

BEFORE THE INDIAN CLAIMS COMMISSION

GOSHUTE TRIBE OR IDENTIFIABLE)	
GROUP, REPRESENTED BY THE)	
CONFEDERATED TRIBES OF THE)	
GOSHUTE RESERVATION,)	
)	
Plaintiff,)	
v.)	Docket No. 326-J
)	
THE UNITED STATES OF AMERICA,)	
)	
Defendant.)	

Decided: August 9, 1973

FINDINGS OF FACT

The Commission makes the following findings of fact which are supplemental to the findings of fact previously entered in Dockets 326, 367, Shoshone Tribe of Indians v. United States, 11 Ind. Cl. Comm. 387 (1962) numbered 1 through 26.

27. Date of Extinguishment of Aboriginal Title

The Commission previously determined that plaintiff's aboriginal title to lands located in northwestern Utah and northeastern Nevada was extinguished by gradual white encroachment. Shoshone Tribe of Indians v. United States, Dockets 326, 367, 11 Ind. Cl. Comm. 387, 416 (1962).

a. The Treaty of October 12, 1863

In 1863, after receiving numerous complaints from the managers of overland stage agencies that bands of Shoshone Indians were attacking the agencies and the coaches and disrupting overland travel and communication, Congress appropriated \$20,000.00 to defray the costs of a special commission, chaired by Governor James B. Doty, to negotiate

and execute treaties with the five major Shoshone Bands of Indians. Act of July 5, 1862, 12 Stat. 512, 529. The United States and the Goshute Bands executed a Treaty on October 12, 1863, 13 Stat. 681, which treaty was ratified on March 7, 1864.

The introductory paragraph and Article I of the 1863 Treaty indicate that the treaty was for peace and friendship and not a treaty of cession. Cf. Northwest Bands of Shoshone Indians v. United States, 324 U.S. 335, 349 (1945). Article II of the 1863 Treaty assured "emigrants and travellers" of the right to travel through the Goshute tract "without molestation or injury." Article III granted easements through the Goshute land for transportation and communication. Article IV provided as follows:

It is further agreed by the parties hereto that the country of the Goshute tribe may be explored and prospected for gold and silver, or other minerals and metals; and when mines are discovered they may be worked, and mining and agricultural settlements formed and ranchos established wherever they may be required. Mills may be erected and timber taken for their use, as also for building and other purposes, in any part of said country.

Article V described the boundaries of the lands claimed and occupied by the Goshutes. Article VI provided for the eventual removal of the Goshutes to reservations to be selected by the President, and Article VII granted the Goshutes a 20-year annuity of \$1,000.00 per year to compensate the tribe for inconvenience caused by "the driving away and destruction of game . . . and by the formation of agricultural and mining settlements. . ."

In his schedule of Indian land cessions, Charles C. Royce points out that the Goshute tract was "taken possession of by the United States without formal purchase." (18th Annual Report of the Bureau of American Ethnology, Part 2 at 85 (1896-97).)

b. Events after the 1863 Treaty

Plaintiff introduced an historical report prepared by Messrs. James B. Allen and Ted J. Warner, Associate Professors of History at Brigham Young University (Plaintiff's Exhibit No. 16). The report indicates that after executing the 1863 Treaty, supra, many Goshute Indians settled in Deep Creek and Skull Valley (the present location of the Goshute Indian Reservations). The Goshute began cultivating the land and raising agricultural products for their sustenance. However, the farming land in these two areas was neither large enough nor fertile enough to support the entire Goshute Band, which was estimated to be between 400 and 800. Thus, the Goshutes again began to roam over and use their entire aboriginal territory.

By 1865, Congress concluded that the only way to secure the area for mining and overland routes was to negotiate and execute a treaty of cession which would provide for the permanent removal of the Goshute Bands. Suggestions were made by members of the executive and legislative branches of government that the Goshute be removed to either the Uinta Reservation in Utah, the Fort Hall Reservation in Idaho, or the Kiowa Comanche and Apache Reservation in Indian Territory (now part of the State of Oklahoma). To facilitate removal of the Goshute Band and other Utah Indians to reservations, Congress passed the Act of February 23, 1865,

13 Stat. 432, directing the President to "enter into treaties . . . [which would] provide for the absolute surrender to the United States . . . of [the Indians'] possessory right to all agricultural and mineral lands. . . ."

In an apparent attempt to enforce the 1865 Removal Act, Indian Commissioner William P. Dole wrote to the Superintendent of Utah Indians, O. H. Irish, on March 28, 1865, stating that the time had come to remove the Goshutes to reservations pursuant to Article VI of the 1863 Treaty. Dole suggested that a treaty of cession be negotiated with the Goshutes and that in the event that the Goshutes refused to execute a treaty of cession the Goshute Band be forcibly removed from its aboriginal land.

The plan of Commissioner Dole apparently was never implemented and by the end of the 1860's some 800 Goshutes were living in the Utah portion of their aboriginal land. Utah Indian Superintendent F. H. Head reported that 30 acres of wheat, potatoes and turnips were under cultivation at the Deep Creek farm. William Lee, a Mormon farmer assigned by Superintendent Head to assist the Goshutes at Skull Valley, outfitted the Goshute Indians with teams, plows, and other agricultural implements. Mr. Lee reported that 100 bushels of potatoes, beets, and carrots were raised in 1869.

During 1869 the Deep Creek Reservation was surveyed in order that it might be sold to white settlers and the Goshute Indians removed. Indian Superintendent J. E. Tourtellotte informed Indian Affairs Commissioner Parker that the Goshutes were

fearful of other Indian tribes and deeply resented governmental efforts to remove them from their ancestral lands. Mr. Tourtellotte requested that, if the contemplated removal was to be enforced, the Deep Creek farming lands not be sold until another suitable location was established. In 1870, Indian Commissioner Parker stated that the Goshutes should be removed and resettled on the Uinta Reservation. In response to Commissioner Parker, Superintendent Tourtellotte pointed out the reasons why resettlement on the Uinta Reservation would be an unsatisfactory solution:

The Goship Shoshones do not speak the same language as Indians of Uintah Valley: they fear them and charge them with stealing squaws.

The Goship Shoshones are allied in habits, language and by marriage with the Western and North Western Shoshones. All these Indians were probably, at some former time, of one tribe.

I don't think the consent of the Goship Shoshones could be obtained for settling them in Uintah Valley. It would be far more satisfactory to Indians to locate the Goships with other Shoshone Indians. (Annual Report, Commissioner Indian Affairs, 1869, pp. 230-31, Plaintiff's Exhibit 16, p. 15.)

c. Special Commissions Appointed To Facilitate Removal of the Goshutes

In 1871, Indian Affairs Commissioner Walker appointed George W. Dodge as a special agent to investigate the living conditions of the Goshute Band and other western Indian tribes. Mr. Dodge reported that the Goshutes were impoverished and that the annual treaty annuity of \$1,000.00 would have to be increased substantially to insure the survival of the Goshute Indians. Mr. Dodge recommended that the Goshutes be resettled on the Kiowa Comanche and Apache Reservation,

because the Goshutes and the Comanches were of the same nation and had a common language.

In 1873, Indian Affairs Commissioner Smith appointed a special commission composed of John W. Powell and George W. Ingalls to investigate the living conditions of the Goshute Indians. The Powell-Ingalls Commission made a preliminary report dated June 18, 1873, pointing out that the total Goshute Indian population was 400 persons, that some of the Goshute Indians were engaged in farming at Skull Valley, Deep Creek, Salt Marsh, and Warm Springs, and that other Goshutes still were roaming upon the entire Goshute tract in search of game and pine nuts for food. The Powell-Ingalls Commission recommended that the Goshutes be informed that they were going to be resettled on an existing Indian reservation, probably the Uinta Reservation, and that no further treaty annuities would be distributed to them unless they accepted removal from their aboriginal lands.

When the Goshute Indians were informed of the recommendations of the Powell-Ingalls Commission, the Goshutes living at Skull Valley expressed their disapproval of the contemplated removal to General H. A. Morrow, Commander of the Cavalry stationed at Camp Douglas, Utah. General Morrow relayed the Goshutes' distress to Indian Commissioner Smith, pointing out that the land in Skull Valley was not suitable for farming by white people and that, in the event the Goshutes were removed, the land would probably revert to desert conditions. General Morrow proposed that all of the Goshutes, which he determined to be 700, be settled on the Skull Valley farm.

