BEFORE THE INDIAN CLAIMS COMMISSION

CITIZEN BAND OF POTAWATOMI INDIANS OF OKLAHOMA and POTAWATOMI NATION REPRESENTED BY CITIZEN BAND OF POTAWATOMI INDIANS OF OKLAHOMA, ET AL.,	)	Docket No. 217
THE PRAIRIE BAND OF THE POTAWATOMIE TRIBE OF INDIANS, ET AL.,	)	Docket No. 15-K
HANNAHVILLE INDIAN COMMUNITY, ET AL.,	)	Docket No. 29-J
Plaintiffs,	)	
v.	)	
THE UNITED STATES OF AMERICA,	)	
Defendant.	)	

Decided: April 25, 1973

Appearances:

Robert S. Johnson and Louis L. Rochmes, Attorneys for Plaintiffs in Dockets 217 and 15-K. Giddings Howd was on the brief.

Robert C. Bell, Attorney for Plaintiff in Docket 29-J.

David M. Marshall, with whom was Mr. Assistant Attorney General Shiro Kashiwa, Attorneys for Defendant.

OPINION OF THE COMMISSION

Pierce, Commissioner, delivered the opinion of the Commission.

This case is before the Commission upon remand from the Court of Claims. Since the Commission in a prior decision erroneously excluded the value of lead deposits underlying the lands in question, it is now necessary that the previous valuation determination be supplemented to include the enhancement in value resulting from mineral deposits.

The pertinent history of this case is as follows:

In all three claims the respective plaintiffs are seeking additional compensation for lands which the United States ceded to their ancestors under the Treaty of August 24, 1816 (7 Stat. 146), and which were receded by them to the United States under a later Treaty of July 29, 1829 (7 Stat. 320). The 1829 cession included two tracts, which have been identified by Charles C. Royce in his Indian Land Cessions, published in the 18th Annual Report of the Bureau of American Ethnology, 1896-97, as Area 147 on maps Wisconsin 1 and Illinois 2, and as Area 148 on Illinois 2.

The United States, by the Treaty of August 24, 1816, supra, with the United Tribes of the Ottawas, Chippewas, and Potawatomies, recognized title in Indians to the lands described in Article 2, provided however that the President might reserve certain tracts which in aggregate would not exceed "the quantity that would be contained in five leagues square" (144,000 acres). The "five leagues square" were reserved for the purpose of allowing the President to select, and thus retain for the United States, the areas which contained valuable lead mines. The Commission on November 29, 1962,

11 Ind. Cl. Comm. 693, found that while the United States had not fully exercised its selection rights prior to the 1829 cession, it nevertheless had not lost those selection rights. Rather, the Commission held the President had a right to pick and choose mineral lands, whenever and wherever located, so as to have the reserved 144,000 acres include all lead lands in Area 147. Accordingly, the Commission found that the 1829 cession of Area 147 did not include any of the known lead deposits, which were in scattered locations totalling about 18,000 acres.

The Court of Claims held that the Commission had erred in its interpretation of Article 2 of the 1816 Treaty, supra, and therefore had erroneously failed to consider evidence showing how the lead deposits would have influenced, at least to some extent, the total fair market value of Areas 147 and 148.[1/] While holding that the Commission was correct in finding that the reservation of a maximum of 144,000 acres out of the area ceded to the United Nation in 1816 did not have to be exercised in order to be valid, the court held that only those areas within Area 147 which had actually been selected by the United States as of the 1829 cession should be deducted from the valuation. Therefore, to the extent not withheld from them by the 1816 reservation, the Indians are entitled to have considered in fixing the award in this case the enhancement in value resulting from the mineral deposits. The Court of Claims in remanding this case set forth the formula by which the fair market value of Area 147 was to

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1/ Citizen Band of Potawatomi Indians v. United States, 179 Ct. Cl. 473, 391 F.2d 614 (1967), cert. denied, 389 U.S. 1046, 390 U.S. 957 (1968).

be allocated so as to give effect to the 144,000 acre reservation as well as the actual selections which the United States had made.

