REPORT
on the property of
The Wootton Land and Fuel Company
Located in
Las Animas County, Colorado
and
Colfax County, New Mexico
By PAUL BLOUNT, Mining Engineer
REPORT
on the property of

The Wootton Land and Fuel Company

Located in

Las Animas County, Colorado

and

Colfax County, New Mexico

By PAUL BLOUNT, Mining Engineer

Mr. Herbert L. Satterlee,
14 Wall St.,
New York City.

Dear Sir:

Herewith I hand report on the conditions and operations of The Wootton Land Fuel Company. This report is made after a thorough examination of the property and a study of the markets and other conditions which influence the successful operation of the property.

The information as to the costs, sales, production, title to the property and other matters of record in the office, was furnished by Mr. John E. Geijsbeek, who has just completed a thorough and comprehensive examination of the books and analysis of the accounts.

In this connection I wish to acknowledge the uniform courtesy of Col. J. A. Owenby. At all times he furnished us with every facility and rendered such assistance as was possible in making the examination. His efforts, together with those of his subordinates, aided us materially in the prosecution of the work.

Respectfully Submitted,

[Signature]

Paul Blount
Mining Engineer.
The property of THE WOOTTON LAND AND FUEL COMPANY consists of 5,176.72 acres of land in Colorado, to which the Company has full title, and 2,102.6 acres, the title to which is in dispute. In New Mexico the Company owns the surface rights to 5,441.2 acres and claims title to 414.6 acres additional, the title to which is doubtful. The attached map also shows two tracts containing 251.3 acres to which the Company has no title.

In the case of John M. Johns against the Company contesting the title to 1,212.8 acres of the Colorado land, the case was decided in favor of Johns in the District Court and the case was appealed to the Supreme Court. The surface rights only are owned on this land.

Since the acquisition of the property by the Company, about eight years ago, it has been utilized as a stock ranch and an effort was made to develop the coal resources on the Colorado land. Both the coal and stock business have been carried on
under one management.

THE STOCK RANCH

This property is particularly well located for stock raising. It is well watered by springs and small streams. The various gulches and canons afford excellent shelter from the winter storms. Feed grows luxuriantly. The winters are comparatively mild and very little feeding is required. Such portions of the ranch as are susceptible of cultivation produce excellent hay and vegetables. About 500 acres can be cultivated to advantage.

IMPROVEMENTS

The entire tract is fenced and divided into pastures, permitting the stock to be separated when it seems advantageous to do so. The fences generally are not on the lines of the Company's property and more land is included than the Company owns. The fences, corrals, sheds, etc. are in as good repair as ordinarily found on a stock ranch.

The main ranch house is a commodious adobe building, well built and finely furnished. It contains ten rooms, three bath rooms, two cellars, one vegetable cellar and one wine cellar, and other conveniences usually found in a well appointed house.
The stable at the home ranch is a comfortable adobe building containing harness and grain rooms, some box stalls and accommodations for about twelve head of horses. Adjoining are implement sheds, cattle sheds, corrals and outbuildings sufficient for the handling of the business of the ranch. Other corrals are located at convenient points on the property for use in gathering and handling the stock. The home ranch is located in the Northwest corner of the property on the bank of North Raton Creek.

In addition to the buildings necessary for conducting the stock business there is located about 100 feet from the house, a substantial concrete building containing a well appointed Turkish Bath. Extensive dog kennels are located near the stables.

EQUIPMENT

On the ranch are found the necessary farm tools for cultivating such land as is utilized and for harvesting such crops as are raised. In addition to the ordinary farm equipment, the carriage house contains a large, well built hunting coach. This vehicle shows no signs of usage and has been used very little, if at all.

WATER RIGHTS

No water rights of any kind have been secured for use on the ranch. While the fact that it has been used to some extent would give some title to the water, steps should
taken at once to secure a legal title to as much water as necessary for use on the ranch. Water is very scarce in this part of the state and the ownership of a good right is a valuable asset.