The Powell-Ingalls Commission, however, continued in its efforts to remove and resettle the Goshute Indians. In its final report in late 1873, the commission stressed the poor living conditions under which the Goshutes existed and concluded that removal and resettlement on the Uinta Reservation was the only method to prevent the Goshutes from becoming "a class of wandering beggars."

d. Extinguishment of Plaintiff's Aboriginal Title

In 1875 John W. Powell reported that the Goshutes were willing to settle on a reservation. After that time the Goshutes did not occupy and use their ancestral lands. They were concentrated at Deep Creek and at Skull Valley, where they continued to live and farm. The Goshutes became almost a forgotten tribe, virtually disappearing from the correspondence and reports of the Office of Indian Affairs. White settlers had occupied the choicest land, and the Goshute remained at Deep Creek and Skull Valley where reservations were formally established for them by Executive orders on March 23, 1914 (Deep Creek), 4 Kapp. 1048, September 7, 1917, and February 15, 1918 (Skull Valley), Id. at 1049.

The Commission finds that as of January 1, 1875, the plaintiff's aboriginal title to the lands described in finding 22, 11 Ind. Cl. Comm. 387, 413, with the exception of two small areas at Deep Creek and Skull Valley, ^{1/} was extinguished. Accordingly, the date of valuation for

1/ The two areas at Deep Creek and Skull Valley include 128,196.35 acres, which lands were subsequently set aside as Executive order reservations for the Goshutes. The parties have agreed that these areas are to be excluded from the lands to be valued.

the lands taken from the Goshutes is January 1, 1875.^{2/}

28. Size of The Goshute Tract

The Commission has previously determined that the Goshute Tribe exclusively used, occupied and held aboriginal Indian title to a tract of land described in finding 22. Shoshone Tribe of Indians v. United States, supra, at p. 413. The area described in finding 22 embraces 5,952,000 acres and includes 128,196.35 acres set aside for present-day Indian reservations, which are not to be valued. The balance of 5,823,803.65 acres is to be valued.

29. General Geographic Description

The Goshute tract is located within the present counties of Tooele, Juab and Millard in the western part of the State of Utah and Elko and White Pine Counties in the eastern portion of the State of Nevada. The subject area is characterized by roughly parallel mountain ranges running in a generally north-south direction which are separated by desert basins or plateaus, usually referred to as valleys. The mountain ranges rise to a height of over 10,000 feet above sea level, and the plateaus are located between 5,000 and 6,000 feet above sea level. The plateaus are quite level and vary in length from 50 to 75 miles and are between 6 and 15 miles in width.

^{2/} Pursuant to Rule 26 of the rules of the Indian Claims Commission, 25 CFR §503.26 (1968), a report of the Commissioner was entered October 13, 1969, stating that the date of taking in this case was January 1, 1875. No exceptions to this report were made and the parties herein used January 1, 1875, as the date of evaluation.

30. Climate and Precipitation

The climate of the Goshute tract may be classified as semiarid. Precipitation varies from 9 to 16 inches yearly in the valleys to a high of 50 inches annually in the mountain watersheds. Normally precipitation falls between November and May. However, the area is characterized by a low humidity and a high water evaporation level of up to 50 inches per year.

The growing season lasts from June until mid-September averaging less than 100 days. The average mean temperature of 44° F. and the scarcity of rainwater limit the type of crops which may be raised. In general the lands must be irrigated to grow agricultural products.

31. Drainage and Surface Water

There are no large rivers in the award area, and most of the streams drain into the Great Salt Lake. The other streams drain into basins where water stands for short intervals and mud accumulates. The streams generally flow during late winter and early spring. Ground water varies in depth from 40 to 100 feet, and surface springs are rare. The ground water found in basins is usually salty, and the underlying solid rock often is reached without locating spring water.

32. Soils and Vegetation

The major soil groups in the area are (1) Portneuf-Sagemoor, (2) McCammon Deschutes, (3) Lahontan-Terminal, and (4) Rough Stony land (not forested). The Portneuf-Sagemoor soils support sagebrush vegetation. The dominant shrub is the big sagebrush with various

subspecies intermingled. The major woodland types are Utah juniper and pinon pine with scattered stands of conifers located in canyons and mountainous areas.

33. Early Development of the Goshute Tract

Spanish explorers had entered the Great Basin area in the 16th century, but American trappers and mountaineers did not explore the area until the 19th century. The first permanent non-Indian settlements in the Goshute tract were established by Mormons for agricultural purposes. In October 1849, Ezra T. Benson and some Mormon companions began construction of a sawmill in Tooele Valley. By the end of 1849, about 12 families had permanently settled in the Tooele Valley. The 1850 census listed 152 non-Indians as inhabitants of the Tooele Valley.

The Territory of Utah was established on September 7, 1850. The territorial boundaries were proclaimed as the 37th parallel on the south; California on the west; Oregon on the north; and the Rocky Mountains on the east. The townsite of Tooele was located and surveyed in 1853, and more settlers arrived in 1854. Generally, white settlements were located near streams to facilitate growing agricultural products and livestock grazing. As previously indicated, the first sawmill was built within the subject tract in 1849, and by 1850 two other sawmills were in use. A grist mill was located at the mouth of the Settlement Canyon in 1853, and another was built at Lake Point in 1854.

A number of additional settlements were located in the eastern portion of Tooele County in the early 1860's. A Pony Express station was established at Faust, in Rush Valley, and a smaller settlement providing mail services and a general store was established at Center in 1863.

The major spur for development of the subject tract, however, was occasioned by the discovery of silver and other valuable minerals within the Goshute tract in 1863. The first mineral discoveries were made along the route of the Overland Stage, and further prospecting was limited at first. But after the Civil War began, General E. P. Connor and his California volunteers were stationed at Camp Douglas which overlooks Salt Lake City. A high percentage of the soldiers apparently had prospected for gold in California and spent their off-duty time searching for minerals. In 1863, the first mining district was established in Utah, and it covered part of Tooele County. Between the first mineral discoveries and 1875, approximately 30 mining districts were organized within or adjacent to the Goshute tract, and the non-Indian population grew proportionately during this period of time.

The Territory of Nevada was organized on March 2, 1861. The territorial boundaries were proclaimed as including the land west of the 39 degree of longitude west from Washington, D. C. The eastern territorial boundary was extended one degree in 1862 and another degree easterly in 1866. Nevada was proclaimed a State on October 31, 1864, but Utah did not secure statehood until January 4, 1896.

34. Transportation and Communication Facilities

The Goshute tract was accessible by land routes from all directions. The subject area was serviced directly by the Pony Express, the Overland Stage and telegraph lines. Additionally, the transcontinental rail line had been completed in 1869, and a railroad terminal was located 30 miles north of the subject tract at Toiyabe, Nevada. The Utah railroad terminal was 45 to 50 miles north of the Goshute tract. By 1875 a feeder

line had been completed by the Utah and Nevada Railroad Company connecting the Tooele Valley with Salt Lake City. Thus adequate transportation and communication facilities were available for development of the subject area.

35. General Economic Conditions

The United States was in the midst of a severe economic depression during the period when the subject tract is to be valued. However, the general downward economic trend nationally did not have a great effect on economic growth within the Goshute tract. The established mining communities were ready markets for agricultural crops and livestock. Markets also existed for salt and timber.

36. Livestock Ranching Development within the Goshute Tract

The original Mormon settlers raised cattle in quantities necessary for local consumption. But the increased demand for fresh meat by the burgeoning mining population afforded an expanded market and accelerated the growth of the livestock industry within the subject area.

The growth of livestock ranching is evidenced by the marked increase in the number of cattle present within the award area at the time of valuation. Don D. Walker, Director of American Studies, University of Utah, determined that the increase in cattle during the period from 1860 through 1870 in the counties of Juab, Millard, and Tooele in Utah was as follows:

<u>Cattle Recorded in Utah Counties</u>		
<u>Name of County</u>	<u>Year</u> <u>1860</u>	<u>Year</u> <u>1870</u>
Juab	763	1,067
Millard	1,523	4,956
Tooele	1,136	2,031

(The Cattle Industry of Utah, 1850-1860; An Historical Profile, Vol. 32, No. 3, Utah Historical Quarterly, Summer, 1964, Defendant's Exhibit 19, p. 191.)