In its 1962 and 1965 decisions the Commission entered certain findings which were based on the erroneous interpretation of the 1816 reservations. Specifically findings 45, 75 and 80 (11 Ind. Cl. Comm. at 670, 687, 690) and finding 86 (15 Ind. Cl. Comm. at 235, 236) are in error, and they are vacated. Other findings of the Commission may reflect, to a limited degree, some of the erroneous matters now being vacated. To the extent that any such findings do not conform to or are inconsistent with the decision which the Commission is now entering, such previous findings should be deemed modified or supplemented by the findings which are entered on this date.

We turn now to our consideration of the enhancement in value resulting from mineral deposits, specifically lead, underlying the lands in question. Area 147 is located in southwestern Wisconsin and northwestern Illinois and contains 1,525,746 acres. All of the lead deposits involved in this case were located in this tract. Area 148, which did not contain any minerals, is located in northern Illinois and contains 2,162,523 acres. A total of 890,000 acres within Area 147 was located within the Upper Mississippi Valley Lead District, and about two-thirds of all the lead produced in that district in 1829 came from the Area 147 portion.

The presence of lead within Area 147 was known as early as 1680 when Father Louis Hennepin visited the area and was shown lead mines

by the Indians. Exploitation of the lead deposits commenced about 1823, and in 1824 about 88 tons of lead were produced in the Upper Mississippi Valley Lead District. In 1829 this had grown to about 6,700 tons, which represented three-fourths of the entire domestic production of lead in the United States. In 1829 there were about 2,900 miners in Area 147.

The nature of the lead deposits in Area 147 was quite well understood in 1829, being similar to that of certain mining districts long known in Europe. The lead ores were scattered throughout the area, and the surface indications of ores were many and rather obvious. By 1829 most of the important lead deposits in the area had been discovered.

Mining in the 1820's was generally from open pits and was accomplished with relatively simple methods. The Government required that all ore be sold to licensed smelters. After smelting, the lead was shipped to the Mississippi River, which bordered Area 147 on the west. From there it was sent by small steamboats to such markets as St. Louis and New Orleans. The principal use for lead at that time was in the manufacture of bullets.

Lead prices prior to 1830 fluctuated widely. In 1824, after the United States doubled the tariff on importation of lead in pig bars and lead shot, the New York prices rose to 7.59 cents per pound. Production in the Upper Mississippi Valley Lead District mounted rapidly, and by 1829 it was up to 6,672 tons. The comparatively limited

uses for lead could not absorb this increased production, and the domestic lead market became glutted. The price of lead in 1829 dropped to its lowest point at 3.75 cents per pound in New York, and the price remained at that figure during 1830. Production of lead from the Upper Mississippi Valley Lead District dropped substantially in 1830 and did not reach the 1829 level until 1833. Lead production from 1823 through 1829 was 15,882.81 tons, representing the increase from 167.56 tons in 1823 to 6,671.97 tons in 1829.

A number of well-qualified experts have prepared reports and testified before the Commission on behalf of the parties. We have found all of the reports to have been carefully prepared, and they have been of great assistance to the Commission. We have relied on the experts and have reached our ultimate value conclusions from the materials presented by them.

In our finding 96 we set forth the details of the mineral appraisal which was prepared by Charles H. Behre, Jr., and Roland D. Parks for the plaintiffs in Dockets 217 and 15-K. Their appraisal was based on a projected twenty-year production of lead in Area 147. Messrs. Behre and Parks calculated that a prospective purchaser on December 30, 1829, would have anticipated a net profit of $44.08 per ton (2.2 cents per pound) of lead mined. They projected production figures which showed a yearly increase for each of the twenty years involved. Applying the profit figure to those production estimates, they arrived at a net profit for each of the 20 years from 1830 through 1849.

In considering a proper discount to relate the future earnings to a December 30, 1829, value, they took into account the risks of the investment and the necessity of recovering the capital investment by the time the lead deposits would be exhausted. They considered the formula devised by H. D. Hoskold to be a proper means for calculating the present value of future income from a mining venture. The Hoskold formula involves an annuity type calculation whereby the return on the investment and all of the hazards of the operation are reflected in a single percentage factor. The Hoskold formula presupposes uniform earnings and uniform return on capital and provides for redemption of capital at the expiration of the annuity life by annual reinvestment of the balance of the yearly earnings at a safe return of interest. Messrs. Behre and Parks considered that a Hoskold rate of 10 percent on the investment and 4 percent on the sinking fund accumulations would have been appropriate. However, since they had not projected uniform annual production, it was not possible to use the Hoskold formula. Accordingly, they utilized a single compound interest rate of 12 percent, which is approximately equal to the Hoskold double rates of 10 percent and 4 percent. Their calculations resulted in a figure of $2,623,312.00 as the estimated fair market value of the lead deposits in Area 147.

