**Editor's note: 84 I.D. 137**

UNITED STATES

v.

THOMAS J. PECK ET AL.

IBLA 75-532 Decided March 31, 1977

Appeal from decision of Administrative Law Judge Harvey C. Sweitzer declaring mining claims null and void.

Affirmed as modified.

1. Mining Claims: Generally--Mining Claims: Locatability of Mineral: Generally--Mining Claims: Specific Mineral Involved: Clay

   In determining whether a deposit of clay is locatable as a valuable mineral deposit under the mining laws, there is a distinction between a deposit considered to be a common or ordinary clay, which is not locatable, and a locatable deposit having exceptional qualities useful and marketable for purposes for which common clays cannot be used.

2. Administrative Procedure: Burden of Proof--Mining Claims: Contests--Mining Claims: Hearings--Mining Claims: Specific Mineral Involved: Clay--Rules of Practice: Evidence

   In a Government contest challenging the validity of mining claims located for a

clay-type material, an adequate prima facie case is established where there are expert witness opinions that the deposit is only a common clay or shale and it cannot meet refractory standards. The contestees then must go forward with evidence to rebut the Government's case with a preponderance of the evidence.

3. Mining Claims: Generally--Mining Claims: Locatability of Mineral: Generally--Mining Claims: Specific Mineral Involved: Clay--Words and Phrases

"Common Clay." A "common clay" not locatable under the mining laws does not include clay having exceptional qualities which meets refractory and other quality standards for highgrade ceramic products or other products requiring a high refractoriness, or which is useful for certain industrial uses, such as in the oil and oil well drilling industries, outside the manufacture of general clay products. It does include, however, clay usable or used only for structural and other heavy clay products, for pressed or face brick, as well as ordinary brick, and for pottery and ordinary earthenware and stoneware. The fact industrial and technological changes may make a certain clay deposit valuable for a given major manufacturer of brick, tile and other clay products, because it meets its peculiar specifications for blends with other raw materials, does not warrant a change from Departmental precedents and a strong Congressional policy establishing that clay usable only for such purposes is a common clay not locatable under the mining laws.

APPEARANCES: Richard M. Mollinet, Esq., Salt Lake City, Utah, for appellants; Erol R. Benson, Esq., Office of the General Counsel, U.S. Department of Agriculture, for appellee.

OPINION BY ADMINISTRATIVE JUDGE THOMPSON

By decision dated April 16, 1975, Administrative Law Judge Harvey C. Sweitzer declared the Unitah Nos. 1 through 10 (inclusive) lode mining claims to be null and void. Thomas J. Peck & Son, Inc., Anthony T. Peck and Tony Peck, the mining claimants, appeal raising the basic issue of whether the claims were properly found to be invalid.

The Judge's decision extensively discusses much of the evidence in this case and the law, and is attached as an appendix to this decision. Repetition of that discussion shall be made only for clarity, emphasis, and an understanding of the issues raised by appellants.

The contestees are in the business of mining and hauling clays and other types of materials (Tr. 112). The material for which they located the claims is variously described throughout these proceedings as "Kamas clay," or "red pine shale." The claims are in the Wasatch National Forest in sec. 21, T. 2 S., R. 7 E., S.L.M., Summit County, Utah, near Kamas, Utah, and in an area adjacent to the Mirror Lake Highway, a scenic route (Tr. 10-11).

The Forest Service initiated the contest through the Bureau of Land Management charging: the claims were invalid because

there were not minerals "sufficient in quantity, quality, and value to constitute a discovery;" the land is nonmineral in character; and the mineral material "is a common variety of clay not subject to location under the mining laws." The primary rulings by the Judge are: (1) that the Government had established a prima facie case of lack of discovery of valuable minerals under the mining laws --"specifically, that the material in dispute is not of a quality which can be marketed profitably for commercial purposes for which common clay cannot be sold;" (2) that the contestees had failed to produce evidence of possible profitability of a mining operation, showing only "an expression of hope rather than anything supported by facts;" and (3) that the "deposits on the claims have not been shown to possess characteristics giving unusual value distinguishing them from common clays, so that they can be marketed profitably for commercial purposes for which common clay cannot be sold."

Appellants contend generally that these rulings are erroneous. They dispute the finding that the Government established a prima facie case of lack of discovery. They assert the Judge's decision is contrary to the weight of the evidence and a fair inference to be made from the evidence. They contend the Judge erred in his interpretation of the prudent man and marketability test, in his application of that test, and in ignoring certain evidence relating to the test. They have raised the issue of what the term "common

clay" should mean with regard to the locatability of a deposit of clay materials under the mining laws. They state that term was never defined by the Judge and he confused the term as applied to a classification of minerals with the word when used in relation to the frequency of occurrence of minerals. They contend, in effect, that cases involving so-called "common clay" are not applicable here.

We have recently pointed out in determining the locatability of a particular mineral deposit under the mining laws that the tests of locatability have stemmed from interpretations of the phrases in the mining laws "lands valuable for minerals" (R.S. § 2318, 30 U.S.C. § 21 (1970)) and "valuable mineral deposits" (R.S. § 2319, 30 U.S.C. § 22 (1970)). United States v. Bolinder, 28 IBLA 187, 83 I.D. 609 (1976). In contexts considering whether land was mineral in character so as to except it from certain nonmineral public land laws, as well as cases directly pertaining to the location of mining claims for a particular substance, very general definitions have evolved. These definitions have included classifications of minerals by standard authorities, in industrial practices, and certain economic values for commercial uses. Id. The interpretations of these very general phrases have resulted in many disparate materials considered as locatable mineral deposits under the mining laws, while others have not. E.g., see cases cited in United States

v. Bolinder, supra. In Bolinder there had been only one case specifically concerning geodes, and that case was distinguished because of its peculiar factual circumstances, and because it had not involved actual mining operations for a deposit of geodes.

[1] Unlike the Bolinder case where there was no clear precedent nor Departmental policy manifest concerning the locatability of geodes, here there are many precedents, a strong Departmental policy, and a manifest Congressional policy concerning the locatability of deposits of clay. In short, as will be discussed, infra, there has been a distinction between what has been called "common" or "ordinary" clay which has not been considered a "valuable mineral deposit" within the meaning of the mining laws, and deposits of clays having exceptional qualities useful for purposes for which common clays cannot be used, which make them locatable as valuable mineral deposits.

While neither the Judge, nor we, can probably fashion a definition of "common clay" which would satisfy lexicographers, semanticists, or appellants, some meaning can be enfused into the term by considering the authorities involving the locatability of clay under the mining laws and comparing them with the evidence in this case. 1/

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1/ Before considering the cases involving clay and clay-type materials, we take official notice of some relevant dictionary definitions of clay, some constituents of clay; and certain clay

There is no dictionary definition of "common clay," although there is a dictionary definition, quoted in footnote 1, of "common-brick clay." Other dictionary definitions given in footnote 1 show distinctions between a type of clay and clay product based

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fn. 1 (continued)
substances and products. These definitions are contained in A Dictionary of Mining, Mineral and Related Terms, Bureau of Mines, U.S. Department of the Interior (1968). This is a work of noted repute which has brought together technical, scientific and industrial definitions from many sources. The words or phrases, their quoted definition and in brackets the page of the dictionary in which they are found, are set forth below:

"clay. a. A fine-grained, natural, earthy material composed primarily of hydrous aluminum silicates. It may be a mixture of clay minerals and small amounts of nonclay materials or it may be predominantly one clay mineral. The type clay is determined by the predominant clay mineral present (that is, kaolin, montmorillonite, illite, halloysite, etc.). Bureau of Mines Staff. It is plastic when sufficiently wetted, rigid when dried en masse, and vitrified when fired to a sufficiently high temperature. ASTM C242-60T. See also fire clay; clay mineral; bentonite. b. It has three aspects: (1) a natural material with plastic properties; (2) an essential composition of particles of very fine size; and (3) an essential composition of crystalline fragments of minerals that are essentially hydrous aluminum silicates or occasionally hydrous magnesium silicates. The term implies nothing regarding origin but is based on properties, texture, and composition, that are interrelated, for example, the plastic properties are the result of the constituent minerals and their small grain size. A.G.I. c. Soil consisting of inorganic material, the grains of which have diameters smaller than 0.005 millimeter. A.G.I. d. According to international classification, it has a grain size less than 0.002 millimeter. C.T.D. e. A general term applied to the material added to water to prepare a drilling mud. Long. [214]

"illite. A silicate of potassium, aluminum, iron, and magnesium with water, * * * gray, light green, or yellowish-brown color. A general term for the clay-mineral constituent of argillaceous sediments belonging to the mica group. The relation of illite to similar or identical material known variously as hydromica, hydrous micas, hydromuscovite, and hydrated mica group is not clearly established. Occurs in micaceous particles less than one micron. Obtained from clays and shales in Illinois. Compare pholidoide;

upon the use of the materials, the chemical make-up of the materials, their physical properties, and their characteristics when fired. Some of these same distinctions have been made in the case law involving clay. The use of the material, of course, may depend upon the other characteristics since they will affect the usability of the material for a given purpose.