In their History of Nevada 1881, Thompson and West tabulated the number of livestock in White Pine and Elko Counties, Nevada, during the years from 1873 through 1877 as follows:

Livestock Recorded in Nevada Counties

<u>White Pine County</u>	<u>1873</u>	<u>1874</u>	<u>1875</u>	<u>1876</u>	<u>1877</u>
Cattle	11,618	10,832	22,400	21,650	23,007
Sheep	400	2,500	4,372	8,120	No data
 <u>Elko County</u>					
Cattle	54,000	40,200	No data	36,780	38,170
Sheep	17,000	30,000	12,216	5,987	No data

(Defendant's Exhibit G-15, p. 139)

The Goshute tract lies mainly within the area which is now known as the West Desert. In this area desert shrubs and water from winter snows provide forage and water for grazing purposes. In addition to livestock permanently raised within the tract, the area was used for the grazing of migrating cattle and sheep. Until the enactment of the Taylor Grazing Act in 1934, 48 Stat. 1269, bands of sheep, referred to as "tramp sheep" were driven into the area for winter grazing. When summer came, the migrating sheep were moved to the mountainous areas. Many herds were driven over a distance of two hundred to three hundred miles

throughout the year. The 1875 assessment records for Tooele County show the number of migrating livestock as follows:

<u>Name</u>	<u>No. Livestock</u>	<u>Valley</u>
John Devine	500 cattle	Deep Creek
Foote & Son	200 cattle	Tooele Valley
Ferguson Bros.	300 cattle	Deep Creek
Ed Hunter	1,000 sheep	Grantsville
William Jennings	800 cattle	Skull Valley
Utah Stock Company	300 cattle	Skull Valley
Wells Fargo Company	1,250 cattle	Skull Valley
Worthington Bros.	810 cattle	Deep Creek
Harker Bros.	1,225 sheep	Vernon

(Defendant's Exhibit G-49)

In a Report to Congress in 1936, the Secretary of Agriculture stated that forage on open rangelands, such as the Goshute tract, had been seriously depleted through uncontrolled grazing and erosion. The Western Range (Sen. Doc. No. 199, 74th Cong. 2d Sess. 1936, Plaintiff's Exhibit 87). The major types of vegetation within the subject tract were found to have been depleted from virgin conditions in the following percentages: sagebrush grass 66%; salt desert shrub 70%; pinion-juniper 61%. A conservative estimate of the total depletion in 1936 from virgin conditions within the Goshute tract was 65%.

37. Agricultural Development Within The Goshute Tract

The development of agriculture was greatly encouraged during the Civil War when Union troops were sent to the area. At first, farming was done by the Mormon settlers for the production of food to sustain their settlements. But as mining activity increased and overland stage travel grew, ready

markets developed for the sale of agricultural products. Tooele County records establish that in 1870 there were 2,888 acres of land tilled yielding crops of wheat, hay and corn for both human and livestock consumption.

The vast majority of land within Utah is not suitable for cultivation. At the present time only 3.3% of all the land within Utah is used for farming, and only 10% of that land is dry farmed. But the land found on the fans and terraces of the Goshute tract adjacent to the mountains was highly suitable for dry farming. The major areas of agricultural development were located in the Tooele, Rush, Skull, Deep Creek, and Snake Valleys of Utah and the Steptoe and Spring Valleys of Nevada. In these areas irrigation projects were developed to maximize available farming land. The exact amount of land within the subject tract irrigated and used for farming at the date of valuation is unknown. However, in 1874, 18,000 acres of farmland in Elko County, Nevada, were irrigated, and 3,000 acres of irrigated land were being farmed in White Pine County, Nevada. Thus it would appear that irrigated farming was extensive at the valuation date.

38. Timber Within The Goshute Tract

Stands of coniferous timber were found throughout the Goshute tract at the valuation date. Generally, the timber was located in the mountain ranges and consisted of pinion pine and mountain juniper. At the present time, portions of the subject area lie within the Humboldt National Forest in Nevada and the Wasatch National Forest in Utah.

Commercial logging development was retarded both because high quality timber was scattered throughout the area and because the better lumber grades were usually found in inaccessible mountainous locations. By 1875 four sawmills were located in White Pine County, Nevada, and one sawmill was operating in Elko County, Nevada. Over one million board feet of lumber was cut in Elko and White Pine Counties in 1875 and 1876 according to reports of the Surveyor General.

Within the Utah portion of the award area, five sawmills were in operation during the 1870's. The mills were located at Settlement Canyon, Lake Point and Middle Canyon. The available lumber was used for building homes, barns, fencing, and for railroad ties. In addition, the lumber was used as charcoal for mineral smelting. Writing in 1868, Rossiter W. Raymond, Special Commissioner of Mining Statistics, U. S. Treasury Department, reported that:

. . . Wood of good quality is abundant, and can be had for the cost of cutting and hauling. All of the wood land in the vicinity is being claimed by parties who propose to cut wood for the mills and to supply the miners. Lumber costs \$150 per 1,000 feet for ordinary, \$175.00 per 1,000 feet for choice at Hamilton, where there is a little steam sawmill with a single circular saw constantly engaged in cutting lumber from the "bull pine" . . . which grows on the White Pine Mountain proper, in considerable quantities, and of sufficient size to afford saw logs 20 to 25 feet in length and two feet thick. . . . Mineral Resources of The States and Territories West of The Rocky Mountains (Washington, 1869, p. 215, Plaintiff's Exhibit 7i, p. 45).

39. Classification Of The Goshute Tract By The Parties' Appraisers

a. Plaintiff's Classification

The plaintiff's general appraiser, Mont H. Saunderson, classified

the subject area (including the land within the two Executive order Indian reservations) into six categories which are (1) grazing lands, (2) timberlands, (3) croplands, (4) mining lands, (5) townsites, and (6) wastelands. Mr. Saunderson, further, subdivided the grazing lands into three principal types: (1) sagebrush-grass, (2) desert shrub, and (3) pinion-juniper woodland. Thereafter, Mr. Saunderson determined the acreage for each sub-type of the grazing lands to be:

A. Sagebrush-grass	2,391,500	acres
B. Pinion-juniper	2,090,000	acres
C. Desert shrub	<u>725,000</u>	<u>acres</u>
	5,206,500	acres
Less Rangelands in Reservations	124,296.35	acres
Total Rangelands in Goshute Tract	5,082,203.65	acres

Mr. Saunderson determined the location and total acreage of the timberlands as follows:

<u>Location of timber lands site</u>	<u>Acreage</u>
Stansbury Range (Southwestern Spruce- Fir Forest, two sites)	26,000
Deep Creek Range (Southwestern Spruce- Fir Forest)	39,000
Schell Creek Range (Great Basin Pine Forest)	80,000
Snake Range (Great Basin Pine Forest)	70,000

<u>Location of timber lands site</u>	<u>Acreage</u>
Cherry Creek Range (Great Basin Pine Forest)	45,000
Area totals -	260,000
Less timber located in Reservations	<u>1,800</u> acres
Total timber acreage in Goshute Tract	258,200 acres

The croplands acreage was estimated as follows:

<u>Name of valley</u>	<u>Acres of crop land</u>
Tooele Valley	30,000
Rush Valley	17,500
Skull Valley	5,000
Deep Creek Valley	1,500
Snake Valley	1,000
Steptoe Valley	43,500
Spring Valley	<u>25,000</u>
Area total	123,500
Less croplands located in Reservations	<u>2,100</u>
Total cropland acreage within Goshute tract	121,400

Mr. Saunderson concluded that 2,000 acres within the subject area should be classified as townsites. The principal towns in the area were the Utah towns of Tooele, Grantsville and Stockton and the mining

centers of Cherry Creek and Shellbourne in Nevada. Mr. Saunderson further estimated that 10,000 acres of land were exclusively used for mining purposes and that 350,000 acres should be classified as wasteland.

b. Defendant's Classification

The defendant's appraiser, Harley M. McDowell, classified the subject tract into four categories of land use and determined the acreage within each land category as follows: (1) Range lands - 5,588,000 acres, (2) Forested lands - 159,000 acres, (3) Urban lands - 1,800 acres, and (4) Tillable lands - 75,000 acres. The location and amounts of tillable acreage was determined to be:

<u>State</u>	<u>Valley</u>	<u>Acres</u>
Utah	Tooele	22,000
	Rush	20,000
	Skull	2,000
	Snake	7,000
	Deep Creek	5,000
Nevada	Spring	9,000
	Steptoe	<u>10,000</u>
	Total	75,000

Mr. McDowell estimated the total timber acreage on the basis of present day records. A total of 236,000 acres are located in the Humboldt National Forest in Nevada, and 80,000 acres are located in the Wasatch National Forest in Utah. Another 60,000 acres of forested lands are found in the Oquir and Cedar Mountains. A 1967 inventory of commercial timber conducted by the Forest Service determined that 57.8% of these lands are non-forested. Assuming that the gross acreage

of the timber lands remained unchanged from the date of valuation, Mr. Saunderson used 57.8% of the figure to compute the total forested lands to have been 159,000 acres in 1875.