**STOCK**

**Cattle**

I was informed that at present there are about 207 head of cattle on the ranch, valued at about $10,079; also that during the past year about 1,000 head of cattle have been sold, bringing approximately $40,000. The cattle are a fairly good grade, nearly all being graded Herefords, and will compare favorably with the average herds found in that section of the state. The young stock has been culled out, considerably reducing the value of the herd.

The cattle are in fair condition and will winter well with little or no feeding.

**Hogs**

They report about 80 hogs on the property. These are scattered over the entire ranch and get their subsistence around the camp and from acorns and roots in the hills. They are of an inferior grade and with the exception of a few kept around the home ranch, receive no attention. Their condition shows the lack of care and feed. They are fattened as needed and butchered for use at the mine store.
Horses
There are 24 head of horses on the ranch, valued at $1825.00. The horses are medium size and those in use are in good condition. There are just sufficient horses to properly equip a ranch of this size.

Mules
There are 33 mules on the place, valued at $3300.00. The majority of these are used in the mine when it is working. Those around the stables are a good grade and in good condition. Those not in use are in the pasture and were not seen.

Powls
There are a considerable number of chickens and turkeys on the ranch, but owing to the lack or care, are a source of expense rather than profit.

Dogs
The ranch also supports about 30 dogs, at an expense of about $35.00 per month. These dogs are chiefly blood hounds and grey hounds, and are used only in an occasional coyote hunt.

PRODUCTS
The principal products are hay and vegetables. It would seem, that with proper care and attention, much better results could be obtained from the cultivation of this land. Enough feed for use on the ranch should be raised and the necessity of buying hay, except on extraordinary occasions, should be avoided.

SUMMARY
The ranch has all the natural advantages of a good
stock ranch, but the investment in buildings and equipment is much larger than the business will justify. Too much attention has been given to the show rather than the utility features. The conduct of the ranch business is needlessly expensive. With careful and proper management the place should pay a fair dividend on a ranch investment.

**MINES**

Two coal mines have been opened on this property. Each mine consists of two openings, separate and distinct from each other, and each constituting a complete mine, but the tracks join outside and one tipple is used for each pair of mines.

The first mine is known as Wootton No. 1 and No. 2 and the second as Turner No. 1 and No. 2. The first is located on North Raton Creek at the point where the outcrop of the Wootton vein crosses the creek. The Wootton No. 1 opening is a drift, on the east side of the creek, passing under the tracks of the A. T. & S. F. R. R., and opening the country east and south of the opening. The Wootton No. 2 is on the west side of the Creek nearly opposite No. 1. After getting well under cover the main entry turns south running nearly parallel to the Creek.

The second mine is located in Turner Gulch near the north boundary of the property. The Turner No. 1 is on the north side of the gulch and No. 2 opens the land on the south side of the gulch.
The main entry of this mine is driven on a level. Its course is a little south of east. The first development of the coal was on the south side of the main entry. Cross entries were driven and rooms were turned and considerable coal extracted. Before the coal was entirely recovered one section of this territory was lost by a squeeze and the balance by falls of rock and shale. The squeeze was probably caused by attempting to draw the pillars. The heavy sandstone a few feet above the coal refused to break when the support of the pillars was withdrawn and the result was a squeeze which effectually closed that part of the mine. The falls of rock and shale which closed the other block was caused by lack of care in protecting that portion of the mine.

The vein averages a little more than four feet in thickness. There are three partings of bone and shale in the coal, of varying thickness, sometimes being four inches in thickness. These partings are generally quite regular in thickness and in their position in the vein. The impurities stick fast to the coal and it is almost impossible to clean the product of the mine. There is more or less coal mixed with this bone and shale and it is consumed with the coal but it produces an excessive amount of ash and detracts from the heating power of the coal. The pure coal, when carefully separated from these impurities, is free burning and an excellent heat producer. When carefully cleaned, there is no
better coal in the Trinidad district. It is superior, as a domestic coal, to the majority of the coal in the district, and makes as good coke as any now used for that purpose. The quality of the coke would be greatly improved by washing the coal and thus reducing the percentage of ash in the product. The greatest objection to the coal is that it is impossible to get a reasonable percentage of lump coal. It has a distinct cubical cleavage but the cleavage lines are so close together that even with the most careful handling it is impossible to produce much but the smallest sizes of coal.