In our opinion the projected production figures which Messrs. Behre and Parks utilized were more optimistic than was warranted by the known

facts in 1829. Their estimate for the ensuing 20-year period exceeded the actual production during that period by some 20,000 tons. The estimated net profit figure of $44.08 per ton was also on the generous side.

We consider that the Hoskold rate of 10 percent representing the return on the investment and the hazards of the operation was unrealistically low, particularly in view of the liberal production and net profit assumptions.

In R. Parks, Examination and Valuation of Mineral Property (1949) (see Def. Ex. 312), the following discussion appears at pages 222, 223:

> Hoskold used the interest rate to express all the hazards of an enterprise. That he realized the difficulty in determining the proper rate to express the risk is shown by the following quotation from his Engineers' Valuing Assistant (1877).
>
> Every purchaser of mining property should have ample allowance made upon his purchase, but the amount of such an allowance, as a percentage, must depend upon a point difficult to calculate --
>
> In the case of unopened mines it has been my practice in deducing the present value deferred, to allow 20 per cent. to a present purchaser, and redeem capital at 3 per cent. per annum; which I consider in a general way is a safe mode of dealing with any mine with average prospects; although in special cases, where a mine has a more certain character, I have allowed a percentage as low as 14, and in some of less certainty, as high as 25.
>
> A rule cannot be laid down expressing the attendant risk of mining adventure, as nearly all mines exist under circumstances differing widely from each other. It is a matter of experiment; each mine must, therefore, stand upon its own merits, and the amount of percentage to be allowed must also be varied according to the circumstances of each particular case.

Again in 1902 Hoskold says:

> In England, where the valuation of mines has long been practiced, it has been customary to allow the purchaser of mining property a high annual rate of interest. Upon collieries, for instance, the rate is from 14 to 20 per cent. per annum; and upon metalliferous mines still higher because the risk is greater. For foreign mines, the details of management, economy and profit are further removed from control, and consequently as the risk is proportionately increased, the purchaser should reckon upon the allowance of a far higher rate, depending upon class and character of the mine, and probably from 25 to 35 per cent.

In our opinion a Hoskold percentage rate of 12 to 15 percent would be a more appropriate factor to be applied in this case. The use of a correspondingly higher single compound interest rate would have resulted in a substantially lower lead valuation than the $2,623,312.00 calculation of Messrs. Behre and Parks.

Dr. Raleigh Barlowe, another mineral appraiser for the plaintiffs in Docket 15-K and 217, relied on three different methods of valuation. His projection approach was an adoption of the Behre-Parks appraisal which we have already discussed. The second approach was a variation of the Behre-Parks appraisal in which Dr. Barlowe utilized an average annual production of 8,192 tons. He calculated that the net profit on production would have been 1.55 cents per pound. This resulted in a total profit of $254,513.00 which he projected for a 25-year production life. Dr. Barlowe used the Hoskold formula adopting a capitalization rate of 7 percent and a 4 percent reinvestment or sinking fund rate.

These factors produced a valuation figure of $2,708,019.00. Dr. Barlowe also presented calculations assuming other net profit estimates and other Hoskold capitalization rates. The resulting values ranged from $2,802,394.00 (for a higher net profit and the Hoskold 7% - 4% rates) to a low of $2,051,374.00 (for the actual 1825-1849 production at the Hoskold rates of 10% and 4%).

In our opinion, Dr. Barlowe's use of a 7 percent rate in the Hoskold formula was too low. A 7 percent rate was scarcely above the prevailing investment interest rate and cannot be considered as reflecting the return which an investor would require from a mining operation. Dr. Barlowe cited Herbert Hoover as authority for the proposition that a mining investment should assume a capitalization rate of 7 percent and a 4 percent reinvestment or sinking fund interest rate. In discussing Hoover's use of this rate, Roland D. Parks commented as follows:

> Hoover uses rates of 7% and 8% on investment in his examples illustrating the use of the tables . . . These specific cases may be taken as evidence that Hoover . . . did not include the hazards of the individual properties in the interest rate but that, instead, [he] used the remunerative or speculative rate of interest, and either consciously or unconsciously used a discount for hazard, or factor of safety, in determining the other factors entering into the valuation. [R. Parks, Examination and Valuation of Mineral Property (1949) (Def. Ex. 312, p. 224.]