40. Determination of the Highest and Best Use of The Goshute Tract

The Commission finds that the principal use for the surface land within the Goshute tract was for livestock grazing. Stands of timber were scattered throughout the award area, but these areas also were used for grazing. Approximately 100,000 acres were suitable for the growing of crops. There were towns located on about 1,800 acres and approximately 10,000 acres were devoted to mining. In summary the Commission finds the highest and best uses for the Goshute tract at the valuation date were as follows:

<u>Land Use</u>	<u>Acreage</u>
Grazing Lands	5,462,003.65
Timbered Grazing Lands	250,000
Agricultural Lands	100,000
Townsites	1,800
Mineral Lands	<u>10,000</u>
Total Acreage to Be Valued in the Goshute Tract	5,823,803.65

41. The Plaintiff's Surface Value Conclusions

Plaintiff's expert appraiser, Mr. Saunderson, determined the fair market value for each land use category, assigning a separate value for each type of forage located on the rangelands. He also determined

the fair market value of the lands within the Indian reservations and deducted this total from his surface value conclusions. Mr. Saunderson believed that a general size discount should not be used in this case because his appraisal methods adequately reflected a size discount factor. The market data approach was used by Mr. Saunderson to value the tillable land and the townsites, but there was not sufficient sales data to enable him to use the market data approach to evaluate the range and timber lands.

a. Appraisal of the Rangelands

Mr. Saunderson believed that few sales of rangelands in the vicinity of the award area had occurred because federal law and federal land policies discouraged the assemblage of land in sufficient quantities to develop a successful ranching operation. Consequently, ranchers freely used the public domain to graze their cattle, and there were not many sales of rangeland. The only sales of grazing lands in the vicinity of the award area, discussed by Mr. Saunderson, occurred in the late 1890's when the Central Pacific Railroad sold sagebrush grass forage rangelands in Box Elder County, Nevada, for \$1.43 per acre. In Mr. Saunderson's opinion, rangeland sales by railroads were infrequent because the railroads owned the land in a checkerboard fashion. In order to amass land in quantities sufficient for successful ranching operations, a purchaser would have had to buy the interspersed government-owned lands at the statutory minimum of \$2.50 per acre. Failure to purchase the government land would have subjected the owner to the possibility that another person would purchase government land within the grazing unit.

Mr. Saunderson used three approaches to value the rangelands. Initially, he used animal unit production capacity values to compare rangeland sales in the Humboldt River Valley (Nevada) to the Goshute tract. The Central Pacific Railroad, as of November 1, 1880, had sold some 726,534 acres of grant lands for an average price of \$5.95 per acre. Mr. Saunderson considered that the lands involved in those sales would have yielded two animal unit months of livestock maintenance per acre. The sagebrush-grass rangelands in the Goshute tract would have required three acres per animal unit month of livestock maintenance. Therefore, since the choicest grazing land in the subject area was only one-sixth as valuable as the rangeland sold by the Central Pacific Railroad, Mr. Saunderson concluded that the sagebrush-grass category of Goshute rangeland had a fair market value of \$1.00 per acre.

Another appraisal method, which Mr. Saunderson used, was based on a general estimate of ranch land investment per unit of capacity, which was then applied to the subject lands on the basis of the estimated animal unit capacity. Mr. Saunderson relied on a report that the ten year (1871-80) average value per head of cattle on ranches and farms in Nevada was \$22.00. He increased this figure to \$30.00 per animal unit because he considered that, in a typical makeup of ranching herds, the per head value is around 75% of the animal unit value. He then utilized a table in The Western Range (supra at 194, Plaintiff's Exhibit 87), which estimated that a ranch enterprise in Utah, Idaho, and Nevada would have represented 43% of the investment for cattle, 45% for land and 12% for other costs. The table

was based generally on data assembled in 1927-28. Applying the percentage allocations to the \$30.00 per animal unit figure and dividing by the 36 acres of sagebrush-grass type rangeland required for each animal unit, Mr. Saunderson computed a 90¢ per acre value for sagebrush-grass type rangeland.

The final appraisal method used by Mr. Saunderson, compared the rangelands of the award area to two rangeland transactions in other regions. A 200,000 acre tract of rangeland in Alberta, Canada, having a cattle carrying capacity of 24 animal units yearlong, was sold in 1901 for \$2.00 per acre. Mr. Saunderson believed that this land was comparable to the sagebrush-grass rangelands of the award area. After discounting the sale price of the Alberta rangelands because the sale had occurred at a later date, Mr. Saunderson concluded that it supported his conclusion that the value of the sagebrush-grass forage of the Goshute tract was \$1.00 per acre.

Mr. Saunderson also relied on an 1882 newspaper report of a purchase of 750,000 acres of grazing lands in Montana from the Northern Pacific Railroad for \$1.00 per acre. The cattle carrying capacity of these lands was roughly equal that of the sagebrush-grass forage areas of the Goshute tract. Although the Montana sale was not finalized, the negotiations were evidently completed. Mr. Saunderson concluded that the information from this proposed transaction indicated a probable value of \$1.00 per acre for the sagebrush-grass rangeland of the Goshute tract.

After reviewing the value conclusions obtained by using these

appraisal methods, Mr. Saunderson assigned a value to each type of forage found upon the award area, as follows:

	<u>Acres</u>	<u>Value per Acre</u>	<u>Total Value</u>
Sagebrush-grass	2,391,500	\$1.00	\$2,391,500
Pinion-juniper	2,090,000	.95	1,985,500
Desert shrub	<u>725,000</u>	.50	<u>362,500</u>
	5,206,500		\$4,739,500

b. Appraisal of the Timberland

In evaluating the timberlands, Mr. Saunderson considered timber stumpage price information from other sections of the country. Mr. Saunderson believed that the average stumpage price for timber in 1900 in Idaho, \$1.09 per thousand board feet, provided the most relevant information. Adjusting this stumpage price to \$1.00 per thousand board feet for timber within the award area, Mr. Saunderson calculated the probable number of board feet within the timber acreage of the award area, as follows:

<u>Location</u>	<u>Acreage</u>	<u>Probable board feet per acre</u>
Stansbury Range (Southwestern Spruce- Fir Forest, two sites)	26,000	4,500
Deep Creek Range (Southwestern Spruce- Fir Forest)	39,000	4,000
Schell Creek Range (Great Basin Pine Forest)	80,000	5,000

Snake Range (Great Basin Pine Forest)	70,000	4,000
Cherry Creek Range (Great Basin Pine Forest)	45,000	4,000
	<hr/>	
Area totals -	260,000	

Applying his stumpage price analysis, Mr. Saunderson concluded that the fair market value of the timberlands was \$5.00 per acre or a total value of \$1,300,000.00.

c. Appraisal of Agricultural Lands

Mr. Saunderson relied upon the market data approach in valuing the agricultural lands within the award area. Mr. Saunderson used the sales of Nevada and Utah land grants to show the potential marketability of tillable land within the Goshute tract. However, the sales prices of state land grants were not considered an indication of the market value of the land because the sales prices were established by administrative policy and, in Utah, occurred during a period of general economic decline. Sales of tillable land by the Central Pacific Railroad in Box Elder County, Utah, and Elko County, Nevada, were also considered. Mr. Saunderson believed that the Elko County sales, occurring between 1877 and 1879 and averaging \$4.20 per acre were indicative of the market value of tillable land at the valuation date. The Box Elder County sales, occurring between 1884 and 1885, sold for substantially less, \$2.05 per acre. Since they occurred during a period of general economic decline, Mr. Saunderson disregarded those sales.