The following analysis of the coal, made by Von Schulz & Low, show that the quality of the coal is equal to any produced in the Trinidad District. The samples were carefully taken and are a very fair average of the coal produced.

<table>
<thead>
<tr>
<th>Coal as Received.</th>
<th>Wootton.</th>
<th>Turner.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moisture,</td>
<td>0.93 %</td>
<td>1.32 %</td>
</tr>
<tr>
<td>Volatile Matter,</td>
<td>32.57</td>
<td>26.86</td>
</tr>
<tr>
<td>Fixed Carbon,</td>
<td>48.18</td>
<td>58.25</td>
</tr>
<tr>
<td>Ash,</td>
<td>18.32</td>
<td>11.57</td>
</tr>
<tr>
<td></td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td>Sulphur,</td>
<td>0.95</td>
<td>0.62</td>
</tr>
<tr>
<td>B. T. U. per Pound.</td>
<td>11640</td>
<td>13110</td>
</tr>
</tbody>
</table>

Dry Coal.

| Volatile Matter, | 32.88   | 29.24  |
| Fixed Carbon     | 48.63   | 59.03  |
| Ash,             | 18.49   | 11.73  |
|                  | 100.00  | 100.00 |
This vein is very easily mined. No powder is used except in the narrow work and very little there. The greatest difficulty in mining is to hold the roof in place while the coal is being removed. It is necessary to use props every three feet in the rooms and cross bars over all entries and road ways in rooms. To get sufficient height on the roads it is necessary to take down from eighteen inches to two feet of shale. The shale is very soft and easily taken down. The most serious difficulty is encountered in the heavier and harder rock just above the shale. This is full of slips and pot holes and is very hard to hold. Frequently it falls to a height of six to eight feet above the coal. The removal of this large amount of waste from the mine and the necessity of using such a large amount of timber adds very materially to the cost of the production.

Very little water is encountered in the mine and no deleterious gasses have been found. The mine is comparatively free from dust.
The vein lies very uniform but rolls are frequently encountered. While these cause some expense and annoyance they would prove no serious detriment to the operation of the mine if other conditions were favorable.

The objections to the operation of the mine are, first, the extremely bad roof, making the cost of timbers excessive; second, the brittleness of the coal, making it almost impossible to produce the larger and more valuable commercial sizes; third, the cost of hauling out and disposing of the large amount of waste material which must be disposed of outside of the mine. These difficulties require the most careful and economical management to produce the coal with any margin of profit.

This mine is ventilated by a six foot fan, located near the entrance to the main entry. An air shaft is located 400 feet southeast of the main entrance from which the foul air escapes from the mine. The shaft is about 100 feet deep, well timbered and a substantial iron ladder is installed as an escape way in case of accident in the mine. An electric hoist, used in sinking the shaft, is still in place, and if properly maintained, can be used as an emergency hoist to comply with Section 93 of the State Mining Laws. The ventilation is good and pure air is found in all parts of the mine being operated.

The boiler which furnishes power to operate the fan, also furnishes power to a small pump located on the main
entry four hundred feet from the entrance. The pump is not operated steadily, as the mine makes very little water and a few hours pumping each day is sufficient.

An electric pump is located near the shaft, but it is not now in use, as that portion of the mine has been worked out.

The main roads are laid with 30# rail and 16# rail is used in the rooms and less important entries. The coal is collected with mules at a convenient point and then hauled to the tipple by an electric motor. The motor track is extended from time to time as the work progresses. The motor track is well lighted with electric lights. The arrangement of the pertings and underground tracks is very good.