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fn. 1 (continued)
phyllite. English; Stokes and Varnes. b. A discredited term equal to bravaisite. American Mineralogist, v. 28, No. 3, March 1943, p. 214. [570]

"kaolin. a. A clay, mainly hydrous aluminum silicate, from which porcelain may be made. Also called China clay; porcelain clay. See also kaolinite. Sanford. b. A refractory clay consisting essentially of minerals of the kaolin group and which fires to a white or nearly white color. ASTM C242-60. c. A white or nearly white clay resulting from the decomposition of feldspar. B.S. 3618, 1964, sec. 5. [606]

"kaolinite. A common clay mineral. A two-layer hydrous aluminum silicate, * * *. It consists of sheets of tetrahedrally coordinated silicon joined by an oxygen shared with octahedrally coordinated aluminum. Essentially, there is no isomorphous substitution. Monoclinic. The mineral characteristic of the rock kaolin. The kaolin group of minerals includes also the recently recognized isomers, dickite and nacrite. A.G.I.; Dana 17. [606]

"brick clay. An impure clay, containing iron and other ingredients. In industry the term is applied to any clay, loam, or earth suitable for the manufacture of bricks or coarse pottery. Also called brick earth. C.T.D. [139]

"common-brick clay. A red-to-brown burning clay which usually has a high percentage of fluxing impurities, is plastic enough for shaping, and fires to a very hard and strong solid with little warping or cracking at a relatively low temperature.

"pressed brick clay. A better grade clay than that usable for common brick. It must have a uniform color, must not warp or crack, be fairly hard and have low absorption when burned at a moderate temperature, and must be free from soluble salts. CCD 3d, 1942, p. 195. [860]

"fire clay. a. A clay that is high in alumina or silica; diffusion is not less than cone 19 (1,515 degrees C.). Fire clays may be sedimentary or residual, plastic or nonplastic, and are dominantly composed of kaolinite. The classification of fire clays

Appellants object to references to Bureau of Mines classifications of clay as not comporting with industrial classifications.

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fn. 1 (continued)
may be related to the composition, fiscal characteristics, refractoriness, use, association with other materials, etc., such as plastic fire clays, nonplastic fire clays, highalumina fire clay, siliceous fire clay, flint clay, coal measure fire clay, sagger clay, high-heat duty fire clay, etc. Bureau of Mines Staff. b. An earthy or stony mineral aggregate which is composed essentially of hydrous silicates of aluminum with or without free silica. It is plastic when sufficiently pulverized and wetted, rigid when subsequently dried, and of sufficient purity and refractoriness for use in commercial refractory products. HW. c. Formerly used for almost any soft nonbedded clay immediately underlying a coalbed many of which are not refractory. Compare underclay. A.G.I. Supp. d. Soft, unbedded, gray or white clay, high in silica and hydrated aluminum silicates, and low in iron and alkalies. Fire clay forms the seat earth of many coalbeds and has value as refractory clay. Also called bottom stone. Raistrick and Marshall, p. 22. e. A stratum of rock found in anthracite mines which disintegrates on exposure to air. Hudson. [429]

"brick. a. A molded block of clay or other material, usually fired and sintered together to form a coherent mass. The standard size building brick unit is 8 1/2 X 4 1/4 X 2 1/4 inch, while the standard size firebrick unit is 9 X 4 1/2 X 2 1/2 inch. However, many firebrick consumers now prefer to use a 9 X 4 1/2 X 3 inch brick as the standard unit. A.I.S.I. No. 24. b. A solid masonary unit of clay or shale, usually formed while plastic into a rectangular prism and burned or fired in a kiln. ASTM C43-65T. c. A block of bonded abrasive used for rubbing down castings, scouring chilled iron rolls, polishing marble, and work of like nature. ACSG, 1963. [139]

"brick, alumina; high-alumina brick. A refractory brick of a higher alumina content than ordinary fire clay brick. It is made from several alumina materials, such as disapore, bauxite, kaolin, etc. A large use of brick of this type is in the hot zone portion of rotary lime, cement, or dolomite kilns as well as in the firing zone of shaft lime kilns. High-alumina brick is also used in certain portions of large boiler settings and in ceramic kilns of both the continuous and the periodic types; in brief, it finds application under certain types of conditions where the service is very severe. See also refractories. CCD 6d, 1961. [139]

"clay building brick. Brick for normal constructional purposes; such brick can be made from a variety of brick clays. Relevant British Standards are B.S.-657 (Dimensions) and B.S.-1257 (Testing). The United States Standards are - ASTM-C62 (Building

However, they have not pointed to any definite industrial classifications which could serve to define or limit the term common clay.

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fn.1 (continued)
Brick); ASTM-C216 (Facing Brick), and ASTM-C67 (Sampling and Testing). Dodd. [214]

"fire clay brick. A refractory brick manufactured substantially or entirely from fire clay. HW. See also first quality fire clay brick; second quality fire clay brick; third quality fire clay brick. AISI, No. 24. [249]

"pressed brick. A high-grade brick used for exposed surface work. Crispin. [860]

"refractory brick. a. A brick made from refractory material such as fire clay, bauxite, disapore, etc., used to withstand high temperatures. Refractory brick are made in various sizes and shapes; the most common sizes are 9 X 4-7/16 X 2 1/2 inches, 9 X 6 X 2 1/2 inches, and 13 1/2 X 6 X 2 1/2 inches. Bureau of Mines Staff. b. A brick which is used as a lining for the interior of fireboxes in furnaces and boilers. Refractory brick is constructed so that it can withstand very high temperatures, but it is not a very good insulator. API Glossary. [908]

"refractory clay. Any clay showing a pyrometric cone equivalent of not less than cone 27. ACSB-1. See also fire clay [908].

"potter's clay; pipe clay. a. A pure plastic clay, free from iron, and consequently white after burning. Fay. b. A clay adapted for use on a potter's wheel, for the manufacture of pottery. A.G.I. [854]

"earthenware clay. A plastic, fine textured clay, nearly free from lime and gypsum (as they cause blistering); air shrinkage less than 8 percent; slakes in a few minutes or requires grinding which is usually too expensive; no cracking in air; tensile strength, 125 pounds per square inch, or more; incipient vitrification reached between cones 010 and 05; vitrification at least two cones higher; color, burned usually, not important unless very bad; fire shrinkage, 8 percent maximum. Hess. [368

"stoneware. a. Ceramic ware fired to a hard dense condition and with an absorption of less than 5 percent; not translucent; it may be underglazed, salt glazed, or glazed with hard feldspathic glazes. ACSG. b. A vitreous or semivitreous ceramic ware of fine texture, made primarily from nonrefractory fire clay. ACSG.[1081]

"stoneware clay. a. A clay suitable for the manufacture of stoneware; it possesses good plasticity, vitrifies between cones 4 and 10, and has a long firing range. The fired color is buff to gray. ACSB-1. b. Clay which ranges from inferior material through semi-refractory to firebrick clay. It should have a tensile strength of 125 pounds or more pounds per square inch; low fire shrinkage; enough plasticity and toughness for shaping; no lime or Fe-bearing concretions; and very little coarse sand. CCD 3d, 1942, pp. 195-196. [1081]"

As the evidence to be discussed, infra, will reflect, the use of clay materials may depend upon the particular specifications of a clay product manufacturer. This is also reflected in a publication of the Bureau of Mines. In addition to the definitions in the footnote, we take official notice of this Bureau of Mines publication, Mineral Facts and Problems, 1975 ed., which, at 254-55, defines common clay as one of six different classification groups of clay, as follows:

> Common clay is defined as a clay or claylike material that is sufficiently plastic to permit ready molding and vitrification below 1,100 [degrees] C. Shale is a consolidated sedimentary rock composed chiefly of clay minerals that has been both laminated and indurated while buried under other sediments. The common clays and shales are chiefly illitic or chloritic. The materials may also contain some kaolins and montmorillonites and are usually higher in alkalies, alkaline earths, and ferruginous minerals and much lower in aluminum than the high-quality kaolins, fire clays, and ball clays. The presence of iron usually imparts a reddish hue after firing. There are no specific recognized grades based on preparation, and very little terminology based on usage, although such a clay may sometimes be referred to as common, brick, sewer pipe, or tile clay. Specifications are based on the physical and chemical tests of the products.
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> Although many specifications have been established by the American Society for Testing and Materials, American Foundrymen's Association, American Oil Chemists Society, American Petroleum Institute, Technical Association of the Pulp and Paper Industry, and other national organizations, many producers and consumers rely on their own tests and specifications applicable to their

> specific needs. The tolerance limits of mineralogical composition, particle size, and other physical and chemical properties also are determined largely by individual requirements. Detailed data on specifications are included in Bureau of Mines Bulletin 565 (8) * * *.

We next turn to the case authorities involving clays for particular understanding of the applicability or non-applicability of the mining laws to clay deposits.

Early in the administration of the General Mining Laws of May 10, 1872, 30 U.S.C. § 21 et seq. (1970), the mineral character of land or locatability of a clay deposit depended upon the usability of the deposit for various purposes. Thus, it was held that ordinary brick clay suitable for making ordinary brick and tile products did not make the land mineral in character and the deposit was not locatable under the mining laws. King v. Bradford, 31 L.D. 108 (1901); Dunluce Placer Mine, 6 L.D. 761 (1888); and Blake Placer, decided January 17, 1889 (unreported but discussed in King v. Bradford, at 109-10).

In 1891 the Commissioner of the General Land Office gave his opinion that a mining claim containing a deposit of "ordinary potter's clay is not subject to entry under the mineral laws." 18 Copp's Land Owner 15. In an opinion to the Register and Receiver, Helena, Montana, that same year, he also indicated that

"deposits of ordinary earthenware, pottery, pipe, or brick clay" are not subject to entry. 18 Copp's Land Owner 15. He recognized that a deposit of "fire clay" or "Kaolin" could be located, but emphasized that "it must be positively established" that the deposits are in sufficient quantity to make it of pecuniary advantage to work for that purpose, that such lands are more valuable for the "fire clay" than any other purpose, and that the entry is made in good faith for the purpose of developing and working its mineral resources and for no other purpose. Id. In a much later case, Mrs. A. T. Van Dolan, A-26443 (October 14, 1952), evidence that clay could be used for making fire-resistant products and ceramics was not sufficient to make the clay an uncommon type which was locatable.