In Mr. Saunderson's opinion, the most pertinent evidence of market value were the sales by the Central Pacific Railroad of land in the Humboldt River Valley area of Nevada in the late 1870's and early 1880's. The Humboldt River Valley land was purchased primarily by persons developing hay meadows as base properties for ranching operations, and Mr. Saunderson believed that the tillable lands within the award area were highly suitable for that purpose. A total of 726,534.54 acres of land were sold by the Central Pacific Railroad at an average price of \$5.95 per acre. Accordingly Mr. Saunderson concluded that the market value of the tillable lands within the Goshute tract at the valuation date was \$741,000, or \$6.00 per acre.

d. Appraisal of Townsites

In evaluating the townsites, Mr. Saunderson concluded that the sales prices of urban lands within the award area at the valuation date undoubtedly included the cost of improvements. Therefore, he did not rely on those sales. Mr. Saunderson reviewed the sales of land in the town of Tooele between 1853 and 1855 when the town was first established and concluded that the average sales price for unimproved town lots was \$10.00 per acre. Considering that urban lands had increased in value by the 1875 valuation date because of increased mining activity, Mr. Saunderson concluded that the fair market value of the townsite land was \$50.00 per acre, or a total value of \$100,000.00.

e. Summary of Plaintiff's Surface Appraisal

In summary, the value conclusions of the plaintiff's surface appraiser are as follows:

<u>Land classification</u>	<u>Acreage</u>	<u>Value per acre</u>	<u>Total value</u>
Agricultural crop lands	123,500	\$ 6.00	\$ 741,000.00
Timber lands	260,000	5.00	1,300,000.00
Range lands:			
Sagebrush-grass	2,391,500	1.00	2,391,500.00
Pinon-juniper	2,090,000	.95	1,985,500.00
Desert shrub	725,000	.50	362,500.00
Townsite lands	2,000	50.00	100,000.00
Mining lands	10,000	-	-
Wastelands	<u>350,000</u>	<u>-</u>	<u>-</u>
Totals	5,952,000		\$6,880,500.00
Less value of Indian Reservations			<u>143,051.75</u>
		Total	\$6,737,448.25

42. The Defendant's Surface Value Conclusions

In valuing the Goshute tract, the defendant's general appraiser, Harley M. McDowell, relied on market data. Having previously concluded that the highest and best use for the major portion of the surface land within the Goshute tract was for the production of livestock forage, either in its natural state or under a cropping program upon irrigable land, Mr. McDowell valued the rangelands as one entire unit. Separate values were determined for the tillable lands and the townsites, but the timberlands were evaluated as a part of the grazing lands and not as a separate land use category.

a. Evaluation of the Rangelands

Mr. McDowell analyzed comparable sales of large tracts of rangelands in the vicinity of the award area. He related the values to the subject area on the basis of cattle carrying capacities of the rangelands involved. Data from the Bureau of Land Management of the U. S. Government (BLM) indicates that under present conditions 168.6 acres of forage growth upon the rangelands of the award area are required to sustain one mature cattle unit yearlong. Thus the maximum herd sustainable upon the subject tract today is conservatively estimated to be 34,000 head of cattle. In its 1936 publication, The Western Range, supra, the Department of Agriculture observed that the original forage had been severely depleted, between 51% and 71% of the virgin growth having been permanently destroyed by over grazing. Assuming that the average depletion rate had been 65%, Mr. McDowell calculated that the maximum carrying capacity of the award area under virgin conditions had been 97,000 head of cattle. In estimating the cattle carrying capacity of the rangelands of the award area, Mr. McDowell considered that the animal unit carrying capacity ranged from 35 acres per cattle unit yearlong to 65 acres per animal unit yearlong and concluded that the average animal unit carrying capacity for the 5,855,175 acres considered as rangelands was 59.2 acres per animal unit yearlong.

Three sales of comparable rangeland in nearby areas were considered by Mr. McDowell in evaluating the rangelands of the award area. A fourth sale by the Central Pacific Railroad in 1885 was discussed by Mr. McDowell,

but the sale was not considered comparable because the land had a better cattle carrying capacity than the award area, the soil was of a better quality, there was more available ground water and the land was close to the railroad. The sale was made in 1885 and involved 352,641.15 acres for a consideration which averaged 78 cents an acre. Based on cattle carrying capacities, the land was about 40% better than the subject area, which would indicate a value of 55 cents per acre for the Goshute tract.

The first comparable sale which Mr. McDowell considered was of Baca Float No. 4, a 100,000 acre Spanish land grant located in the San Luis Valley of Colorado. The area is situated approximately 7,500 feet above sea level at its lowest point and ranges to a height of 11,000 feet above sea level. Numerous streams run throughout the area. The average annual precipitation is between 15 and 20 inches. The short grass native vegetation used as forage under virgin conditions had a cattle carrying capacity of 25 acres per animal unit yearlong. In 1877 these rangelands were sold by Wilson Waddingham to William Gilpin for \$52,187.98, approximately 52 cents per acre.^{3/}

Mr. McDowell next considered the sale of Baca Float No. 5, another 99,289.99 acre Spanish land grant located in Yavapai County, Arizona. This tract is approximately 32 miles northwest of Prescott, Arizona,

^{3/} There was an earlier sale, in 1870, for an average consideration of 40 cents per acre, but it was not considered by Mr. McDowell in his comparable sales analysis.

and is situated on a high plateau east of the Juniper Mountains. At its lowest point, the land is 5,000 feet above sea level and rises to 6,800 feet above sea level. The vegetation growing on the land is a juniper pinion woodland type, and under virgin conditions the cattle carrying capacity of the rangelands was 43.2 acres per animal unit yearlong. The land was sold in 1874 by William Wardwell to Atwater Wardwell for \$50,000.00, an average price of 50.3 cents per acre.^{4/}

The sale by the Atlantic Pacific Railroad to the Aztec Land and Cattle Company was also considered comparable. The tract included 1,058,560 acres of land which it had been granted in checkerboard pattern, i.e., the grant was of alternate sections of land in strips on each side of the railroad's right of way. The land is located on the drainage of the Little Colorado River at an elevation ranging from 5,000 to 7,000 feet above sea level. Precipitation in the area varies from 10 to 15 inches annually, and the native vegetation is semidesert grass. Under virgin conditions, the cattle carrying capacity was estimated by Mr. McDowell to have been 34 acres per animal unit yearlong. The land sold in 1884 for \$500,000, about 50 cents per acre. Although some of the railroad's directors were also stockholders of the corporate purchaser, Mr. McDowell considered the transaction to have been an arms-length sale.

Mr. McDowell estimated that the average cattle carrying capacity of the three comparable sale properties was roughly 40 acres per animal

^{4/} There was also a sale on April 25, 1872, for an average consideration of 30.2 cents per acre, but Mr. McDowell did not use it in his comparable sales analysis.

unit yearlong. Assuming that the maximum cattle carrying capacity of the rangelands of the award area was 59.2 acres per animal unit yearlong, Mr. McDowell calculated that the ratio of the cattle carrying capacity of the comparable sales to the land in the award area was $\frac{40}{59.2}$ or 67.6%. Using this factor to relate the comparable sales to the subject area, Mr. McDowell computed an indicated market value of 35 cents per acre or a total of \$2,011,450.00 for the rangelands in the Goshute tract.

Mr. McDowell also valued the rangelands of the award area by estimating the amount of money a hypothetical buyer would have paid for forage for each animal unit. Since the capability of land to produce forage is directly related to the income potential of the land, Mr. McDowell asserted that rangelands could be evaluated by multiplying the maximum number of cattle which may be grazed on the forage without depletion by the per acre value of the forage, the so-called cattle unit multiplier. In this appraisal method the value of the forage located on the award area was determined by comparing the cost of forage per animal unit on the lands involved in the three comparable sales. The forage cost was obtained by dividing the sales prices of the comparable properties by the maximum number of cattle grazed upon the land at the time of sale. Those figures were:

<u>Sales</u>	<u>Cost per animal unit</u>
Baca Float No. 4	\$12.00 (1870)
" " "	15.60 (1877)
Baca Float No. 5	12.90 (1872)
" " "	21.50 (1874)

<u>Sales</u>	<u>Cost per animal unit</u>
Aztec Land and Cattle Co.	\$20.00 (1875)
Central Pacific Railroad	26.52 ^{5/} (1885)

Using \$21.00 as the cost of forage per animal unit, Mr. McDowell multiplied that figure by the 97,000 head of cattle which he calculated could have been carried on the Goshute tract. The resulting sum of \$2,037,000.00 represented his calculation of the fair market value for the rangelands.