WOOTTON NO. 2 MINE

The underground conditions in the Wootton No. 2 Mine are very similar to those in the No. 1 Mine. The coal contains a rather larger percentage of impurities than in the No. 1 Mine. The entries driven west from the main entry have crossed the boundary of the Company's property and considerable coal has been taken from the land of the Colorado Fuel and Iron Company. These workings have been abandoned and are inaccessible. The different maps on file do not correspond in detail so that it is impossible to determine the extent of this encroachment on other property. From what appears to be the most authentic maps and from information secured from other
sources it would appear that about 46,410 tons of coal have been taken out of the property of The Colorado Fuel and Iron Company.

There are a few thousand tons of coal in this mine which can be taken out very cheaply as the narrow work is all completed and the only expense would be to dig the coal and haul it out. This should be done as soon as possible and the track removed and mine abandoned. The mine is ventilated by a furnace. An electric pump is used for the removal of the little water which accumulates in the mine.

OUTSIDE CONDITIONS

The coal from the two mines is hauled to the same tipple. The tipple is located about 400 feet north of the mine entrance. It is a well constructed Jeffrey tipple with a capacity of about 1500 tons per day. The main fault with the tipple is that it is too high, giving the coal too much fall in reaching the cars and breaking it up badly. Shaking screens are installed to separate the coal into commercial sizes. A wire rope hauls the cars up an inclined plane from the motor track and takes the empty pit cars back to the mine entrance. The machinery on the tipple is all electrically operated. The tipple is a very complete structure and its operations are excellent in every way.

A 60 foot Howe track scale is located about 400 feet below the tipple upon which the loaded railroad cars are
weighed. The location of the scales is a serious mistake. There should be scales located on each loading track immediately under the tipple so that the empty cars could be weighed before loading and the loaded cars weighed as soon as filled. There is frequently a considerable difference between the actual and marked weight of cars and by weighing the empty cars disputes with customers over the weights of the coal is avoided. This arrangement of the scales would save a large amount of unnecessary switching of cars and frequent delays at the mine when it is running to its capacity.

A serious mistake was made in the location of the tipple. It should be located at least 300 feet farther from the mine. The motor tracks are so congested that it is impossible to handle a trip of cars quickly. The switching out of cars of waste consumes too much of the time of the motorman and seriously interferes with the operation of the shunting system. No adequate and cheap method of disposing of the waste material has been provided.

The railroad tracks leave the main line of the railroad at Wootton Station, paralleling the main line of the road to a point about one half of a mile below the mine where a switch back is used to reach the yards. The arrangement of the tracks is about as good as could be secured in the limited space although a few minor changes would add somewhat to their convenience. Had the tipple been located about 300 feet farther north
the general arrangements of the outside facilities for handling the coal would compare very favorably with the average mine.

**TURNER NO. 1 MINE**

The main entry to the Turner No. 1 Mine is driven nearly north. The entry is driven into the ridge between Turner Gulch and East Joe Creek. It can be driven less than 2,000 feet before coming out into the canon of the latter creek. The coal on the west side of the entry was worked out before the Company secured title to the property. The development work done by the present owners is entirely to the east of the main entry.

**TURNER NO. 2 MINE**

The main entry of the Turner No. 2 Mine is driven nearly east. Its location is such that it might be considered a cross entry of Mine No. 1, driven from the outside rather than turned from the main entry. The two mines can be easily and advantageously connected under ground. This mine develops the coal contained in a small ridge between Turner Gulch and a small branch of McBride Canon. The coal in this ridge, as far as the development has gone, is practically exhausted, there being only about 10,000 or 12,000 tons left in unfinished rooms, pillars and stumps. This coal can be easily and cheaply recovered.

The conditions in the two Turner Mines are identical and should the operations be continued they will soon be
connected and constitute one mine. The general conditions are very similar to those in the Wootton Mine. The vein is the same size and contains about the same impurities. The coal appears to be a little better grade than that produced at Wootton, and those using the two coals prefer the Turner. The difference in quality, however, is so slight that it will have no effect on its commercial value.

The roof is much better than in the Wootton Mine. After the shale, which is common to both, is taken down, a good, substantial roof is found, free from pot holes, which give so much trouble in the Wootton Mine. Very few timbers are required on the entries. Rolls occur rather more frequently than in the Wootton Mine.