The question of the locatability of deposits of fire clay is not completely clear from the cases and may depend upon the quality of the deposit and its uses. The Secretary of the Interior had ruled in The Dobbs Placer Mine, 1 L.D. 565 (1883), that a deposit of fireclay or kaolin should be located as a placer location and not a vein or lode. In Alldritt v. Northern Pacific R.R. Co., 25 L.D. 349 (1897), (1897), the Acting Secretary ruled that land chiefly valuable for deposits of fire clay is subject to entry under the mining laws and excepted as "mineral lands from a railroad grant." He noted that the evidence showed the land was not valuable for other purposes,

but was underlaid with fire clay "of a superior quality, which crops out in various places." 25 L.D. at 351. Nevertheless, in Jordan v. The Idaho Aluminum Mining and Mf'g Co., 20 L.D. 500 (1895), a deposit was alleged to be valuable for fire clay, kaolin and aluminum. The evidence indicated an immense deposit of clay which was valuable for the manufacture of pressed brick. No other use was indicated except testimony that the deposit contained aluminum, but there was not a sufficient quantity of aluminum to be in paying quantities. The decision decided the deposit did not make the land mineral in character. It is apparent that the fire clay or kaolin and its commercial use for pressed brick was not considered as sufficient to make the land mineral in character. Similarly, in Holman v. State of Utah, 41 L.D. 314 (1912), there was an allegedly valuable deposit of fire clay within an area selected by the State. This was not considered sufficient to warrant the land classified as mineral in character. The decision did not discuss the material except to point out the fact there are vast deposits of clay which, because of a temporary local demand for brick, could be used profitably. It concluded, however, that except for deposits of clay of such exceptional nature as to warrant entry of the lands under the the mining laws, the lands should not be considered mineral. It appears, therefore, that even if a deposit contains fire clay, if it is only usable for brick, including pressed brick, the deposit is not locatable under the mining laws.

Clay which was suitable for use in the manufacture of Portland cement was not locatable under the mining laws. Bettancourt v. Fitzgerald, 40 L.D. 620 (1912). In reaching this conclusion, the decision emphasized the following: the widespread distribution of the clay, the small element of cost of the manufactured product in relation to the value of the clay in its natural state in place, the fact the practicable availability of the clay as a cement ingredient was "so largely dependent upon the existence of certain extremely favorable artificial as well as natural conditions, it cannot properly be regarded in and of itself as a valuable mineral deposit within the meaning of the mining laws" [at 621]. Where clay had been sold to a plaster contractor but evidence showed it was not naturally absorbent and probably could not be used as a catalytic agent, it was deemed common clay not locatable under the mining laws. United States v. Shannon, 70 I.D. 136 (1963). Likewise, in United States v. O'Callaghan, 8 IBLA 324, 79 I.D. 689 (1972), clay sold as an additive in cattle feed, but which did not possess characteristics distinguishing it from common clays, was not locatable. The case was affirmed in O'Callaghan v. Morton, Civil No. 73-129-S (S.D. Cal., May 13, 1974), but remanded in part to determine the validity of one claim based on sand and gravel deposits.

On the other hand, the exceptional clay deposits which have been recognized as locatable under the mining laws are: Fred B. Ortman, 52 L.D. 467, 469 (1928), a "colloidal clay, which has value for different purposes, principally the filtering of oils in the process of refining" (however, the nature of the deposit was not in issue in that case); United States v. Barngrover (On Rehearing), 57 I.D. 533, 534 (1942), "one of the better, if not the best, grade of rotary mud used in the oil fields of Southern California." In United States v. Gunn, 7 IBLA 237, 79 I.D. 588 (1972), a deposit of bentonite clay did not meet commercial standards for certain uses for which some other bentonite clays are suitable; namely, for a bleaching clay for decolorization of crude oils, or as a rotary drilling mud. The latter is the use recognized in Barngrover and the former is similar to that in Ortman. Because the bentonite in Gunn was not of a quality and quantity which could be marketed profitably for commercial purposes for which common clay cannot be sold, the clay was not locatable.

One of the leading cases concerning the locatability of clay, United States v. Mattey, 67 I.D. 63 (1960), recognized that deposits of clay of an exceptional nature may be locatable. However, the Department pointed out that the only unusual qualities attributed to the deposit in that case were certain "impurities" or flux

materials useful in the manufacture of vitrified sewer pipe. The decision noted that sewer pipe, brick and drain title are usually classified as heavy clay products and clay deposits usable only for such purposes are generally not locatable. However, it noted (at 68):

> * * * if the deposit is in itself of the type of clay not subject to location under mining laws, the fact that it is used in combination with purer clays cannot remove it from the proscribed category. In other words, the use to which a common clay is put cannot make the lands in which it is found subject to location under the mining laws, if the use is not dependent upon any unusual characteristics of the clay itself. It would be different if a clay with unusual characteristics which could be used in the manufacture of ordinary brick were used to ma[k]e a product for which its unusual characteristics were essential. * * *

We turn now to the manifested Congressional policy. By section 1 of the Materials Act of July 31, 1947, as amended, 30 U.S.C. § 601 (1970), Congress has authorized the disposal of mineral materials "including but not limited to common varieties of sand, gravel, * * * clay" unless disposal is not otherwise expressly authorized by law, including the mining laws of the United States. In United States v. Mattey, supra at 65-66, the legislative history of this bill was quoted in part where the Under Secretary of this Department reported on the bill, indicating it would apply to:

> 2. Sand, stone, and gravel not of such quality and quantity as to be subject to the mining laws but which

> are desired by local governments, railroads, local industries, ranchers, and farmers for the construction and maintenance of highways, secondary roads, railroads, structures of various kinds, and farm and ranch improvements.
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> * * * * * * *
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> 4. Common earth to be used for road fills, earth dams, stock-watering reservoirs and similar uses.
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> 5. Clay to be used for the manufacture of bricks, tile, pottery, and similar products. (S. Rept. No. 204, 80th Cong., 1st Sess.)

This quotation indicates the understanding of Congress concerning the locatability of the substances mentioned. It is interesting to compare the statement concerning sand, stone and gravel with that concerning clay. There was recognition that a deposit of sand and gravel of a certain quantity and quality may be subject to the mining laws, whereas other deposits would not even though there would be a local economic demand for such materials. However, the statement regarding clay was more similar to the statement concerning common earth which has never been considered to be locatable under the mining laws. The statement on clay specifically referred to certain uses, the manufacture of bricks, tile, pottery, and similar products. There was no recognition that any deposit of clay of a certain quality or quantity used for such purposes could be locatable under the mining laws. This understanding of Congress concerning the nonlocatability of common earth and of clay used for the enumerated purposes was undoubtedly the reason Congress saw no need to

list either clay or common earth as one of the "common varieties" of materials excluded from the mining laws by section 3 of the Surface Resources Act of July 23, 1955, 30 U.S.C. § 611 (1970), because common earth and common clay were never considered locatable under the mining laws.

We noted in United States v. Gunn, supra at 248, that although many of the criteria in determining what constitutes a common variety of material under section 3 of the Surface Resources Act may be applicable in determining whether a deposit of clay is locatable generally, the basis for the determination should not be confused.

[2] With this background of the law and policy that has developed concerning the locatability of clay deposits, we turn to appellants' contentions. We cannot agree with appellants that the Government failed to make a prima facie case. As the law and policy discussed above indicates, there has been a sharp distinction between clay deemed to be a common or ordinary clay and a deposit having exceptional qualities which makes the clay suitable for purposes for which ordinary clay could not be used. There were opinions by the Government's expert witnesses that the clay or shale material within these claims is similar to that found in great abundance in that particular local area of Utah, that the material cannot meet refractory standards, and that the material is only a common or

ordinary material not having any exceptional qualities. These opinions and evidence were sufficient to establish a prima facie case that the material within the claims was not locatable under the mining laws. It was, therefore, incumbent upon the appellants-contestees, who bear the ultimate risk of nonpersuasion, to go forward with their own evidence to rebut the Government's case with a preponderance of the evidence. Cf. Foster v. Seaton, 271 F.2d 836 (D.C. Cir. 1959). In reviewing the evidentiary record, we must consider all the evidence presented. Thus, even if there were any deficiencies or weaknesses in the Government's case, evidence submitted by appellants which tends to support the Government's position may be used to overcome those deficiencies. United States v. Taylor, 19 IBLA 9, 82 I.D. 68 (1975).

[3] Appellants attempted to establish that these clay deposits should not be considered as common or ordinary, but that the material has unique and exceptional qualities. The General Manager of the Interstate Brick Company, one of two brick manufacturers in Utah, testified. He gave a brief history of brick manufacture in Utah and the Intermountain West. When the area was first settled, certain clays found in abundance in valleys in the Intermountain area, and which he calls "valley clays," were used locally for brickmaking by many different brick dealers and the settlers. However, instead of there being hundreds of brickmakers, now there are only two. The manufacture of brick and other clay products has become sophisticated and specifications for the clay materials have changed.

Certain qualities in a clay deposit are sought. Many tests are conducted on various clay deposits to ascertain if it will meet the specifications of the company, and only a very few deposits are found which are acceptable to the needs and requirements of the company. His company found this deposit desirable in part because it was a color the company had been seeking (Tr. 105). His company proposed to use the clay in blends combining other clays and silica sand for manufacturing brick, floor tile and similar products.

Another witness of the appellants, Dr. Ivan Cutler, an expert in the field of ceramic engineering, disputes the classification of this deposit as a common clay. He testified that the term "common clay" is not generally used in industry classifications, but that if he were to use it, he would apply it to the so-called "valley clays" from which brick had formerly been made locally. He testified the deposit had several unique characteristics including its strength, firing temperature range (in the lower range), its plasticity, and permeability which make it desirable for use in a modern face-brick industry. On cross-examination he admitted (at Tr. 166) that there are many deposits of clay and types of clay, and each one might be different and thus "unique" in that sense. He also testified the material could probably be used in making stoneware.