Finally, Mr. McDowell evaluated the rangelands by capitalizing the estimated net earnings which might have been derived by leasing the land. Numerous leases of rangelands were studied and the leased lands were compared to the rangelands of the award area on the basis of cattle carrying capacity. The research showed that lease rates ranged from 1/2 cent to 5 cents per acre. Mr. McDowell considered that land leased by Preston Nutter from the Bureau of Indian Affairs was the most comparable to the rangelands of the award area. The Nutter lease involved 665,000 acres of Indian land in the vicinity of the award area. The lease, executed in 1893, was for a term of 5 years for a rental of \$7,100.00, slightly over 1 cent per acre. The land was located on the Duchesne River drainage and had a cattle carrying capacity of 66.5 acres per animal unit yearlong. Considering the size of the award area and the fact that the Nutter lease was 15 years after the valuation date, Mr. McDowell concluded that the fair rental value of the rangelands of the Goshute

^{5/} This figure was reduced by Mr. McDowell to \$20.00 to account for the time difference and the fact that this sale provided for payment over a ten year period.

tract would have been one cent per acre. On the basis of sales of state lands which had previously been leased, he estimated that a capitalization rate of 3% should be applied. This resulted in an indicated value of \$1,896,510.00 or about 33 cents per acre.

b. Appraisal of the Timberland

Mr. McDowell believed that the timber located upon the Goshute tract was of poor quality and was scattered throughout the area. Therefore he concluded that a commercial lumber operation would not have been financially successful. However, the timber was used for building and for charcoal used in mineral smelting. Ranchers in the award area also used the timbered areas as summer pastures for their cattle. In 1888 the Atlantic-Pacific Railroad sold timber only on 120,000 acres for 16.7 cents per acre. Accordingly, Mr. McDowell concluded that the timberlands had a dual use, and he evaluated these lands as rangelands with an added enhancement of 15 cents per acre for the timber.

c. Appraisal of the Tillable Land

In evaluating the tillable land, Mr. McDowell studied sales of smaller tracts in Tooele, Rush and Skull Valleys in Tooele County, Utah, and sales occurring in Humboldt, LeMoile, Secret, Clover and Ruby Valleys in Elko County, Nevada. Mr. McDowell concluded that the soils of the tillable lands located in the Utah portion of the award area were of a higher quality than the soils of the tillable lands found in the Nevada portion of the award area. Consequently, the lands in Utah were more valuable at the valuation date. Since many of the sales included some type of improvement, Mr. McDowell reduced the sales prices of the

comparable lands to reflect the value of these improvements. The sales prices of other lands which include water rights for irrigation were also discounted to reflect this value enhancement.

A total of 85 sales of tillable lands located in the valleys of Nevada were studied by Mr. McDowell. Those sales, made between 1873 and 1877, encompassed 41,581.97 acres and sold for an average price of \$2.41 per acre. Since the comparable sales were of higher quality land, were closer to transportation facilities, and had better access to irrigation water, he reduced the sales prices by 25% to reflect these superior factors. Mr. McDowell further discounted the average sales prices by 40% for size. Thus he concluded that the fair market value of the tillable lands within the Nevada portion of the Goshute tract was \$33,480.00, approximately \$1.08 per acre.

A total of 79 sales of land in the vicinity of the Utah portion of the award area were considered comparable by Mr. McDowell. The sales occurred between 1871 and 1880. A total of 4,711.46 acres were sold for \$20,596.95, indicating an average sales price of \$4.37 per acre. He reduced this figure by 40% to reflect a size discount and arrived at a value of \$115,280.00, or about \$2.62 per acre, for the tillable lands in the Utah portion of the award area.

d. Appraisal of Townsites

Mr. McDowell considered that two townsites, covering 1800 acres, would have been sufficient to service the miners and ranchers who inhabited the Goshute tract at the valuation date. He studied 26 sales of urban lands ranging in price from \$50 to \$500 and occurring between 1871 and 1879.

After reducing the average per acre price of \$185 by 40% to reflect a size discount, Mr. McDowell concluded that the 1875 fair market value of the urban townsite land within the Goshute tract at the date of valuation was \$199,800, or about \$111 per acre.

e. Conclusions of Defendant's Surface Appraiser

Mr. McDowell reviewed the results of the appraisal methods which he used for the rangelands and rounded off the figures for the other categories of land, concluding in summary that the fair market value of the surface lands within the Goshute tract as of January 1, 1875, was as follows:

Rangelands (including forested lands):	
5,747,000 acres	\$2,150,000
Tillable lands:	
75,000 acres	150,000
Urban lands:	
1,800 acres	<u>200,000</u>
Total Surface Value	\$2,500,000

42. Commission Conclusions on Surface Value of Goshute Tract

On the basis of all the evidence in the record and the findings herein, and for the reasons set forth in our opinion, we conclude that as of January 1, 1875, the surface of the lands in the Goshute tract, the highest and best use for which was grazing, farming, and townsite purposes, had the following fair market values:

<u>Use</u>	<u>Acreage</u>	<u>Value</u>
Grazing	5,462,003.65	\$2,500,000.00
Timbered grazing	250,000	150,000.00
Agricultural	100,000	400,000.00
Townsites	1,800	<u>200,000.00</u>
	Total	\$3,250,000.00
Mineral lands	<u>10,000</u>	
	Total	5,823,803.65

43. Minerals in the Goshute Tract

The first mineral discoveries within the award area appear to have been made accidentally. The leaders of the early Mormon settlers who inhabited the Goshute tract were opposed to mineral prospecting, but the Mormons established trading posts to service people traveling west. When the Comstock Lode was discovered in 1859, travel across the Goshute tract increased. Silver ore was discovered in the area in 1863 near the overland stage route.

In 1862, at the outbreak of the Civil War, General E. Patrick Conner and the California Volunteers were dispatched to Utah to guard the overland routes and telegraph lines. General Conner encouraged his troops to search for minerals during their off-duty hours since many of the troops had prospected for gold in California. To publicize their mineral discoveries and promote investment, General Conner began printing a newspaper, The Union Vedette.

The first mineral district established in Utah in 1863, was the West Mountain or Bingham District which included part of Tooele County in the

Goshute tract. However, mineral exploitation was retarded both because of inadequate transportation and because of the high costs of refining silver ore. Completion of the transcontinental railroad in 1869 provided a means of transporting silver ore to smelting plants in Baltimore and San Francisco. After 1869, regular shipments of silver ore were hauled by railroad in amounts totaling four to six tons weekly.

The discovery and widespread use of the Washoe smelting process reduced the costs of silver production and increased interest in the development of silver mining. By 1871, eighteen smelters were located in the Salt Lake Valley within and adjoining the subject tract.

At the end of 1875, ore worth \$21,000,000.00 had been mined in Utah, and by 1880, the total mineral production exceeded \$45,000,000.00. Silver and lead were the chief ores mined within the Goshute tract. But the existence of gold and copper was also known at the time of valuation. Salt was mined in the award area for human consumption and for use in silver smelting.

44. Development of the Rush Valley and Ophir Mining Districts

The two most important mining districts in the Utah portion of the Goshute tract were the Rush Valley and Ophir Districts in Tooele County. They were formed June 12, 1864, and August 6, 1870, respectively. Originally both districts were part of the West Mountain (Bingham) District.

The Rush Valley District was discovered and organized by soldiers during the Civil War, but mining was suspended after the war. The

departure of the soldiers impeded development of the Rush Valley District, because bylaws of the early mining district, established by the soldiers, authorized the granting of a fee title interest to a miner who erected a monument and completed 3 cents of work for each linear foot of the claim. Thus, many legal problems arose in determining ownership of mining claims. In 1866, Congress confirmed the laws and customs of the miners; and the rights of the soldier-miners were reinforced. Thus, the mines first worked by the soldiers could not be developed fully until the first owners returned or sold their interests to corporate developers.

The Ophir District is situated on the west side of the Oquirrh Mountains. The first reported mining discovery was the St. Louis Lode located July 28, 1864. However significant mining activity did not begin until April 1870, when new discoveries brought other prospectors into the district. Activity within the Ophir District during the early years may be observed by the number of claims recorded between 1870 and 1874:

<u>Year</u>	<u>Number of Locations</u>
1870	453
1871	732
1872	320
1873	138
1874	114

Mineral production for the Ophir and Rush Valley Districts was recorded together and during the period from 1870 through 1880 the amount of production was:

<u>Gold</u>	<u>Silver</u>	<u>Lead</u>	<u>Total</u>
\$257,080	\$4,798,719	\$4,335,597	\$9,391,396

45. Development of the Cherry Creek Mining District

The most important mining district in the Nevada portion of the subject area was the Cherry Creek District, situated on the eastern slope of the Egan Mountains about five miles north of Egan Canyon in White Pine County. Originally the Cherry Creek District was separated into two mining districts. The major silver mine located in the Egan Canyon area was the Gilligan mine, located February 25, 1864. Most mining activity in the Egan Canyon area occurred prior to the valuation date.