Since Dr. Barlowe did not apply any separate discount for the hazards of the operation, we believe that a higher Hoskold rate would have been more appropriate.

In fact Dr. Barlowe did present calculations based on higher Hoskold rates. Using a rate of 10 percent on the capitalization and 4 percent on the sinking fund accumulations he arrived at a valuation of $2,051,375.00 (based on the actual 25 year production from 1825 through 1849). We believe that this computation was more realistic as reflecting the view which a prospective purchaser would have had on December 30, 1829.

Dr. Barlowe's third value approach involved computations of the royalties that could have been secured by leasing the lead lands to private operators. Dr. Barlowe's calculations were based on the total value of lead produced during the period from 20 to 25 years after the valuation date. He applied royalty rates of from 20 to 33 1/3 percent to arrive at lead values ranging from $2,663,805 to $5,867,947. Since the royalty computations were based on production figures after the valuation date, this method is not a proper means of calculating fair market value. Furthermore, Dr. Barlowe's figures are based upon a percentage calculation of the total gross production for the 20-to-25-year period involved without any discount to relate the royalty payments to a December 30, 1829, valuation date. We have also noted that any application of a royalty rate as high as 33 1/3 percent of the gross production would be unreasonable in the light of Dr. Barlowe's own estimates of the costs of production. Since Dr. Barlowe concluded that production costs would have represented two-thirds of the gross price received for all lead produced, an allowance of an additional

one-third of the gross production for royalty payments would have accounted for the entire proceeds of the operation, leaving the prospective purchaser with no profit at all. For these reasons we have not considered the royalty approaches in making our valuation determinations in this case.

The plaintiffs in Docket 29-J presented a mineral evaluation by Harris A. Palmer and Marius P. Gronbeck. They based their appraisal on a projection of the profits which would have been anticipated by a hypothetical buyer of the minerals in Area 147. They used a 30-year working life for the mining operation, and, with the known 1828 production of 3,876 tons, they projected a 5 percent production increase for each of the next 30 years. They calculated that the net profit on lead produced would have been $40.52 per ton (2.02 cents per pound). They then computed the 1829 value of the anticipated profits by applying a 12 percent discount rate. This rate is approximately equal to the Hoskold formula's 11 percent on investment capital and 5 percent on the sinking fund accumulation. The resulting value was $2,016,878.00 which represented Messrs. Palmer and Gronbeck's opinion of the 1829 value for the lead content of Area 147.

The Commission believes that a 30-year working life is too long a projection. While the 12 percent capitalization rate might be considered low, we have noted that Messrs. Palmer and Gronbeck applied a separate discount for the hazards of the mining operation. Specifically, they discounted their projected growth rate by 50 percent to allow for

unfavorable factors which might occur in a mining operation. They also applied a more reasonable net profit figure of 2.02 cents per pound. In such circumstances we view the 12 percent capitalization rate as more justified than in the case of the Behre-Parks appraisal. The Commission is in substantial agreement with the resulting appraisal which Messrs. Palmer and Gronbeck have placed on the minerals in Area 147.

The defendant's mineral appraisal was prepared by Professor Fred D. Wright. He also based his appraisal on a projection of the estimated profits to be realized from a mining operation in Area 147. He projected the operation on a 20-year basis, estimating the average annual production for that period at 6,000 pounds. He estimated that the net profit for those deposits which had already been discovered on December 30, 1829, was 1.968 cents per pound. However, Professor Wright concluded that only 30 percent of the lead deposits had already been discovered in 1829 and that additional costs would have to be considered for the remaining production which would have to come from deposits to be discovered. These additional costs reduced the net profit to 0.551 cents per pound on the remaining 70 percent of the anticipated production from Area 147. Applying the Hoskold formula using a 15 percent return on investment with a redemption of capital at 5 percent resulted in a figure of $649,861.00 as the December 30, 1829, fair market value of the lead deposits in Area 147.

