followed even though lower than the market price. *Wolf Tongue Mining Co. v. Hinman*, 67 Colo. 406, 182 Pac. 16 (1919).

¹⁰⁸See *In re Roberts Mining and Milling Co.*, 35 F. Supp. 678 (D. Nev. 1940) (in absence of lease provision court held price for calculating royalties was price at railhead although lessee paid trucking costs to railhead and buyer paid transportation costs to ore buying station).

¹⁰⁹*Makins v. Shellenbarger*, 144 Okla. 58, 289 Pac. 716 (1930) (minimum royalties held to accrue on execution of the lease, not limited to production period); *Van Doren v. Thurber*, 57 Cal. App. 506, 134 P.2d 829 (1943) (minimum royalty provision treated like delay rental provision in oil and gas lease).

¹¹⁰*Rocky Mountain Fuel Co. v. Clayton Coal Co.*, 110 Colo. 334, 134 P.2d 1062 (1943).

¹¹¹*Northern Light Mining Co. v. Blue Goose Mining Co.*, 25 Cal. App. 282, 143 Pac. 540 (1914).

¹¹²*Rocky Mountain Fuel Co. v. Albion Realty and S. Co.*, 70 F.2d 212 (10th Cir. 1934).

¹¹³Express covenants in a lease control over implied covenants. 1 *AMERICAN LAW OF PROPERTY* § 3.46 (Casner ed. 1952).

¹¹⁴R.C.M. 1947, § 67-1301.

¹¹⁵See generally, Strong and Martin, *Uranium Mining Lease*, 27 *ROCKY MT. L. REV.* 425 (1955).

¹¹⁶Paper by Lewis L. Strauss, Chairman, Atomic Energy Commission, National Western Mining Conference, February 4, 1955.

Prospecting

No monetary incentives are offered for mere prospecting, but assistance to prospectors is given through aerial surveys and core drilling. In Montana, anomaly maps showing areas of high radioactivity encountered in aerial surveys have been prepared for the following counties: Fergus, Golden Valley, Jefferson, Meagher, Musselshell, Park, Petroleum, Powder River, Sweetgrass, Wheatland. When new anomaly maps are prepared, the AEC will issue a press release announcing the posting place. No public lands in Montana are presently withdrawn from location by the AEC for core drilling.¹¹⁷

Exploration

One who owns a possessory interest¹¹⁸ in mining property and who wishes to explore it for uranium and certain other minerals¹¹⁹ may apply to the Defense Minerals Exploration Administration (DMEA) for aid, and upon approval of the application by DMEA the government will contribute up to seventy-five per cent of the total allowable cost of an exploration project. There is no obligation to return the contribution except through percentage royalties. The Administration furnishes a form which can be mailed directly to the Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D.C. A radioactive anomaly is not sufficient evidence to warrant an exploration program, nor is wildcat drilling considered exploration under the DMEA program.¹²⁰

Discovery

The Atomic Energy Commission will pay until April 11, 1958, a bonus of \$10,000 for the discovery of and production from new high-grade domestic uranium deposits. The bonus will be paid upon delivery to the Commission of at least twenty short tons of uranium-bearing ores or mechanical concentrates assaying twenty per cent or more U_3O_8 by weight from any single mining location, lode or placer, which has not previously been worked for uranium.¹²¹ To obtain the bonus, notice of the discovery and of production must be made by a letter or telegram to the Commission¹²² together with an offer to deliver such ore to the Commission.¹²³

Development

When ores are delivered to the Commission or to a licensed buyer, payment will be computed on the basis of a guaranteed minimum price plus certain allowances. Development payments in the sum of fifty cents per pound U_3O_8 contained in certain types of ores are paid in recognition of the expenditures necessary for maintaining and increasing de-

¹¹⁷Letter from Cecil H. Reneau of the AEC to the writer, December 4, 1956.

¹¹⁸32A C.F.R. Ch. XII, DMEA Order 1, § 8 (Revised Dec. 31, 1955).

¹¹⁹*Id.* at § 7.

¹²⁰Paper by J. H. East, Jr., Regional Director, Region III, Bureau of Mines, Annual Meeting of Colorado Bar Association, February 4, 1955.

¹²¹10 C.F.R. § 60.2 (1949).

¹²²United States Atomic Energy Commission, P. O. Box 30, Ansonia Station, New York 23, New York, Attention: Division of Raw Materials.

¹²³10 C.F.R. § 60.1 (1949).

veloped reserves of uranium ores.¹²⁴ Additional incentive for initial and certain other production, is provided by a bonus payment which can reach \$35,000 for each separate mining property.¹²⁵

Transportation

An allowance is given for haulage of ores of six cents per ton mile from mine to purchase depot specified by the Commission. The allowance will not be paid for mileage in excess of 100 miles and the haulage distance is determined exclusively by the Commission.¹²⁶

Marketing

Domestic Uranium Program, Circular 5 (revised)¹²⁷ guarantees prices for uranium ore from a basic price of \$1.50 per pound of low grade ore (0.10%), graduated upward to \$3.50 per pound of U₃O₈ of higher grade material (0.20%).¹²⁸ In addition, premiums are paid for high grade ore of seventy-five cents for each pound of uranium oxide in excess of four pounds per short ton and an additional premium of twenty-five cents per pound for each pound in excess of ten pounds U₃O₈ per ton. In many cases, privately operated mills are willing to pay more than guaranteed prices for ores which contain a high percentage of uranium and which have characteristics suitable for optimum recovery from the ores.