Initial development of the Cherry Creek portion of the district began in 1872, when the Teacup mine was discovered. The entire district developed slowly and consistently thereafter. The growth of the town of Cherry Creek is indicative of the growth of the mining district. When the mining district was first organized, the white population of the town of Cherry Creek was estimated to be 100 persons. At the peak mining period, in 1883, the white population of Cherry Creek was 6,000 persons.

The Teacup mine was discovered on September 21, 1872, about 2 1/2 miles northwest of the town of Cherry Creek. In his 1874 report, Mr. Raymond stated that the mine shaft was dug 120 feet deep and about 100 tons of silver ore were on the dump near the entrance of the mine. He estimated that the average assay of the silver ore was \$75 per ton. (Statistics of Mines and Mining, in States and Territories West of the Rocky Mountains, Washington, 1874, p. 229, Plaintiff's Exhibit No. F-5, p. 79.) Production of silver ore in the Teacup mine was recorded through 1881, but the peak period of production occurred during the early years.

The Exchequer mine was a 1,500 foot location situated on the lower mineral belt of the Cherry Creek District. Mining activity began in August 1873, when an 18-foot shaft was sunk. The average assay of the first 15 tons of silver ore extracted was \$300 per ton. Mr. Raymond stated in his 1874 report that the Exchequer mine was sold to A. H. Hagadorn and some other investors who erected a 5-stamp mill. (Id. at 228, Plaintiff's Exhibit No. F-5, p. 78.) The average assay of the ore refined was \$250 per ton, and approximately 50% of the silver was recovered from the ore in the milling process. The Cherry Creek Company purchased the Exchequer mine thereafter, and the mill crushed and refined seven tons of ore daily. In 1875 water was encountered, and it filled the shaft. Pumping equipment was installed, and thereafter mineral production was reported until the 1880's.

The Star mine was located on a 1,500 foot mineral belt in August 1873. It was about one-fourth mile from the Exchequer mine and on the same ridge. The silver ore was easily accessible. The Star mine was developed quite rapidly and within a short time was considered the principal mine of the Cherry Creek District. Mr. Raymond stated in his 1875 report that the net value of silver ore produced during December 1874 was \$60,000. He further reported that between 10 and 15 tons of ore were extracted from the mine daily and that it had a pulp assay of between \$100 and \$200 per ton.

(Statistics on Mines and Mining, in States and Territories West of the Rocky Mountains, Washington, 1875, p. 276, Plaintiff's Exhibit No. F-5, p. 88.) In 1881 the Star mine had a 400 foot tunnel and was still being mined at a depth of 520 feet.

The total mineral production within the Cherry Creek District during

the early period of development is unknown. During the 1880's, two fires destroyed the early records filed in Hamilton, Nevada, the original county seat of White Pine County. The appraisers in this case used state and federal records and the writings of geologists and mineralogists to estimate the total production. However, James M. Hill, an employee of the U.S. Geological Survey, stated that "estimates [of total mineral production] range from \$6 million to a high of \$20 million" from 1872 through 1883. Notes on Some Mining Districts in Eastern Nevada, U.S. Geological Survey Bulletin No. 648. (Plaintiff's Exhibit No. F-8, p. 39.) F.C. Schrader stated in 1931 that the three major mines located within the Cherry Creek District, the Star, Teacup, and Exchequer mines, produced a total of \$12 million in minerals during these years. Spruce Mountain District, Elko County and Cherry Creek (Egan Canyon) District, White Pine County, Nevada Nevada State Bureau of Mines Bulletin No. 7. (Plaintiff's Exhibit No. F-1, Vol. 11, pp. 354-58.) A low estimate of the total was made by Jay A. Carpenter, Director, and Bertrand F. Couch, Secretary of the Nevada Bureau of Mines in 1943. Couch and Carpenter maintained that the total mineral production within the Cherry Creek District was \$4 million during the period from 1870 to 1880, Nevada's Mineral and Metal Production 1859-1940 Inclusive, University of Nevada Bulletin No. 38, Geology and Mining Series. (Plaintiff's Exhibit No. F-11, pp. 146-150.) The Couch and Carpenter estimate was based upon bullion records filed in the County Assessor's office, and neither party in this case relies upon their estimate of total production.

46. The Mineral Valuation Methods Used By The Parties

The plaintiff's mineral appraiser, Roy P. Full, is a consulting geologist in Salt Lake City, Utah. He has had a wide experience in the

appraisal of mineral lands and has testified before this Commission previously. The defendant's mineral appraiser, Ernest Oberbillig, is a mining and metallurgical engineer in Boise, Idaho. He also has had a wide experience in the appraisal of mineral lands and has testified before this Commission in a number of previous cases.

Mr. Full considered each mining district in the subject area and based his value conclusions primarily upon a determination of the anticipated profits which a prospective purchaser would have envisioned for those districts in 1875. This appraisal method considered the following factors: (1) the amount and grade of ore which reasonably could have been expected from the area; (2) the daily and annual rate of efficient mineral exploitation; (3) the pre-production costs which included development, mill construction and the installation of surface and underground mining support materials; and (4) operating costs which included mining, milling and marketing.

Mr. Oberbillig studied and analyzed sales of interests in mining properties to evaluate each mining district, except those in White Pine County where no sales data were available. He valued the Cherry Creek District by capitalizing an assumed 10% royalty on estimated production. He valued the Ely District on the basis of the mineral deposits which were known in 1875.

Mr. Full determined that the total value of the mineral districts within the award area was \$3,157,108.00, while Mr. Oberbillig concluded that the total value of these districts was \$1,962,153.00. With the exception of the Cherry Creek District, there are no significant differences

between the appraisals of the experts. The components of the respective valuations are as follows:

<u>District</u>	<u>Oberbillig</u>	<u>Full</u>
Utah		
Rush Valley	\$ 243,625	\$ 314,240
Ophir	911,245	870,762
Camp Floyd	150,000	57,840
Clifton	78,038	50,000
Dugway	-0-	15,000
Columbia	153,140	-0-
Salt Marsh Lake	-0-	29,906
Nevada		
Elko County	-0-	25,000
Cherry Creek	200,000	1,744,360
Ely	50,000	25,000
Schellbourne	-0-	-0-
Other White Pine Districts	-0-	25,000
Minor claims and areas not given a specific value	176,105	-0-
TOTAL	\$1,962,153	\$3,157,108

47. Appraisal of the Cherry Creek District.

Mr. Oberbillig, using a capitalized royalty appraisal method to evaluate the Cherry Creek District, assumed that the total production of the district would be \$500,000.00 annually. He applied a 10% royalty rate and capitalized this amount by 25% in perpetuity to compute an 1875 fair market value of \$200,000.00 for the Cherry Creek District.

Mr. Full determined that an 1875 estimate of the average annual production of silver ore within the Cherry Creek District would have

been \$900,000.00 with an expected five year life for the operation. His estimates of the production schedule and costs were:

Daily production	40 tons
Annual production (300 days)	12,000 tons
Average yield	\$75 per ton
Annual yield	\$900,000
Average cost of production	\$25 per ton
Annual cost of production	\$300,000
Annual operating profit	\$600,000
Expected life of operation	5 years
Pre-production cost	\$ 50,000

Having calculated the annual operating profit for an estimated five years, Mr. Full evaluated the district by multiplying the annual income estimate by a 20% discount factor and deducting pre-production costs as follows:

Annual income	\$ 600,000
Discount factor	<u>2.9906</u>
Value before pre-production costs	\$1,794,360
Pre-production costs	<u>50,000</u>
<u>1875 Fair Market Value</u>	\$1,744,360

48. Commission's Evaluation of Cherry Creek District

The Commission finds that the production estimates of Mr. Full are supported by the evidence. We believe that in 1875 a prospective purchaser would have been justified in projecting an annual production of \$900,000.00 for the next five years. We do not consider that defendant's projection of \$500,000.00 yearly production for all the ensuing years would have been realistic. Mr. Oberbillig's 10% royalty figure is too low.

Mr. Full's computations have, however, assumed the most favorable outlook. He has not adequately provided for a discount for the hazards of the mining operation or unforeseen events which might adversely affect his estimates.^{6/} Mr. Full has used a straight 20% compound interest factor (Inwood valuation premise) to discount the estimated future profits to an 1875 value. This is a very liberal percentage factor, equal to a Hoskold formula double rate factor of less than 15% on the investment, with 3% on redemption of capital.