Professor Wright's figure is substantially lower than that arrived at by the other experts using a projected income approach because he used a substantially lower net profit on 70 percent of his projected production. We believe that the discovery costs which he attributed to 70 percent of the gross production were unrealistic and not supported by the evidence. We also consider that a projected annual production of only 6,000 tons is too low. Accordingly, we are unable to accord much weight to the valuation presented by defendant's expert.

Defendant's principal expert, Walter R. Kuehnle, adopted Professor Wright's mineral evaluation to which he added the 70 cents per acre figure which the Commission previously determined was the fair market value of both Areas 147 and 148, without any mineral enhancement.

Upon consideration of the record in this case including the material and opinions presented by the experts, the Commission has concluded that on December 30, 1829, the prospects for profitable lead mining in Area 147 were favorable. A prospective purchaser of the tract would have known the general location of virtually all the lead deposits which could be mined in the ensuing years. He would have known that production had been increasing during the seven year period ending in 1829, and he would have anticipated a continuing profitable operation.

At the same time a prospective purchaser would have been cautious in his expectations. He would have known that the price of lead had

experienced wide fluctuations, and at the end of 1829 it was at a low point. Transportation costs were likewise subject to variations, and labor and other production costs were not stable. The richness and extent of any ore deposit could not be safely predicted. He would have considered the risks and unforeseen hazards of such a mining venture and would have expected an accordingly generous return on his investment to reflect these uncertainties. In his book on the valuation of mineral property Roland Parks has enumerated some of the reasons why the mining industry is an outstanding example of those industries in which a high interest rate is expected.

> . . . . Mines are usually located far from the money centers of the country. Investors are not usually as well informed regarding mining as they are regarding the manufacturing, transportation, and public-service industries. The prices of metals are subject to greater fluctuations than are the prices of manufactured products, and this results in occasional periods of great profits alternating with longer periods of small profits or of losses. The enormous profits made by the original investors in some few mining enterprises and the lack of knowledge on the part of the public have made mining a fruitful field for unscrupulous promotors, so that the investing public has become timid regarding mining as an investment. These factors all contribute to decrease the supply of capital available to the mining industry and to increase the interest rate. Accordingly the rate of interest customarily expected by the investor in mining properties ranges upward from eight percent according to the branch of the industry, the location of the particular property, and the standing of the men backing it. [R. Parks, Examination and Valuation of Mineral Property (1949) (Def. Ex. 312, p. 218).]

In assessing the prospects for lead mining in Area 147, we have concluded that a prospective purchaser on December 30, 1829, could

reasonably have assumed a 20-year working life for the mining operation at an average yearly net profit of between $300,000.00 and $400,000.00. Such a profit could have been secured by producing 10,000 tons per year at a net profit of between $30.00 per ton (1.5 cents per pound) and $40.00 per ton (2.0 cents per pound).

Our 10,000 ton estimate for yearly production is substantially lower than the optimistic figures presented by Messrs. Behre and Parks (which averaged 16,307 tons per year). Our figure is, however, higher than Dr. Barlowe's 8,193 tons per year and the 6,734 tons average (over a 20 year period) which Messrs. Palmer and Gronbeck estimated. We cannot validly compare the Palmer-Gronbeck figures because they applied a hazard discount to their production estimates. Our figure is also substantially higher than Dr. Wright's estimate of 6,000 tons per year, which figure we feel is simply too pessimistic.

The future net profit would have been difficult to predict in 1829. We believe that an estimate of between 1.5 and 2.0 cents per pound would have been a reasonable assumption on the valuation date. The experts' profit figures ranged as follows:

	Cents per pound
Behre-Parks	2.2
Palmer-Gronbeck	2.02
Barlowe	1.55
Wright	1.968 (already discovered)
	0.551 (future discoveries)

In applying the Hoskold formula to compute a present value for such anticipated net profits, an appropriate interest rate must be selected to reflect both the return on the investment and the hazards of the venture. Since we have not applied any hazard discount to the production or net profit estimates, such considerations must be reflected in the selection of the Hoskold interest rates. We conclude that an appropriate rate on the investment would be between 12 and 15 percent, with a 4 percent rate on the redemption of capital funds. If the more conservative yearly net profit figure of $300,000.00 were used, the lower Hoskold rate of 12 percent would be justified. Use of the more liberal profit estimate of $400,000.00 would indicate the higher percentage rate of 15 percent. Applying our assumptions to the Hoskold formula we compute indicated values of $1,953,360.00 and $2,178,880.00. The Commission concludes that the December 30, 1829, fair market value of the mineral deposits in Area 147 was $2,000,000.00.