Tax Incentives

At the taxpayer's election, exploration expenses up to \$100,000 in any one year and for a period of four years only can be deducted; they may also be treated as deferred expenses to be deducted ratably as the ore or mineral is sold.¹²⁹ On the other hand, at the taxpayer's election, development expenditures may be expensed without limitation.¹³⁰ Percentage depletion—23 per cent in the case of uranium—is permitted on the gross income from mining.¹³¹ "Mining" includes the extraction of minerals from the ground, the "ordinary treatment processes normally applied by operators or mine owners in order to obtain the commercially marketable product," and the transportation of ores to a mill where "ordinary treatment processes" are applied, but not in excess of fifty miles from the mine.¹³²

MARKETING OF URANIUM

The Atomic Energy Acts and the regulations adopted by the Commission pursuant thereto require every person to acquire a license from the Commission before he may transfer, deliver, receive possession of or

¹²⁴10 C.F.R. § 60.6 (Supp. 1956), Domestic Uranium Program Circular 5, Revised.

¹²⁵*Ibid.*

¹²⁶10 C.F.R. § 60.5 (Supp. 1956).

¹²⁷*Ibid.*

¹²⁸Domestic Uranium Program Circular 5, Revised, 10 C.F.R. § 60.5 (Supp. 1956), would seem to apply only to ores of the Colorado Plateau area, but effectually the Commission has extended its scope. Nelson, *Mining and Marketing Uranium*, 27 ROCKY MT. L. REV. 482, 487 (1955).

¹²⁹INT. REV. CODE OF 1954, § 615. Uranium has been held to be a metal. REV. RUL. 106, 1953—1 CUM. BULL. 177. Therefore the uranium industry is entitled to benefits of INT. REV. CODE OF 1954, §§ 615, 616.

¹³⁰INT. REV. CODE OF 1954, § 616.

¹³¹INT. REV. CODE OF 1954, 613(b) (2).

¹³²INT. REV. CODE OF 1954, § 613(c) (2); see generally Haskell, *Taxation of the Uranium Industry*, 27 ROCKY MT. L. REV. 469 (1955).

title to any source material after removal from its place of deposit in nature.¹⁵³ There are certain exceptions, but generally a license is required for transfer of source materials in quantities greater than ten pounds.¹⁵⁴

Uranium or buying stations nearest the Montana area are:

- a. Edgemont, South Dakota, operated by Mines Development, Inc.
- b. Ford, Washington, operated by Dawn Mining Co.
- c. Salt Lake City, Utah, operated by Vitro Uranium Co.
- d. Split Rock, Wyoming, operated by Lost Creek Oil and Uranium Co.
- e. Freemont County, Wyoming, operated by Lucky Mc Uranium Corp.
- f. Riverton, Wyoming, operated by Lucius Pitkin, Inc.¹⁵⁵

Under the Atomic Energy Act of 1954 the Commission has authority to purchase, take, requisition, condemn, or otherwise acquire source material, any interest in real property containing deposits of source material, or rights to enter upon any real property deemed by the Commission to have possibilities of containing deposits of source material in order to conduct prospecting and exploratory operations for such deposits.¹⁵⁶ The policy of the Commission has been to not exercise these rights and this policy is expected to continue.

CONCLUSION

Uranium development basically falls under general mining law. There are two factors however which will cause difficulty under traditional doctrines. One is the quality of radioactivity inherent in much fissionable ore. This is an unprecedented characteristic in a commercial mineral and will likely cause reevaluation of the present concept of what is a discovery necessary to location. The second factor is the peculiar importance of uranium to the United States in the arena of world affairs. Federal incentives, and, in fact, all federal legislation bearing on uranium, are directed toward the quickest possible development of our uranium resources within the capitalistic framework of our society. How far courts will give recognition to this policy in protecting the mining claimant, in sanctioning the requisition power of the AEC and in determining what is a discovery of uranium remains to be answered.

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¹⁵³68 STAT. 932 (1954), 42 U.S.C.A. § 2092 (Supp. 1956).

¹⁵⁴10 C.F.R. § 40.11 (1949), and see also 10 C.F.R. §§ 40.23, 40.62 (1956 Supp.).

¹⁵⁵Letter from Cecil Reneau of the AEC to the writer, December 4, 1956. Note: Items b, d and e are mills under construction at this time; f is a buying station operated by Lucius Pitkin for the Commission. *Ibid.*

¹⁵⁶68 STAT. 933 (1954), 42 U.S.C.A. § 2096 (Supp. 1956).