The Commission has computed a value for the Cherry Creek District using the Hoskold formula. Taking all of Mr. Full's estimates as to production and costs and using the factor for a 20% return on the investment and 3% on the redemption of capital, the resulting fair market value would be \$1,495,000.00. The Commission finds that this figure more fairly represents the 1875 fair market value for the Cherry Creek District.

49. Commission's Conclusion on Mineral Value

We find that Mr. Full's basic data for each of the mining districts is supported by the evidence. However, as in the case of the Cherry Creek District, the estimates which he has made are optimistic, and his

^{6/} For example, Mr. Full's report indicates that the Exchequer mine in the Cherry Creek District struck water in the shaft in 1875, and pumping works had to be installed. A report in 1874 also indicated that work on one ledge had been discontinued because of the low grade ore. Bad air in a tunnel also restricted work in the mine. In 1874 it was reported that bad weather was restricting the mill which was working ore from the Teacup mine.

appraisal does not make adequate provision for the hazards of mining operations in 1875. In those four other districts for which Mr. Full used a compound interest factor to arrive at his value conclusion, we have recomputed the calculations using the Hoskold formula. We have made no adjustment for the five remaining districts which were not valued by means of a discounting of future profits. Using Mr. Full's production and cost figures, but substituting the Hoskold formula factor, plaintiff's total mineral valuation would be as follows:

<u>County and District</u>	
<u>Utah</u>	
<u>Tooele County</u>	
Camp Floyd District	\$ 48,462.00
Clifton District	50,000.00
Dugway District	15,000.00
Ophir District	754,175.00
Rush Valley District	266,735.00
<u>Millard County</u>	
Salt Marsh Lake Area	25,750.00
<u>Nevada</u>	
<u>Elko County</u>	25,000.00
<u>White Pine County</u>	
Cherry Creek District	1,495,000.00
Robinson District	25,000.00
Schell Creek Range	<u>25,000.00</u>
TOTAL	\$2,730,122.00

As adjusted the above amounts represent the estimated values which a reasonably prudent prospective purchaser would have made for each of the mining districts listed. We find that the January 1, 1875,

fair market value of the minerals in the Goshute tract was \$2,730,122.00.

50. Minerals Removed from the Goshute Tract before January 1, 1875

Following the treaty with the Goshutes in 1863, and before the January 1, 1875, valuation date, many areas within the Goshute tract were prospected and mined and valuable minerals were removed. Some of the mines, such as the Mono in the Ophir District, had realized a substantial portion of their mineral production before the valuation date.

Mr. Full, for the plaintiff, has estimated that minerals with a gross value of \$6,365,000.00 were produced within the Goshute tract prior to 1875. The defendant has made no estimate of the pre-1875 mineral production.

51. Gross Production before 1875

The greatest amount of mineral production before 1875 occurred in the Ophir District. After 1870, production for the Ophir and Rush Valley Districts was reported together. The total for the two districts for the period from 1870 to 1880 was reported to have been \$9,382,396.00. Of this total Mr. Full considered that about \$7,500,000.00 was from the Ophir District, leaving \$1,882,396.00 as the output from the Rush Valley District. Mr. Full estimated the gross value of the production from the more prominent mines in the Ophir District, prior to January 1, 1875, as follows:

<u>Mine</u>	<u>Total Value</u>
Chicago	\$ 440,000
Chloride Point	200,000
Cliff	25,000
Deseret	10,000
Flavilla and Queen of the Hills	500,000
Hidden Treasure	1,111,300
Kearsarge	400,000
Miner's Delight	25,000
Mono	1,000,000
Mountain Lion	60,000
Mount Savage	50,000
Mount Tiger	<u>600,000</u>
Total	\$4,421,300

In addition there were some minerals removed from smaller mining properties in the district. Mr. Full has estimated that a total of \$4,500,000.00 worth of minerals were removed from the Ophir District prior to 1875. His estimate for the Rush Valley District was \$500,000.00.

After a detailed examination of available production records and data pertaining to individual mines as well as each mining district, Mr. Full concluded that the following amounts represent the gross value of all minerals removed from the Goshute tract before 1875:

Tooele County, Utah

Camp Floyd District	\$ 225,000
Clifton District	60,000
Ophir District	4,500,000
Rush Valley District	500,000
Tooele District	5,000

Millard County, Utah

Salt Marsh Lake	45,000
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White Pine County, Nevada

Cherry Creek District	200,000
Robinson District	30,000
Schell Creek District	<u>800,000</u>
<u>Total Pre-1875 Mineral Production</u>	\$6,365,000

Mr. Full's estimates are supported by the evidence, and, accordingly, the Commission finds that the gross value of the minerals removed from the subject area prior to January 1, 1875, was \$6,365,000.00

52. Profits Due Owner for Pre-evaluation Date Production

A royalty on the gross production is a proper means for calculating the profit which would be due an owner for minerals removed from his land. Plaintiff contends a 40 per cent royalty (\$2,546,000.00) would represent the owner's interest in minerals removed prior to January 1, 1875. In support of this figure plaintiff relies on Mr. Full's statement that ". . . the average net profit resulting from the production prior to 1875 was a minimum of 40 per cent of the gross product from all of the districts, amounting to \$2,546,000.00." Appraisal Report, Roy P. Full, Plaintiff's Exhibit F-1, Vol. 1, p. 245.

The evidence does not support a conclusion that a 40 per cent royalty on gross production would be proper basis upon which to compute a land owner's share of minerals removed. It is true that much of the higher grade ore was mined during the pre-1875 period. But there were also expenses and greater risks involved in the initial stages of the mining operations in this area.

The Commission finds that a 20 per cent royalty on the gross value of minerals produced from the Goshute tract is an appropriate measure of an owner's net profit on ore mined before 1875. This would result in a figure of \$1,273,000.00.

53. Defendant's Liability for Minerals Removed before 1875

The removal of minerals from the Goshute tract was accomplished with the approval of the United States following the 1863 Treaty, supra, which the United States entered into with the Goshute. That treaty provided for a total payment to the Indians of \$20,000.00 as consideration for the rights and privileges conceded under the treaty. The Commission finds that the removal of minerals, the owner's share of profit from which is valued at \$1,273,000.00, following an agreement which provided a consideration of only \$20,000.00, was unfair and dishonorable. Therefore the defendant is liable under Clause 5, Section 2 of the Indian Claims Commission Act, supra, for the sum of \$1,273,000.00, representing the profit due the owner from minerals removed prior to January 1, 1875. This amount is subject to deductions for payments which defendant may prove were made under the 1863 Treaty.

Conclusions

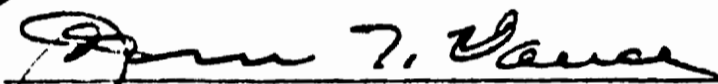
54. Value of Goshute Tract on January 1, 1875

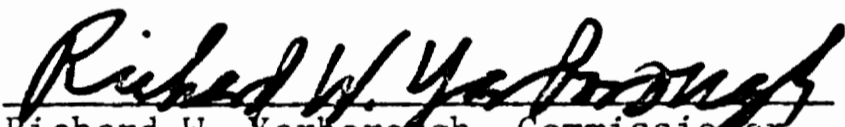
Upon consideration of all the evidence of record and the primary findings herein, the Commission finds that on January 1, 1875, the fair market value of the Goshute tract was \$5,980,122.00, and the plaintiff is entitled to recover this sum under Clause 4, Section 2 of the Indian Claims Commission Act, supra.

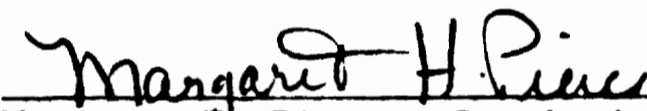
55. Value of Minerals Removed from the Goshute Tract Prior to January 1, 1875

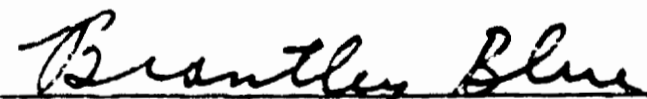
Upon consideration of all the evidence of record and the primary findings herein, the Commission finds that the owner's profits from minerals mined from the Goshute tract before the January 1, 1875, valuation date were worth \$1,273,000.00, and the plaintiff is entitled to recover this sum under Clause 5, Section 2 of the Indian Claims Commission Act, supra.


Jerome K. Kuykendall, Chairman


John T. Vance, Commissioner


Richard W. Yarborough, Commissioner


Margaret H. Pierce, Commissioner


Brantley Blue, Commissioner