Appellants' evidence generally shows that the material from the claims, at least that from the one exposed pit, may be of good

quality for brick and tile making. It is evident the material meets the particular specifications of the Interstate Brick Company as it can be used with its particular blends for manufacturing brick, tile and other clay products. Although the low firing temperature of the Kamas clay may be desirable for a mix with a material having a higher temperature range to achieve a desired manufacturing effect, it is conceivable that a mix with other materials would not achieve the desired effect. The evidence did not show whether the clay meets special specifications or requirements for other manufacturers of clay products.

There was little, if any, probative evidence that the material from these claims could be marketed successfully for use in making stoneware or other products except for those structural products made by the Interstate Brick Company. The gist of appellants' case rests upon the desirability of the deposit for that company's particular blend requirements.

The crucial issues this appeal raises are whether the changes in the brick and other clay-product manufacturing industry warrant a change in the interpretation of the mining laws for clay deposits. In other words, does the fact a given clay deposit may meet the particular specifications of a large brick and tile manufacturer, whereas many other available deposits would not meet those specifications, impel a determination that the desired clay deposit should

be considered a valuable mineral deposit under the mining laws? Or does the fact a particular deposit may be of a better quality for the manufacture of certain other clay products, as possibly pottery, earthenware, or stoneware, than other widespread clay deposits, impel such a conclusion? We must answer no to these questions.

We appreciate that technological and industrial changes may imbue minerals with economic values that did not exist before such developments created a particular demand for the mineral. The history of uranium most dramatically demonstrates this. However, the change in technology which created a demand for uranium was not simply an improvement of existing techniques and manufacturing processes using similar substances. It was a completely new technology created by new theoretical and practical concepts and applications. The use to which uranium is put is not a use that any ordinary material could serve if necessary. Uranium has an intrinsic value which may be affected, as is the case with most metallics, by circumstances causing changes in world-wide and national prices for the mineral.

With this deposit of clay, however, there is no intrinsic value which can be measured by a world-wide or national market for the mineral. The major value which can be imparted to this deposit depends primarily upon the special needs and requirements of one major local manufacturer of clay products. We do not know whether

this particular deposit would meet the needs and specifications of other manufacturers. Further, although this deposit is of better quality and would meet the specifications of that manufacturer, the major proposed use for the material could be served, if needed, and as was done in the past, by other commonly available clays with some alterations in the manufacturing processes.

Undoubtedly by 1947 when the Materials Act was passed, as well as at the time of the hearing in this case, there had been technological changes in the manufacture of brick and clay products from the early days when the area was being settled. Nevertheless, brick, tile, pottery and similar uses were expressly mentioned in the legislative history as uses for clay which could be sold under that Act, rather than located under the mining laws. We are not persuaded that there is a sufficient evidentiary basis or other reason for distinguishing this case from the past precedents and strong Congressional policy. While for the purposes of a major manufacturer, this deposit may have uniquely desirable qualities in comparison with other widespread clay deposits, it may not be so uniquely desirable for other manufacturers with different specifications and requirements.

In referring to "common clay" which is not locatable under the mining laws, the precedents demonstrate that clay used only for structural brick, tile, and other heavy clay products, and pressed

or face brick, falls within that classification. They also demonstrate that clay deposits useful only for pottery, earthenware, or stoneware which cannot meet the refractory and other quality standards for high-grade ceramic products, such as china, come within that classification. The exceptional qualities that have been recognized as taking a deposit outside the classification of a common or ordinary clay within the meaning of the mining laws are, as mentioned, clays having a sufficiently high refractoriness to meet the standards for products requiring such special qualities. In addition, certain clays with special characteristics making them useful for particular uses, such as in the oil and oil well drilling industries, outside the manufacture of general clay-products, have been considered locatable. We realize that the classifiction of clay deposits as locatable or nonlocatable because they do not have these special characteristics and uses may not coincide with some classifications used by industry, if there are any such definite classifications, which has not been shown. See quotation from Mineral Facts and Problems, supra. However, these distinctions are well engrained in the interpretations of the mining laws. We adhere to such distinctions.

We note that it is not significant in this case whether the deposit could be profitably marketed for use in the manufacture of brick, tile, pottery and such other clay products, or whether the

deposit may be of better quality than many other deposits for those purposes. United States v. Mattey, supra. The fact material may be marketable at a profit for purposes not recognizable under the mining laws may not be considered in determining the locatability and marketability of a deposit for cognizable purposes. Cf. United States v. Taylor, supra. The uses to which appellants propose to sell these materials are not uses which have been recognizable under the mining laws. They are limited to the structural or heavy clay products, face brick, and possibly pottery, stoneware or earthenware. Appellants have not shown that the material from this deposit can meet refractory standards for high-grade ceramic products. They have not shown the deposit can be used for other industrial purposes for which ordinary clays cannot be used such as those in the oil and oil well drilling industries. In short, they have not shown the deposit has the type of exceptional qualities which have been recognized as distinguishing the deposit from other clay deposits considered as common or ordinary clays under the mining laws.

We agree with the Administrative Law Judge that appellants have not shown the clay can be marketed profitably for uses for which common clays cannot be used. We modify the decision to the extent of emphasizing that there is an insufficient showing that this deposit has the exceptional qualities which would take it outside the purview of being considered a common clay under the mining laws.

Accordingly, pursuant to the authority delegated to the Board of Land Appeals by the Secretary of the Interior, 43 CFR 4.1, the decision appealed from is affirmed as modified.

Joan B. Thompson
Administrative Judge

We concur:

Martin Ritvo
Administrative Judge

Anne Poindexter Lewis
Administrative Judge

April 16, 1975

| | | |
|---|---|---|
| UNITED STATES OF AMERICA, Contestant | : | UTAH 10704 |
| | : | Involving Uintaj Lode |
| | : | Mining Claims #1 thru |
| v. | : | #10 inclusive, situated |
| | : | in Sec. 21, T. 2 S., R. |
| | : | 7 E., Salt Lake Meridian, |
| THOMAS J. PECK & SON, INC., | : | Summit County, Utah. |
| ANTHONY T. PECK and | : | |
| TONY PECK, Contestees | : | |

DECISION

Appearances: Erol R. Benson, Esq., Department of Agriculture, Ogden, Utah, for Contestant; Richard M. Mollinet, Esq., Hatch, Kirsch, Mollinet, Bates, Crofts & Gill, Salt Lake City, Utah, for Contestees.

Before: Administrative Law Judge Sweitzer

This proceeding was initiated by a complaint dated August 31, 1973, issued by the Utah State Office, Bureau of Land Management, U.S. Department of the Interior, at the behest of the Forest Service, U.S. Department of Agriculture. The complaint alleges that the subject mining claims are not valid because:

> 1. There are not presently disclosed, within the boundaries of the mining claims, minerals of a variety subject to the mining laws sufficient in quantity, quality, and value to constitute a discovery.

2. The land is nonmineral in character.

3. The mineral material claimed as the basis for the mining claims is a common variety of clay not subject to location under the mining laws.

Contestees answered and generally denied the said charges. Pursuant to due notice a hearing was held in Salt Lake City, Utah. Thereafter, contestant and contestees filed briefs. Said briefs, as well as the complete evidentiary record of the case, have been considered in writing this decision.

Summation of the Evidence

Stephen A. Scott testified to being the District Forest Ranger administering the Forest Service land within the boundaries of which lie the contested claims. He stated the land covered by the claims has significant value for such purposes as scenery, recreation, watershed protection, grazing and wildlife.

David H. Crockett testified as a mineral examiner with the Forest Service. He related receipt of a Bachelor of Science degree in geology and of twenty-odd years experience in the field of geology. He testified to familiarity with the contested claims and as to certain studies he had made to familiarize himself with clay minerals. His testimony shows that for his professional knowledge pertaining to clays and like materials, he relied in significant part on professional publications of the Bureau of Mines and other geology related agencies. He described the general geologic setting of the claims as being composed largely of a formation known as "Red Pine Shale" (Tr. 29), and said that formation "rings the Uintah Mountains in general on both the north and west ends and the south flank." (Tr. 30)

Mr. Crockett told of making examinations of the claims in the early 1970's and obtaining samples from an exposed pit on Uintah Lode No. 2. (Tr. 31-32, Ex. 2) He said he took four such samples in the company of a representative of contestees and delivered them to the Pittsburg Testing Laboratory office, located in Salt Lake City, for testing. Following splitting and combining, they were sent to various laboratories for a series of tests for such things as hardness, percentage of

shrinkability, water plasticity, drying strength and potential uses of this type of material. He stated that the requested tests included testing for "pyrometric cone equivalent" (PCE), which he explained to be a test of refractory characteristics of a material when subjected to increasing temperatures. He said his limited research indicated material having a PCE below 19 is not considered refractory material. 1/

Based on the testing results received (Ex. 3), including PCE showings of below 19, Mr. Crockett concluded the material to not be a refractory clay; rather, he characterized it as follows, "It is a common variety of a shale or shale-like material, which there is an awful lot of it. It is not refractory." (Tr. 37) Mr. Crockett calculated a cost of approximately $ 3.35 per ton to load and deliver the materials from the claims to Salt Lake City, a distance of some 67 miles. 2/ (Tr. 38-41)

Respecting samples of materials from the claims fired at temperatures of between 1800 and 2300 degrees Fahrenheit, Mr. Crockett gave as his opinion of the differences created by the various firing temperatures:

> Well, the first noticeable thing that I saw was a color change as the temperature increased. The next thing that I noticed, personally, was that as the temperature increased, the degree of deformation began to take place,

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1/ A Dictionary of Mining, Mineral, and Related Terms (U.S. Bureau of Mines, 1968, at p. 908) defines "refractory" in part as "A material of a very high melting point with properties that make it suitable for such uses as furnace linings and kiln construction. . . ." and "refractory clay" as "Any clay showing a pyrometric cone equivalent of not less than cone 27. . . ."