Should these mines be further operated the main development will be to the east, gradually widening to the north and south as depth is attained.

Both mines are ventilated with furnaces and the circulation of air is good. The Turner No. 1 is equipped with an electric pump and a siphon is used in the No. 2 Mine. There is very little water found in either place. The waste material from both mines is dumped at the mine opening with very little expense.

When the Turner Mine was opened the coal was hauled one half way to the tipple with motors and then dropped to the tipple over an inclined plane. This plane was constructed
and equipped at an expense of more than $1,000.00, but owing
to its faulty construction it proved a failure and it was
abandoned and the money invested was a total loss. The
motor track was extended to the tipple but the grade used is so
heavy that it is difficult of operation. Some changes are
necessary on this track before a large tonnage can be handled.
The motor track is laid with 30# rail and is in fair condition.

The tipple was manufactured by the Jeffrey Company
and while not of the same design as the one at the Wootton Mine
is better adapted to this location. It is equipped with
shaking screens, electrically driven. It is open to the same
criticism as the Wootton tipple in that it is too high and gives
the coal too much fall into the railroad cars.

The railroad tracks are located on the west side of
the main line and are connected with it at the lower end of the
yard. They are well arranged with the exception that they are
not connected above the tipple which makes an unnecessary amount
of switching and interferes with the loading when the mine is in
operation.

There are no track scales at this tipple and the
loaded cars are taken up to the Wootton Mine to be weighed. This
makes considerable extra switching although it is done without
cost to the Company.

**EQUIPMENT**

In addition to the equipment already described there
are three ten-ton Jeffrey motors. Two of them are in use, one
at the Wootton Mine and one at the Turner Mine. The third
was burned in a fire which destroyed the motor house. It was
sent to Denver for repairs more than a year ago. The repairs
have not been made and it is said, at the mine, that its con-
dition is such that it is not worth rebuilding.

A small sawmill is located at the Wootton Mine.
The engine is in use operating the fan, the boiler, a small
portable one, might be repaired but it is of little value. The
mill itself is probably worth nothing. A cutoff saw, operated
by electricity, is in condition to run but is not of any part-
icular value.

A blacksmith shop is located at each mine. The one
at the Wootton mine is a good corrugated iron building contain-
ing two forges, a drill press and the usual assortment of small
tools found in a blacksmith shop. The one at the Turner Mine
is a very small building containing one forge, a drill press and
a few small tools.

There are about 275 pit cars at the mines. The cars
are of good design and substantial construction, holding about
2500\# of coal. At least 30\% of them are in bad order and can-
not be used without considerable repairs.

**BUILDINGS**

**Tennant Houses**

There are sixty-six tennant houses for use of the
employees. These houses are scattered from Wootton Station
to the Ranch House. Fifty-two of them are located in the
vicinity of the Wootton Mine and fourteen near the Turner Tipple. They are generally substantial frame houses set on stone foundations. There are a few built of corrugated iron. They vary in size from two to six rooms. Some of the larger are provided with a bath. They compare very favorably with the houses usually found in mining camps. The rental is two dollars per room per month with an additional charge of forty cents per room per month for electric lights.

OTHER BUILDINGS

At the Wootton Mine is a stable, well built, of corrugated iron, with corrals and sheds adjoining. The stable at the Turner Mine is a small corrugated iron building.

The office is a two story frame building. The lower floor is used for office purposes while the upper floor is utilized for sleeping rooms. A bath room with all modern conveniences, is located on this floor. The store building adjoins the office. It is a cheap frame building, but answers every purpose for which it is intended. The saloon is located near the office. It is a good frame building with store house adjoining. The powder house is a concrete building, just in front of the store, a very dangerous position for such a building and its contents. A school house belongs to the Company and brings a rental of ten dollars per month from the school district.

POWER PLANT

The power plant is located at the Turner Tipple. It consists of two large boilers of a capacity of 150 h. p.
each, made by The Atlas Engine Company of Indianapolis, two Jeffrey Direct Current generators, capacity 100 K. W.
each, used for power, and one Woods alternating current generator, capacity 75 K. W., used in connection with the lighting system. The necessary switch boards and station equipment are also located in the building. The machinery and boilers are well set and kept in most excellent condition. The building is a frame structure, well built, but the frame is too light for a building of this character and intended for this use.