We turn now to a consideration of the value increment which the lead deposits in Area 147 added to the surface value of Areas 147 and 148. In its remand the Court of Claims noted that the mineral deposits would increase the value of the land beyond the increase occasioned by the lead itself. In its previous 1962 decision the Commission did consider many of the favorable factors which were related to the lead deposits and mining activities in the area. Among the factors considered were the populated places such as

> Galena, Illinois, the center of congregation in the Upper Mississippi Valley Lead Region . . . . [which town] had

> an 1829 population of about one thousand persons. In addition, there was a fluctuating population of some 2,000 persons in mining camps, in the mining region outside Galena, in small mining camps or settlements such as as Dodgeville and Gratiot's Grove.

Finding 31, 11 Ind. Cl. Comm. 641, 664-65. The Commission, in Finding 48, id. at 671-72, set forth the development of wagon trails and ferries occasioned by the discoveries of lead in the early 1820's. The Commission found that there was, in 1829, extensive traffic to the lead region. Teamsters spent the summer at the Upper Mississippi lead mines hauling ore from the mines to the furnaces and lead from the furnaces to Galena for shipment. The Commission also considered that the "subject lands enjoyed some favorable existing markets and there was also the prospect of foreseeable future markets. Miners afforded a market for food, traction livestock, and fuel." Finding 55, id. at 676.

However, contrary to the previous determination in this case, the Commission now finds that the United States did not reserve all lead-bearing lands within Area 147. In fact the only valid selections of land which had mineral deposits were mining leases embracing 8,320 acres. There were other extensive areas which were known to have lead deposits but which were not selected by the United States prior to the 1829 cession. In addition to the value which the lead

deposits themselves gave to the subject area, the presence of such minerals added other factors to be considered.

Those lands which were located in the immediate vicinity of known lead deposits had additional value for special uses. They were especially valuable as locations for settlements for the miners. They provided markets for agricultural products from the neighboring lands. The mining operations also required mine timbers and firewood for the smelters. The demands of the miners for other goods and services also enhanced the value of the mining areas and the surrounding lands. The development of mining towns and construction of roads also increased the surface value of the subject area.

While most of these factors were considered by the Commission in its 1962 decision, the exclusion of all lead bearing land from that evaluation resulted in a failure to adequately account for the full impact of mining upon the fair market value of Areas 147 and 148. We conclude that the many mineralized locations in Area 147 enhanced the surface value of that tract by an average of 10 cents per acre above the average value of 70 cents per acre previously found for the total area ceded in both Areas 147 and 148, 11 Ind. Cl. Comm. 641, 690. The fair market value of Area 148 was also enhanced by the lead bearing lands in the adjoining Area 147, although to a lesser degree. We conclude that such enhancement was an average of 5 cents per acre above the average value of 70 cents per acre previously determined.

Having determined the fair market value of the mineral deposits in Area 147, we must apportion the value between the United States and the Indians so as to give effect to those lead lands actually selected by the United States prior to the 1829 cession. The defendant contends that the following tracts were selected:

Mining leases	8,640 acres	
Mining permits	15,000 acres	
Total lead lands		23,640 acres
Smelter licenses	18,720 acres	
Cabins & gardens	3,000 acres	
Galena townsite	640 acres	
Total		22,360 acres
Total selected tracts		46,000 acres

Using these figures defendant's expert, Professor Wright, allocated the mineral value between the 23,640 acres of lead lands which defendant contends had been selected by the United States and that portion which had been retained by the Indians, and therefore included in the 1829 cession. Professor Wright concluded that 70% of the future production in Area 147 would have come from the lands selected by the United States. He therefore apportioned the value between the selected lands and the remaining lands (which would have accounted for only 30% of the future income). He further assumed that most of the production from the "remaining lands" would have come from undiscovered deposits and thus would have produced a net profit of only 0.551 cents per pound. Thus he calculated that the

mineral value of $649,861.00 should be apportioned to allocate $539,809.00 to the lands selected by the United States and the remaining $110,052.00 to the lands retained by the Indians and included in the cession. The Commission does not consider that Professor Wrights assumptions are supported by the evidence. We do not agree with the assumption that 70% of the future production would come from the selected lands, and we cannot accept the high discovery costs which account for the low net profit figure which he applied to the bulk of the production from the "remaining lands". For reasons which we shall later detail, we do not accept the defendant's tabulation of the tracts selected by the United States prior to the 1829 cession.