2/ Actually the testimony at Tr. 38-41 is confusing, as to whether the 67 miles, and the calculation based thereon, intends Salt Lake City or West Jordan, Utah, where contestees' witness Cahoon subsequently stated the Interstate Brick Company plant is situate (see p. 7 infra). However, for purposes of this decision the confusion on this point is not material. I take official notice that West Jordan, Utah is some ten miles, more or less, southwesterly of Salt Lake City.

> a little checking, and what appears to me, as far as I can tell, a little bloating, as it got higher. (Tr. 43)

Illustrating with a map (Ex. 4), Mr. Crockett gave the following observations relative to the existence of the same or similar materials to that which he observed on the mining claims at issue:

> Well, I have observed this particular formation in a number of different places, for an equal number of different reasons, and have found it to be fairly consistent in its nature. There are certain local variations. You might get an increase in imbedded quartzite within the formation. In other localities you may even find that the same formation may disappear for a short distance. Whether this is a structural geologic problem or not, I'm not prepared to state, but it's a fairly consistent formation that rings at least the western half of the Uintah Mountains.
>
> * * *
>
> It would run into billions of tons of material. I might state, though, that the average thickness of the formation where it can be measured is around 1,000 or 1,200 feet. (Tr. 46-47)

Mr. Crockett described a microscopic study he made of the material from the claims in the following manner:

> Well, I observed the fact that it was predominantly a mixture of what appeared to be fine grained chlorite, some sericite mica, which is common muscovite, and quartze [sic]. Under the polarizing microscope it appeared to have some small parts of barite and there were some iron oxides that were also present, but I did not make a determination of the amounts. There was a lot of the material that was extremely fine-grained, probably of the five micron or two micron class, which

> would place it as a clay. Then in conjunction with Mr. Cather, an employee and geologist with the Bureau of Mines, we ran a differential thermal analysis on the sample. I was merely an observer, and the test failed to produce a thermogram typical of either a montmorillonite or a kaolinite clay.
>
> * * *
>
> . . . The sample appeared to have some very poor bedding to it, that is, the bedding planes as it was deposited as a sediment. It apparently was deposited under rather mixed conditions, and the bedding is not a clearly defined structural bedding, as you might find in a sandstone. i felt, from my examination under the microscope, that the large predominant amount of particle size was siltstone. However, that is a subject of conjecture, I'm sure. We did not get a thermogram that did show either a montmorillonite or a kaolinite, but that does not say that there are not clay-sized particles in the material. (Tr. 59-60)

In response to whether he would classify the materials as a "lode or placer type of deposit," he stated, "I would be most inclined to classify that as a placer because of its size and extent." (Tr. 60)

On cross-examination Mr. Crockett admitted that his studies relating to usages of, and values of, clay materials were limited. He acknowledged that clays could be used for purposes other than making refractory products. He stated that he knew of no place where "Red Pine Shale" could be found except the area around the foot of the Uintah Mountains. He said that although he believed the materials in question were not truly clay but siltstone, that illite is also one of the clay minerals, and that he made no tests to determine whether illite was present. He conceded also that he did not know how local variations in clays would affect the usability or the profitability of clay. (Tr. 72)

William L. Johnson testified as a Forest Service mining engineer. He testified to his having been employed for

about 15 years as a mining engineer and geologist and stated that while employed in California he examined numerous clay deposits in that state. He testified to his having examined the claims at issue. He stated that based upon his examination, and upon the results of the tests of samples that ". . . I would conclude that the material is a common variety of shaley siltstone or silty sandstone. It is not a true clay, in the sense of the word or in the mineralogical definition." (Tr. 75-76) With regard to whether the material would be properly locatable as a placer or a lode claim, he stated that in his opinion it was a placer material, and he said that there were "numerous clay sources" in Utah. (Tr. 82)

On cross-examination, he responded in part as follows:

Q Do you know whether the clays from any one particular source are used exclusively in the manufacture of face brick, without mixing with any other material?

A Normally, from my experience in California, I can say that it is quite common to have a blend of clays.

A Then, is it not possible, Mr. Johnson, from your previous testimony, that clays might be located for different characteristics which they could contribute to a finished product?

A This is correct. If clay happened to be low, say, in iron, for coloration they may have to bring in either iron oxide or some clay that was higher in iron. There may be mixing of clays to obtain a desired color and a uniformity.

Q . . . Do you know of any location within a 200 mile radius of Salt Lake City where a clay with these identical characteristics of the red pine shale can be located?

* * *

A I do not know of any -- from my own personal knowledge I do not know of any other deposits of a shale identical to this shale in composition and characterization. I have had no occasion to sample it, but I do not know of any. (Tr. 83-84)

Harold P. Cahoon, called to testify by contestees, advised that he is the General Manager of Interstate Brick Company located at West Jordan, Utah. He testified that he has a Doctorate degree in ceramic engineering, and degrees also in mineralogy, and that he has been actively engaged in the field of ceramic engineering since completing his education in the 1950's. He is a member of the American Ceramics Society. With respect to research he has done in the testing and classification of clays, he testified "At the University of Utah I did a lot of work on the classification of clays by mineralogy tests." (Tr. 93) He referred also to other testings of clays that he has been involved in, and he indicated that he has been closely associated with the brick manufacturing industry for 30-odd years.

He stated his company utilizes about 15 different clay deposits for the manufacture of bricks, and that the furthest distance from which his company hauled clay was approximately 200 miles. He estimated that his company might have to test 1,000 samples before finding a clay deposit suitable for its purposes, and that it locates a new satisfactory deposit only about once in every five to ten years. His explanation on direct examination continued:

Q Do you use clays from any of these pits alone in manufacturing a product?

A No.

Q Do you have to mix clays from various pit locations to obtain a desirable end product?

A We do not make one product that is made out of one clay. We blend all of our -- each product that we make has a particular blend of clays in it, for the reasons which each clay gives to that product.

* * *

Q The specific reference to the red pine shale, which I would like to refer to hereafter as Kamas clay; how did you locate that clay?

A A sample was brought into our plant.

Q Did you take this sample through the testing procedure?

A Yes.

* * *

Q Did you arrive at any conclusions with respect to the usability of this particular clay in your operation?

A Yes.

Q Can you tell us what those were?

A It gave us a very dense, hard body, and it exhibited a very wide maturing range.

It gave us a color which we had been seeking for quite a long time. (Tr. 100-105)

Mr. Cahoon defined "maturing range" as "a firing temperature upon which you can burn this material and obtain a satisfactory product, and he gave the following as "important distinctions" between the "Kamas clay" and "clay which might usually be found on the surface of the Salt Lake Valley":

It's those properties which I have reiterated; the extrusionability, which is tied into its plasticity, its ability to be dried, its maturing range, its lack of soluable salts, and the finished firing property of hardness, toughness, that pleasing color, and its strength, all these things were good. (Tr. 106)

He said the Kamas clay was particularly usable in the making of floor tile by his company, and was also usable in making its structural load-bearing brick and cast shingles. (Tr. 106)

The following exchange also took place during direct examination of Mr. Cahoon:

Q Let me ask you: Is there any market for clays which we have previously referred to in this testimony as "valley" clays?

A No.

Q In your opinion, Mr. Cahoon, is there any market for the Kamas clay?

A Yes.

Q Would the Kamas clay demand a higher price on the market than valley clays?

A Yes.

Q Mr. Cahoon, if, in fact, the Kamas clay is deemed to be a locatable mineral, are you prepared to commit money and time and other means to the development of a mine at that location?

A Yes.

Q Is it your opinion that you can extract this clay and use it and obtain a profit from the product?

A Yes.

Q Are the characteristics of this clay essential to a brick operation?

A Yes.

Q Let me ask you this: Are the products which you could make from the Kamas clay such that they would command a higher price in the market than the products made from valley clays?

A Yes.

* * *

Q Where are the products made by Interstate Brick Company sold?

A The floor tile is sold all over the United States, Hawaii and Puerto Rico. The roofing tile is sold in all the Intermountain West, California, and we have an inquiry for a large order even in Florida. The brick is being sold in Utah, Idaho, parts of Wyoming, parts of Colorado, parts of California and parts of Arizona. (Tr. 107-108)

On cross-examination, Mr. Cahoon explained that when he was talking about "valley clay," he intended:

A That would be a surface clay found in practically any valley in the State of Utah.

* * *

Q Is it your testimony, and do I understand you correctly, that the valley clay is simply not useful for any purpose to you?

A To us, no.

* * *

Q You talked about blending. Now, you left me, perhaps, with the impression that this Uintah clay could be used without blending it; am I right in that?

A No.

Q It has to be blended?

A We would blend it.

Q What do you mix when you blend clays?

A Different clays.

Q Do you mix anything in besides clay?

A We have a mix that we add, silica sand. (Tr. 109-110)

Anthony T. Peck testified that he is President of Thomas J. Peck & Sons Trucking and Mining Corporation, which is engaged in the mining and hauling of clays. He is one of the locators of the claims under contest. His direct examination included:

> Q And did an officer or employee of Interstate [Brick Company] enter into negotiations with you for a lease of this clay location?
>
> A Yes.
>
> Q Mr. Peck, are you prepared to move mining machinery on to this location in order to mine and remove this clay if a location is established?
>
> A Yes.
>
> Q Do you have any other parties interested in purchasing this clay from you?
>
> A Yes.
>
> Q Can you mine and remove this clay and sell it at a profit?
>
> A Yes. (Tr. 115)

On cross-examination Mr. Peck said that he was prepared to place mining equipment within the boundaries of Uintah Lode Mining Claim No. 2. He explained:

> A I would like to mine in that particular spot [the existing pit on Uintah Claim No. 2] because there's already been some eight to ten thousand tons removed. It's an ideal spot, and it's already been exposed and opened up, and anybody in the mining business would be crazy not to. There are alternate spots on the opposite side of this hill where you could take out approximately, upwards of a million or two tons and still couldn't be --

Q Where would that be?

