

discovered and that the land is chiefly valuable therefor, the permittee is entitled to a lease (rather than a patent) for any or all of the land in the permit. The leasing acts relate to mineral deposits. It is immaterial what constituents thereof are the most useful after the deposit has been converted to commercial products (54 I.D. 183, 186).

1927 ACT PROVIDES DISCRETIONARY AUTHORITY

By 1917 the committees of Congress, after three years of hearing on leasing bills, were well aware of the existence of valuable potassium deposits in the form of leucite, a potassium aluminum silicate mineral, in Wyoming and in the form of alunite, a potassium aluminum sulfate mineral found in Utah and elsewhere. In passing the Potassium Leasing Act of 1917 it made specific provision for the leucite. Both minerals were mentioned frequently in the hearings. Congress could have specifically excluded both minerals from coverage by the 1917 act but did not do so. The Department issued its first leucite lease June 4, 1919.

Congress was also well aware in 1917 of the occurrence of potash feldspar in large quantities. During World War I four plants in the United States experimented on extraction of potash from feldspar, and at least 128 patents were issued for extracting potash from silicate rocks, chiefly from feldspar but also from leucite, glauconite, certain sericites and slates, and certain copper tailings. (65th Congress, 3d Sess., S. 5557, hearings before the Senate Committee on Mines and Mining).

In the hearings leading to the Potassium Leasing Act of 1927, potash feldspar as well as leucite, greensand (glauconite) and alunite were discussed as leasable minerals. Again they were not excluded by Congress in the resulting legislation. The 1927 act did not change the applicability of the 1917 or 1920 acts to double salts or complex silicates of potassium.

During the departmental consideration of the proposed legislation, the director of the Geological Survey was at one point asked if the bill would cover the alunite deposits located near Marysvale, Utah, and if so, whether there was any objection to their exclusion from the act. He replied that since alunite is a sulfate of potassium and aluminum, he objected to its exclusion arising from the alumina content. This, he said, would be no more logical than to exclude leucite because of associated values in alumina, the Searles Lake deposits because of associated values in boron or calcium, or the Salduro deposits of Utah because of associated values in magnesium. Since enactment, the 1927 act has been applied to all of these other deposits as well as to the very important deposits of langbeinite, a potassium magnesium sulfate mineral in the mines near Carlsbad, N.M.

The 1927 act grants discretionary authority to provide in potassium leases for the development of sodium, magnesium, aluminum or calcium deposits associated with potassium deposits but separate and distinct therefrom. The frequent occurrence of these deposits in close association made it advisable to provide this discretionary authority where dual development would be difficult or where the added production would make the development of the potash deposit economically feasible (hearings, 68th Congress, 2d Sess., (1925), Potash, H.R. 9029, p. 37).

VEIN POTASSIUM DEPOSITS NOT EXCLUDED

Potash minerals in fissure veins are leasable under both the 1917 and the 1927 acts. The legislative history as well as the terms of the acts indicate no intent to exclude them from leasing. It is beyond dispute that the House and Senate committees knew, in passing the 1917 act, that the Leucite Hills potash deposit of Wyoming is not of the desert basin type and in part at least not of the lode type, and that they knew that alunite occurred in veins at Marysvale, Utah. A proposed exclusion of potassium deposits in veins or lodes was considered but not accepted by the Congress in passing the 1917 act.

In the 1927 act, section 4 provides that "when valuable deposits of minerals now subject to disposition under the general mining laws are found in fissure veins on any of the lands subject to permit or lease under this act, the valuable minerals so found shall continue subject to disposition under the said general mining laws notwithstanding the presence of potash therein." The legislative history of this proviso shows that this means only that, for example, gold found in a separate deposit, could again (after 10 years) be mined in lands containing potassium deposits.