In finding 107 we have set forth the details of defendant's mathematical computation of the proposed award, and the method prescribed by the Court of Claims for allocating the award. While we cannot accept the valuation figures utilized by defendant, we are in agreement with the method which has been used.

We turn now to the Commission's determination of the acreage of those lands within Area 147 which were actually selected by the United States and the values of those selections. The Galena townsite of 640 acres was selected by the United States by the Act of February 5, 1829, 4 Stat. 334. This selection represented part of the 144,000 acres of the land which had been reserved by the 1816 Treaty, supra. There is no evidence that the 640 acres were lead bearing, and there is no evidence in the record that its value was greater than the value of other

non-lead lands in Area 147. Defendant has included this townsite acreage in the land valued at the average surface value (which it contends was 70 cents per acre). The Commission finds that this 640 acre tract was worth 80 cents per acre, or $512.00.

Through 1829 the United States had issued 39 mining leases in the Upper Mississippi Valley Lead District. The leases were to individuals and gave the holder the right to mine and smelt his own lead ore for a three-year period on 320 acres of land. Eleven of the 39 leases were located outside Area 147, and the locations of two leases are unknown. We find that 26 mining leases were issued in Area 147 for 320 acres each, or a total of 8,320 acres. By the granting of these mining leases, the United States selected 8,320 acres.

There is no evidence upon which to base any valuation of the particular lands covered by the leases. However, we can determine the average value of the "lead land" acres within the tract and apply that average value to the presumed "lead land" within each 320 acre lease.

Since we have found that in 1829 the total area of lead deposits within Area 147 was about 18,000 acres, and since we have determined that the 1829 fair market value of those lead deposits was $2,000,000.00, we can consider that the average "lead land" acre had a mineral value of $111.11. Applying this figure to the number of lead bearing acres within each mining lease, we can calculate a value for the mineral deposits which would have been present in the average 320 acre tract covered by each lease. Dr. Thomas P. Field prepared a report for

defendant on the location of lead mines and the areal extent of the lead deposits in Area 147. These studies enabled Mr. Kuehnle to make calculations of the acres of lead deposits which would be found for each lead bearing section (640 acres) and each lead bearing quarter section (160 acres). Using these calculations we have estimated, by interpolation, that for each 320 acre mining lease an average of 26.31 acres were actually lead lands. Applying the $111.11 average value per lead land acre, we arrive at a figure of $2,923.30 as the fair market value of lead deposits within each 320 acre mining lease. To this figure we add the $0.80 per acre valuation for the surface value of the 320 acre leases, or a total of $256.00. This results in a total fair market value of $3,179.30 for each mining lease. Therefore, the 26 mining leases were worth $82,661.80.

The United States also issued smelter licenses. While no specific acreage was allotted, the licenses provided that a smelter was to have sufficient fuel and land to provide feed for the work animals. The evidence indicates that 320 acres were generally considered sufficient to supply fuel and other necessary items for the smelter. However, three of the licenses were granted for 640 acres of timber land for smelting, and one was granted for 350 acres. We have determined that the remaining 25 smelter licenses were for 320 acres each. Defendant has asserted that another ten smelters were known to have been in the Upper Mississippi Valley Lead District, that they should be assumed to have been in Area 147, and that all smelters should be assumed to have occupied an average of 480 acres. However, we find no evidence to support these suppositions.

The Commission finds that the defendant did select 10,270 acres by the issuance of 29 smelter licenses, as follows:

3	smelters	at 640 acres =	1,920 acres
1	smelter	at 350 acres =	350 acres
25	smelters	at 320 acres =	8,000 acres
29	smelters	Total	=10,270 acres

These smelters were located near timber for fuel and near water for transportation. There is no evidence that they were on lead bearing lands. We find that these lands had a value of 80 cents per acre, or a total value of $8,216.00 for the entire 10,270 acres.