A Number one, or number one and number two both. It would be somewhere between the line of number one and number two both.

Q You could take out a million tons in that area, then, with no particular difficulty; is that correct?

A Yes. Without it being visible from the highway.

Q And what arrangements for sale do you contemplate, in terms of tons per year?

A We have a standing offer of 25,000 tons. Not necessarily per year, but that's the amount negotiated on to deliver into the plant.

Q So, then, you would have a fifty year, or more, supply on claims 1 and 2?

A Yes. (Tr. 118-119)

Ivan B. Cutler, Professor of Ceramic Engineering at the University of Utah, with a Doctorate in ceramics, testified that since obtaining this degree in 1951 he has been actively engaged in the field of ceramic engineering. He testified to familiarity with testing of characteristics and properties of clays and to having authored numerous articles in the ceramic engineering field. The following exchange occurred during direct examination:

Q Have you, during the years 1973 and the first part of 1974, performed any tests or made any investigations with respect to the physical properties of various types of clays found in the State of Utah?

A Yes.

Q What was the purpose of your investigation?

A Really, to measure their ceramic properties.

Q Can you describe for us what the investigation consisted of?

A It consisted of locating some clays, some valley clays, for example, crushing and grinding these, if need be, and extruding them into test samples. We then measured the plastic properties, drying shrinkage, firing and firing shrinkage, porosity, and what absorption to see how they would react to ceramic processing procedures. (Tr. 123-124)

Exhibits B and C are large boards containing numerous fired clay samples. As described by Dr. Cutler:

> Exhibit B refers to the section of samples of extruded bars that I and some of my workers at the University processed through a regular firing procedure to measure their properties. You can see that this refers to some of the Kamas clays and mixtures.
>
> This Exhibit C shows some local surface clays that we obtained and likewise processed. (Tr. 124)

Dr. Cutler identified Exhibit D as being a compilation containing ". . . the data for the fired product of these clays that are shown in Exhibits B and C." He stated that Exhibits B, C and D were prepared either by him or under his supervision. By the use of illustrations, the witness expressed the following conclusions:

> The characteristics of local surface clays is that they contain considerable amounts of calcium carbonate, and that gives a very unusual characteristic to the response to high temperatures, as you may well imagine. Calcium, or limestone, decomposes when heated, and this decomposition with the carbon dioxide leaving, means that the material is very

porous. If it were to become very dense, then it would have to shrink a great deal.

As we fire, what we find out, of course, is that the water absorption is very high. You will notice that water absorption here ranges above ten percent, because as soon as you heat these up and decompose that limestone, you leave a lot of room in the material and as soon as you put that in water, the water will absorb into all of the pores that were left from the decomposition of the limestone contained in these local surface clays.

Now, if you heat it high enough, it will begin to shrink, and that shrinkage, then, will lower the water absorption. But the problem with these is that this isn't anything that -- this shrinkage process cannot be controlled. As you can see, it occurs very sharply here. As a matter of fact, we have some samples, and I'll show those a bit later, that show how critical this shrinkage process is.

The thing I want to emphasize to the Court is that we are dealing with materials that have very high water absorption because of the decomposition of this limestone, which is contained as very, very tiny particles in the local surface clays. (Tr. 128-129)

Dr. Cutler continued that the temperature at which these "local surface" clays begin to shrink is about 2000 degrees Fahrenheit and that:

. . . If you go up to 2,100 fahrenheit [sic], then you are in severe danger of losing the material because it will be so soft that it won't be able to withstand the load of one brick being placed on top of another. (Tr. 129)

Dr. Cutler testified that the normal range of firing temperatures in a modern brick plant would be between 1800 and

2300 degrees Fahrenheit, noting again that the clays on Exhibit C began to shrink at about 2000 degrees Fahrenheit which is in about the middle of that range. He added:

> But it's a very disastrous type of shrinkage that occurs, and I can illustrate that here with this exhibit C. It shows each of the same clays. This is the one right here -- this is where you really like to be able to fire, but you will notice that this sample right here, even in our laboratory, we can't hold the temperature constant enough, and it was just a little bit hotter on one side of the sample than the other [pointing to sample No. 5 fired at 2012 Fahrenheit]. (Tr. 130)

He illustrated that some of the higher firing temperatures, such as those above 2100 degrees Fahrenheit as respects the so-called valley or local surface clays can cause some 25 percent shrinkage and added:

> It's just not possible to manufacture products when you are involved with twenty-five percent dimensional change in the product. (Tr. 132)

With reference to certain additional samples of fired valley clays, Dr. Cutler explained:

> These exhibits represent the difficulty in trying to get a hard, dense material from clays 1, 2, and 3, by firing at approximately 2,100 degrees farenheit [sic]. Once again, they have considerable distortion, as you can see from the nature of the exhibits [referring to exhibits E, F and G], plus there's an extra large amount of shrinkage involved in that densification.
>
> Now, because porosity, as indicated from water absorption, is an indication of weakness in the fired material, it is almost a one-to-one corrolation, that if you make the material dense

> you will also have it very strong. Conversely, if it's porous, and if it absorbs a lot of water, it will be weak. (Tr. 134)

Dr. Cutler compared and contrasted the fired characteristics of the "Kamas clay" (i.e., "red pine shale"). He stated that the showings on Exhibit D of "very low linear shrinkage" under different firing temperatures is an "unusual property of this particular clay." (Tr. 139)

He went on to explain further:

> Now, one wonders, then, why do we have the material here that has such a limited amount of shrinkage, and at the same time shows a considerable decrease in the water absorption. Now, that can only take place if something happens to fill in the spaces there without getting any shrinkage involved. One of the likely explanations for this behavior comes from the nature of the mineral itself that's contained in this Kamas clay. Our examination of this Kamas clay indicates that it's prominently an illite or hydrus mica.
>
> . . . That's a unique type of clay mineral. It's unique because it contains within the structure a flux. The cations that go in between the layers of minerals are mostly potassium ions. This, of course, means that we have, right in the clay mineral itself, the necessary ingredients for a good porcelain type of composition. . . . (Tr. 141-142)

He explained that the Kamas clay's porcelain type of composition would permit use in a "low temperature range" of between 1900 to 2000 degrees Fahrenheit. He called this one of this clay's "unusual characteristics," and also stated:

> Another unusual characteristic of this clay is that it contains, according to our analysis, about a quarter of a percent of manganese, in addition to some titanium dioxide and iron oxide. The iron oxide gives this reddish-brown

> type color, but manganese and especially in conjunction with titanium and iron will give that brown color that is characteristic of fired Kamas clay . . . That's an unusual characteristic. You don't find that very often.
>
> Now, how can this characteristic of this material help out in manufacturing other types of ceramic materials? Let me just show here how this material can be mixed with, for instance, Koosharem clay -- (Tr. 143-144)

He explained that a mixture of the Kamas clay, with its characteristic of low firing temperature along with the high firing characteristics of the Koosharem clay, can cause a minimizing of the shrinkage involved in the mixture and at the same time make the mixture of the two materials dense:

> . . . As we mix this Kamas clay with the Koosharem clay, we get a water absorption minimum here at a higher temperature. . . . So, it's obvious, to me, at least, from my experience, that you could make a mixture of these two and utilize the best characteristics of the Kamas clay to reduce the firing temperature of the Koosharem or some other clay. So, this Kamas clay has a nature that it could be used very well with other types of materials in lowering their firing temperature, and probably reducing their shrinkage as well. That's the kind of tests that we have carried out. . . . (Tr. 145-146)

Dr. Cutler said he obtained the Kamas clay samples by going up to the deposit with Thomas Peck, and "sampled across the deposit in two different locations, along the vein that had been opened up . . . in the pit which has previously been referred to in this proceeding." With regard to whether the "red pine shale" (also referred to by contestees as "Kamas clay") is in fact "a clay within the accepted definition of that word," Dr. Cutler stated:

> Well, there are several criteria for whether material is a clay, and according to the geological definition, only part of the Kamas clay would be a clay because only part of it would fall within the minus five micron range. My guess would be, from looking at the scanning electron microscope pictures of the material and working with it, that something on the order of maybe twenty to thirty percent of it would be in this minus five micron range.
>
> If you talk about it from the point of view of its crystal or mineralogical character, you are driven to the point that it's a hydrus mica or an illite type of clay mineral, so it really depends on how you make that definition. (Tr. 146-147)

He noted that a hydrus mica or illite type material is commonly referred to as a "clay."

Again referring to his comparisons of various "valley clays" with the so-called Kamas clay obtained from the mining claims, he was asked:

> . . . From this comparison have you been able to form any opinion with respect to whether the Kamas clay has any characteristics which are exceptional? (Tr. 147)

Stating that he had, he said:

> Well, in my opinion, the Kamas clay is very desireable [sic] because of its characteristic of showing very little fired change, and at the same time, developing considerable mollite at the firing temperature and becoming very dense, non-porous. I would expect, from the relationship between porosity and strength, that its strength would also be very high. (Tr. 147)

Dr. Cutler stated that of several criteria utilized in classifying clays, in his opinion the ultimate use of the clay is one of the proper criteria. He gave his opinion that the Kamas clay exhibited qualities pertaining to strength, plasticity, and shrinkage which would make it particularly adaptable to the face brick industry, as distinguished from the "common brick" industry. (Tr. 149) He advised that so far as he knows, there are no bricks manufactured in Utah by the "common brick method." (Tr. 150) Further direct examination included the following:

> Q Are there any other purposes for which this clay might be used, other than face brick?
>
> A Well, it follows, at least from the German literature, that it would be a very good candidate for stoneware.
>
> Q Have you attempted to make any stoneware with this clay?
>
> A Yes. We have an exhibit here. (Tr. 151-152)

Explaining two samples of stoneware which he exhibited (Exs. H and I), Dr. Cutler stated that a mixture of about 75 percent Kamas clay and 25 percent "ball clay" gives more plasticity and can be utilized to make stoneware pots. He concluded ". . . Through these pots we show that they had the kind of plasticity and the kind of characteristics that would make a good stoneware clay." (Tr. 154) He said the water absorption of the product was very low, describing it as being about "one-half percent." (Tr. 154) He also said that "the material forms a very dense and nonporous type of structure, and I can conclude that it would make a good stoneware clay." (Tr. 154)

Dr. Cutler reiterated that in his opinion the Kamas clay has several properties that make it "unique." (Tr. 159) And he elaborated that he believed the unique properties of the Kamas clay would make it "desirable from the point of view of manufacturing some products." Enumerating the "products" he said:

> Well, the properties of forming mollite at low temperatures gives you an opportunity of making a very hard and dense

> material that has already found a great deal of use in floor tile. It could also make it very usable for stoneware, and, of course, it could be used in face brick as well. (Tr. 160)

He said that in making such products as floor tiles, face brick and stoneware, mixtures with other clays would be desirable and that mixtures are the general rule in the making of clay products. He observed that there are numerous kinds of clay deposits and that generally speaking, any particular deposit or deposits would contain properties different or unusual from other given clay deposits.

Evaluation and Findings

Prior to discussing the charges of the complaint, it seems appropriate to consider a matter not included in any of the charges, but raised for the first time by contestant at the hearing prior to the taking of evidence. This is whether on the basis of the record now before me I may properly consider the propriety of the claims having been located as lodes rather than as placers. In my opinion I may not and, accordingly, do not. I shall explain my reason.

Discussions at the hearing between counsel indicated the same land, or some of the same land, covered by the contested lode claims may also be covered by placer claims held by contestees, but counsel for contestees declined to stipulate in this regard or to stipulate that any such placer claims may be considered as a part of this proceeding or that the issue of the propriety of location as lodes be considered. Contestant presented no satisfactory explanation for its failure to duly charge the asserted improper mode of location nor for its failure to include any such placer claims as a part of the proceeding. Contestees "reserve[d] any rights we may have under the placer location laws, as opposed to the lode laws." (Tr. 8)

When contestant raised this matter at the hearing assertion was made that United States v. Stevens, 77 I.D. 97 (1970), implicitly requires consideration of the question, although not charged in the complaint or by due amendment thereto, where it is reasonably raised by the evidence. Contestant

did introduce some evidence indicating the materials on the claims to be of a placer nature. Presumably the portion of the Stevens case relied on by contestant for its argument in this regard is the following paragraph appearing at page 103:

> There is an additional reason, which was overlooked in the decisions below, for concluding that all of these claims, including the Slab Sugar Granite (No. 1) are invalid if they contain no other minerals than building stone. All of these claims were located as lode claims. However, building stone is subject to the act of August 4, 1892, 30 U.S.C. sec. 161 (1964), authorizing the location of mining claims for lands chiefly valuable for building stone "under the provisions of the law in relation to placer-mineral claims." Since the claims were not located as placer claims for the building stone, the deposits of building stone within the lode claims could not validate the claims.

This foregoing statement is not apropos to the case at hand. Stevens dealt with building stone claims required to be located as placers as a matter of express statutory law, a situation not present in this case.

Rather, the following language, as found in United States v. McClarty, 81 I.D. 472, 485 (1974), is applicable:

> 43 CFR 4.450-4(a)(4) requires that the complaint contain a statement in clear and concise language of the facts constituting the grounds of the contest. It must give notice to the adverse party of the claims that are to be adjudicated so that he may prepare his case. United States v. Harold Ladd Pierce, 3 IBLA 29 (1971); Douds v. International Longshoremen's Ass'n., 341 F.2d 278, 283 (2d Cir. 1957). . . . A ground not alleged in a contest complaint cannot be used to find a claim invalid, unless it has been raised at the hearing and the contestee has not

> objected. United States v. Northwest Mine and Milling, Inc., 11 IBLA 271 (1973); United States v. Harold Ladd Pierce, supra. . . . 3/

Having disposed of the matter not charged in the complaint, I now set forth law applicable to the charges and a discussion thereof and findings based thereon.

Where the Government contests mining claims alleging lack of valid discovery, it has the burden of going forward with sufficient evidence to make a prima facie case of lack of discovery. If and when that is accomplished, the affirmative burden of disproving the Government's case by a preponderance

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3/ I observe that United States v. Guzman, 18 IBLA 109, 131 (December 5, 1974) points out that a showing of compliance with the provisions of 30 U.S.C. § 38 (1970) could serve to ". . . regularize the possession of placer deposits by claimants who had entered, located, held and worked such deposits under the law relating to lode claims . . . ." 30 U.S.C. § 38 provides in pertinent part:

> Where such person or association, they and their grantors, have held and worked their claims for a period equal to the time prescribed by the statute of limitations for mining claims of the State or Territory where the same may be situated, evidence of such possession and working of the claims for such period shall be sufficient to establish a right to a patent thereto under this chapter and sections 71 to 76 of this title, in the absence of any adverse claim; . . .

Contestees did not show compliance with the quoted statute. Of course, for reasons I have set forth, there existed no reason for them to do so, they not having been put on due notice of the later asserted deficiency in mode of location; thus there was no basis for them to have anticipated that they should show adherence to the statute or else that the claims were properly located as lodes.

of the evidence devolves upon the claimant, here the contestees. Thus, the ultimate burden of proving discovery is the burden of contestees. Foster v. Seaton, 271 F.2d 836 (D.C. Cir. 1959); United States v. Taylor, 19 IBLA 9, 22-23 (1975). And a showing must also be made that a discovery has been made on each claim in order for that certain claim to be valid. United States v. Foresyth, 15 IBLA 43, 58 (1974).

A discovery exists where:

> . . . minerals have been found and the evidence is of such a character that a person of ordinary prudence would be justified in the further expenditure of his labor and means, with the reasonable prospect of success in developing a valuable mine . . . . Castle v. Womble, 19 L.D. 455, 457 (1894), approved in Chrisman v. Miller, 197 U.S. 313, 322 (1905).

This "prudent-man" test is approved in Coleman v. United States, 390 U.S. 599 (1968), and refined with the requirement that a showing must be made that the mineral can be extracted, removed and marketed at a profit. The marketability refinement of the prudent man test of discovery thus requires that the mineral locator must show that by reason of accessibility, bona fides in development, proximity to market, existence of present demand, and other factors, the mineral deposit is of such value that it can be mined, removed and disposed of at a profit. See Foster v. Seaton, supra at 838, and Coleman v. United States, supra at 603.

The claims in issue were all located in 1970, thus subsequent to the Surface Resources Act of July 23, 1955, section 3 of which, 30 U.S.C. § 611 (1970), declared that common varieties of certain minerals are not valuable mineral deposits under the mining laws (30 U.S.C. § 22 et seq. (1970)); Coleman v. United States, 390 U.S. 599 (1968). Specifically:

> No deposit of common varieties of sand, stone, gravel, pumice, pumicite, or cinders . . . shall be deemed a valuable mineral deposit within the meaning of the mining laws of the United States so as to give effective validity to any

> mining claim hereafter located under such mining laws . . . . "Common varieties" . . . does not include deposits of such materials which are valuable because the deposit has some property giving it distinct and special value . . . .

Significant factors in consideration of the cited act to determine whether or not minerals are an uncommon variety are: Whether the deposit has a unique property, whether the unique property gives the deposit a distinct and special value (United States v. U. S. Minerals Development Corp., 75 I.D. 127 (1968)); and whether ". . . the distinct and special value . . . [is] reflected by the higher price which the material commands in the market place." (McClarty v. Secretary of the Interior, 408 F.2d 907, 908 (1969).)

Even prior to the said Act of July 23, 1955, it was the long established rule that common clay is not subject to disposition under the mining laws even though a market may exist for the clay. Thus, in Holman v. State of Utah, 41 L.D. 314 (1912), it was stated:

> It is not the understanding of the Department that Congress has intended that land shall be withdrawn or reserved from general disposition, or that title thereto may be acquired under the mining laws, merely because of the occurrence of clay or limestone in such land, even though some use may be made commercially of such materials. There are vast deposits of each of these materials underlying great portions of the arable land of this country. It might pay to use any particular portion of these deposits on account of a temporary local demand for lime or for brick. * * * * It is not intended hereby to rule that there may not be deposits of clay and limestone of such exceptional nature as to warrant entry of the lands containing such deposits under the mining laws.

One of the principal decisions involving the question of locatability of clay deposits under the mining laws (and a case cited by each of the parties as being a decision in

support of its respective position) is United States v. Mattey, 67 I.D. 63 (1960) 4/ wherein it was held that to satisfy the requirements for a discovery of a mining claim located for a deposit of clay, it must be shown that the clay is not only marketable at a profit but that it is not a common clay suitable only for the manufacture of brick, tile, pottery and similar products.