A system of permits was inaugurated in 1825 allowing two miners to stake a claim on 18.6 acres of land. On August 1, 1827, new regulations went into effect reducing the size to 8.26 acres of land. Permits for two and sometimes three acre lots were also issued to miners for cabins and gardens. No bond was required of the miners, and there was no time limit on the right to mine on the lot. Furthermore, the miners were at liberty to pull stakes and occupy another lot at any time they desired. The permits were issued to individual miners, and they did not describe any land. The permit holder might use the permit in any number of locations successively. There is no evidence that the Government ever attempted to keep records of the lands selected by the miners. We find that the permits were in the nature of personal, non-transferable licenses to prospect for ore. The issuance of miners' permits or permits for cabins and gardens did not constitute actual selectionsof land as part of the 144,000 acres reserved by the 1816 Treaty, supra.

In summary the Commission finds that the United States selected 19,230 acres pursuant to the provisions of the 1816 Treaty, which reserved 144,000 acres for the United States. The December 30, 1829, fair market value of those lands was $91,389.80.

We have set forth in Finding 109 the computations whereby we have determined the valuation and allocation as prescribed by the Court of Claims in its remand. From the total fair market value of Area 147, we have deducted the fair market value of the lands actually selected by the United States to arrive at a value of $3,129,239.00. This value has been allocated to the plaintiffs in the ratio which the acreage ceded to the United States bears to the total acreage of Area 147 less the acreage actually selected by the United States. This ratio is .9172 to 1. Therefore, the plaintiffs' share of the Area 147 valuation is $2,870,138.01.

The December 30, 1829, fair market value of Area 148 was $1,610,372.25.

The net award in this case is computed as follows:

Area 147	$ 2,870,138.01
Area 148	1,610,372.25
Total	$ 4,480,510.26
Less offsets	375,691.28
Net Award	$ 4,104,818.98

Citing the long period of time required to adjudicate this claim and the depreciating value of the dollar, plaintiffs in Docket 29-J argue that they should receive interest or its equivalent on their claims. Specifically they seek "interest at the rate of six (6%) per cent at least from the date of filing of their petition herein." There is no authority for the award of interest for "delays" in adjudicating claims or for the depreciated value of the dollar. The award in this case is based upon Clause 3, Section 2 of the Indian Claims Commission Act, supra, -- a claim based on the payment of an unconscionable consideration under the provision of the 1829 Treaty. There was no agreement in that treaty relating to the payment of interest. In the absence of such a specific agreement, awards rendered on claims arising under clause 3, section 2 of the Act do not bear interest.

In deciding the appeal in this case the Court of Claims severed the issue of who may share in the award, and that was the subject of Appeal No. 5-65 which was decided on June 9, 1967, Hannahville Indian Community v. United States, 180 Ct. Cl. 477. In that decision the court remanded Dockets 29-D, E, J, and K to the Commission with instructions that it "make a de novo determination of the political structure of the Potawatomi Indians at the times when the United States negotiated the various treaties with them giving rise to the claims asserted . . ." Id. at 486. The Commission, in compliance with that remand, found that the party with whom the United States dealt in

the 1829 Treaty, supra, was the Potawatomi Tribe or Nation. 27 Ind. Cl. Comm. 187 (1972). The Commission also ordered that the petition in Docket 29-J be amended to include the Potawatomi Indians of Indiana and Michigan, Inc. Id. at 327.

The award in this case is to the plaintiffs for and on behalf of the Potawatomi Tribe or Nation as it existed between 1795 and 1833.

Margaret H. Pierce

Margaret H. Pierce, Commissioner

We Concur:

John T. Vance, Commissioner

Richard W. Yarborough

Richard W. Yarborough, Commissioner

Kuykendall, Chairman, and Blue, Commissioner, concurring.

The issue of who may share in the award in these cases was considered by the Commission in Citizen Band of Potawatomi Indians v. United States, Dockets 71, et al., 27 Ind. Cl. Comm. 187 (1972). In our opinion there was no Potawatomi Tribe or Nation during the material period. Our view that the Potawatomi "tribe" was composed of politically autonomous land-owning bands, is set forth in the dissent in that case. Id. at 328-471. However, the majority having found that the recovery herein should be on behalf of the Potawatomi Tribe or Nation, we recognize that we are now bound thereby and concur in these cases.

Jerome K. Kuykendall, Chairman

Brantley Blue, Commissioner