The Mattey decision recognizes that lands containing deposits of clay of "an exceptional nature" may be entered under the mining laws. The decision then goes on at pp. 67-68 to hold that in the facts of the case there being considered:

> The only unusual qualities attributed to the deposit are that it contains certain "impurities" and is used in the manufacture of vitrified sewer pipe. The impurities, or flux materials, however, are merely the ordinary substances found in common clay. Indeed, it is their presence in appreciable amounts which differentiates the common clays from the less common clays . . . . There is nothing in the record to indicate that the Mattey shale contains flux materials in unusual combinations or that it is different in composition from any other common clay. The only comparison made was between the shale and common dirt as a bulk material for the clay mixture used in manufacturing the sewer pipe. The fact that there the advantages are in favor of using shale over common earth is hardly sufficient to warrant classifying the shale as uncommon.
>
> . . . the use to which a common clay is put cannot make the lands in which it is found subject to location under the mining laws, if the use is not dependent upon any unusual characteristics of the clay itself. It would be different if a clay with unusual characteristics which could be

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4/ See also United States v. Nogueira et al., 403 F.2d 816 (9th Cir., 1968), involving the same claim as that in the Mattey case.

> used in the manufacture of ordinary brick were used to make a product for which its unusual characteristics were essential. In this case the Mattey shale has no qualities that it does not share with other common clays and it is used only as any other common clay could be used.

Mattey held that the clay it involved was not a mineral subject to location under the general mining law and therefore found it unnecessary to consider the act of July 23, 1955, supra. 5/ The decision refers, with approval, to Department of the Interior comment on the bill which became the Materials Act of July 31, 1947, 30 U.S.C. § 601 et seq. (1970), which authorizes the Department to sell certain materials on public lands. Said comment is quoted in part at pp. 65-66 of the decision, and the part applicable to the present case is as follows:

> There are on the public lands many materials and resources which can be used profitably for the benefit of local industries and communities and to the disposition of which there is no real objection. . . .
>
> Included in the materials to which it is contemplated the proposed bill would apply are:
>
> * * *
>
> 5. Clay to be used for the manufacture of bricks, tile, pottery, and similar products. (S. Rept. No. 204, 80th Cong., 1st Sess.)

A prima facie case was established by the Government through the testimony of its mineral examiners who had examined the

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5/ In accord, the more recent decision of United States v. O'Callaghan, 8 IBLA 324, 328 (1972) states: "The status of common clay was not changed by the Act of July 23, 1955"; and, "ordinary clay" is not locatable (citing Holman v. Utah, supra).

claims. Their testimony has the effect of showing no discovery of valuable minerals under the mining laws; specifically, that the material in dispute is not of a quality which can be marketed profitably for commercial purposes for which common clay cannot be sold. Although their testimony indicates all the samples which are tested, and to which they testified, were taken from the pit which Exhibit 2 shows to be on Uintah Lode Mining Claim No. 2, the evidence does not disclose any working existed on any of the other nine claims. A Government mineral examiner is not required to do the discovery work upon a claim. United States v. Coston, A-30835 (February 23, 1968). It is only necessary that he examine the exposed areas of the claim and the workings on a claim to verify if a discovery has been made by a mining claimant. United States v. McGuire, 4 IBLA 407 (1972). Moreover, contestees' evidence indicates their samples which represented materials from any of the contested claims were from this same pit.

Thus, the burden of proving the nature and value of the material on the claims comes to rest upon contestees.

Dr. Cutler's categorization of the "Kamas clay" as being that it's an "illite or hydrus mica" (Tr. 141, 147) itself indicates the material called "Kamas clay" would fit within the "common" category in the definition of "clay mineral" in A Dictionary of Mining, Mineral, and Related Terms (U. S. Bureau of Mines, 1968 Ed., at 215) 6/ viz.:

> . . . The most common clay minerals belong to the Kaolinite,montmorillonite, attapulgite, and illite (or hydromica) groups. . . .

Evidence presented by contestees' witnesses distinguishing the "Kamas clay" from the so-called "valley clays" (i.e.,

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6/ I take official notice of this U. S. Bureau of Mines publication albeit no reference was made thereto by either counsel. Cf., United States v. O'Callaghan, supra, footnote 5, at p. 26.

That it is appropriate to utilize evidence presented by contestees in support of the contest charges, see United States v. Foster, 65 I.D. 1, 11 (1958), aff'd Foster v. Seaton, supra; United States v. Taylor, supra, at 23-24.

"surface clay[s] found in practically any valley in the State of Utah," Tr. 109; see also Tr. 105, 124, 128) is not sufficient to remove the "Kamas clay" from the "common clay" category as defined in the Mattey decision, supra. See also United States v. Bienick, 14 IBLA 290 (1974) (esp. concurring opinion at 297); and United States v. O'Callaghan, supra (footnote 5). This only indicates the "Kamas clay" to be of less widespread occurrence than some other material ("valley clays") which admittedly have no market. (Tr. 107)

By and large, the evidence suggests the "Kamas clay" to be usable "for the manufacture of bricks, tile, pottery, and similar products," and within the context of Mattey such usability does not render it locatable.

I do observe that reference is made to its being usable for the making of stoneware (Tr. 106, 143, 151-154, Exs. H and I), porcelain (Tr. 141-142), other types of ceramic materials (Tr. 123-124, 143-146, Exs. B and D), floor tile (Tr. 106, 160), structural load-bearing brick (Tr. 106), cast shingles (Tr. 106), and face brick (Tr. 149, 160). It would serve no real purpose and would seem academic to discuss in this decision whether usability of the material in question for the listed purposes or any of them, was adequately shown, or whether such purposes, or any of them, would suffice to render the deposit uncommon. This, because the record is devoid of evidence showing the "Kamas clay" could be marketed profitably for any such purposes.

United States v. Gunn, 79 I.D. 588, 593-594 (1972) contains the following applicable language:

> . . . Although the decisions below found that the deposit was a common clay, they did not rule that the clay was no longer locatable under the mining laws because of section 3 of that Act [of July 23, 1955] which provided that a deposit of common varieties of sand, stone, gravel, pumice, pumicite, or cinders, shall not be deemed a valuable mineral deposit within the meaning of the mining laws so as to give validity to any claim located after the Act. Rather, they relied on the ruling [in United States v. Mattey, supra] . . . that common clays have never been locatable under the mining laws, instead only a deposit of clay of an exceptional nature which can be marketed for

uses for which ordinary clays cannot be used may be located. Common varieties of clay are included in the category of material disposable by the United States under the Materials Act of July 31, 1947, 30 U.S.C. § 601 (1970). Appellant [mining claimant] seems to be confusing common varieties under section 3 of the Surface Resources Act with the ruling reached below which found the deposit to be a common clay. Although many of the criteria in determining what constitutes a common variety under section 3 of the Act of July 23, 1955, as set forth in regulation 43 CFR 3711.1(b), are also applicable in determining whether a clay is locatable generally, the basis for the determination should not be confused.

Appellants cite definitions and discussions of bentonite [Gunn involved the alleged discovery of a bentonitic clay] generally in various texts to support their contention that it is a special clay because it has been classified as such. The fact that bentonite clay has been given a special name, as appellants contend, is not determinative. The evidence in this case did not cover all types of bentonite, but was limited to the clay found on these claims. There is no factual basis in this case to make any general ruling concerning the locatability of all types of bentonitic clays. Our inquiry is limited to the clay deposit within these claims.

* * *

[A witness testified that the clay "might be competitive because of lower freight rates" than for other clay and that "there might be more prospective purchasers of the material."] Most of his testimony, however, is actually more in the nature of advice for future work to be done on the claims and for investigating market possibilities. There is insufficient evidence that there is clay of a quality that can be

> marketed profitably for commercial purposes for which common clays cannot be sold. . . . Other than the discussion concerning freight costs, there is no evidence concerning the economic realities of a mining operation within the claims, such as evidence concerning possible prices for which the clay could be sold and possible costs of a mining operation. Without an adequate showing that the clay is of a quality and quantity which can be marketed profitably for commercial purposes for which common clay cannot be sold, the claim is not a valid claim based on the clay alone. . . .

Contestees clearly established the existence of a sufficient quantity of the material (to meet that aspect of the first charge of the complaint). (E.g. Tr. 46, 118-119.) But even assuming arguendo, that contestees had shown the "Kamas clay to be a locatable mineral, they failed to show it could be marketed at a profit. Contestees' witness Peck stated "there's already been some eight to ten thousand tons removed" from the pit on Uintah Lode Mining Claim No. 2 (Tr. 118), but it was never established that amount, or any amount, was sold at a profit. And his testimony that "We have a standing offer of 25,000 tons" (Tr. 119; quoted in context at p. 12 hereof) is unsupported by anything showing profitability.

Contestant's witness testified to a calculation of $ 3.35 per ton to load and deliver the materials to West Jordan, Utah, or Salt Lake City, Utah (see footnote 2, supra) which was the closest possible market indicated by the evidence. Contestees showed neither that this calculation was in error, or that the price paid for the delivered material would exceed this amount.

Any evidence pertaining to profit is unsupported as respects "the economic realities of a mining operation within the claims [or any of them], such as evidence concerning possible prices for which the clay could be sold and possible costs of a mining operation." (Excerpt from quotation from United States v. Gunn, supra.) Contestees' evidence in this regard is in reality an expression of hope rather than anything supported by facts. (See especially Tr. 107-108, 115 and 118-119, as quoted hereinbefore at pp. 9-12)

I therefore conclude that the deposits on the claims have not been shown to possess characteristics giving unusual value

distinguishing them from common clays, so that they can be marketed profitably for commercial purposes for which common clay cannot be sold. Accordingly, pursuant to the prayer of the complaint, the above-captioned mining claims are declared null and void.

Harvey C. Sweitzer

Administrative Law Judge

APPEAL INFORMATION

The contestees have the right of appeal from this decision to the Board of Land Appeals. The appeal must be in strict compliance with the regulations in Title 43, Part 4. (See enclosed information pertaining to appeals procedures.)

If an appeal is taken by the contestees, the adverse party to be notified is:

Office of the General Counsel
U.S. Department of Agriculture
Forest Service Building
Ogden, Utah 84401

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