When the Turner Mine is in operation run of mine coal is dumped from the tipple, through a chute directly into the coal bins in the power house. When this mine is not in operation slack coal is hauled from the Wootton Mine in railroad cars, at an expense of $5.00 per car, and unloaded by hand into the coal bins.

**LIGHTING SYSTEM**

The power plant supplies lights for the entire property. Every building on the place is well supplied with electric lights. A line of poles, extending from the Ranch House to the office, keeps the road well lighted. The tipples, stables, corrals and yards are all equipped with electric lights. The lighting revenue derived from the tenant houses, when they are all occupied, will pay a considerable portion of the expense of conducting the lighting plant. The light and power is distributed through 1.78 miles of line.
The water system consists of two distinct systems. When the system was first built the pipes were too small and it was necessary to relay the entire system with larger pipes. The first system takes its supply of water from a spring near Wootton Station. The water is piped through the camp to the last houses near the Wootton Mine. Pipes are carried to all stables and the larger houses and buildings. The smaller houses are supplied by hydrants conveniently located to supply several houses from each hydrant. The second system gets its supply of water from McBride Canon. It supplies the ranch house and buildings, the power house and the fourteen houses built near the Turner Tipple. The water supply is ample and the quality of the water furnished is good. The water is distributed through 1.6 miles of pipe line.

TELEPHONE SYSTEM

All the main buildings, stables, shops, office and ranchhouse are connected by a telephone system. Phones are also installed in the mines as required by law. The system was paid for by the company, but belongs to the Mountain States Telephone Company and the service is supplied at a reasonable price. There are two miles of telephone lines on the property.

STORE

The store carries the usual general stock necessary to supply a mining camp. At present, the stock will invoice about $3,800, but it is increased when the mines are working
more regularly.

**SALOON**

The saloon does a business of from $400 to $1000 per month. It has been open continuously while the balance of the saloons in the district have been closed. It is also open Sundays in defiance of the laws in regard to Sunday closing. The Company would be liable to prosecution should the authorities see fit to take the matter up.

**SIDE TRACKS**

The side tracks were put in at the expense of the Company, but are operated by the Railroad Company. There is altogether 2.91 miles of track.

**EMPLOYEES**

The employees of the Company seem to be faithful and efficient, doing their best to promote the interests of the Company. Under proper direction their efforts should prove effective.

**ACCIDENTS**

The mines have been remarkably free from accidents. The few serious accidents which have occurred have been from falls of rock and were due to the carelessness of the injured parties.

**MINING OPERATIONS**

The books of the company show that the following are the results of the mining operations for the following years:
<table>
<thead>
<tr>
<th>Year</th>
<th>Tons Sold</th>
<th>Tons Mined</th>
<th>Cost, Cents Tons Sold</th>
<th>Cost, Cents Tons Mined</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1910</td>
<td>70,124</td>
<td>63,137</td>
<td>164.0</td>
<td>182.0</td>
<td>$114,934.13</td>
</tr>
<tr>
<td>1911</td>
<td>130,535</td>
<td>117,616</td>
<td>114.8</td>
<td>127.1</td>
<td>149,479.93</td>
</tr>
<tr>
<td>1912</td>
<td>140,157</td>
<td>125,939</td>
<td>120.9</td>
<td>134.7</td>
<td>169,735.61</td>
</tr>
<tr>
<td>1913</td>
<td>99,865</td>
<td>84,175</td>
<td>138.9</td>
<td>154.7</td>
<td>120,408.14</td>
</tr>
<tr>
<td>1914</td>
<td>25,791</td>
<td>23,766</td>
<td>165.8</td>
<td>187.7</td>
<td>42,755.08</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Mining Cost</th>
<th>General Expense</th>
<th>Total Cost</th>
<th>Receipts</th>
<th>Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>1908</td>
<td>$32,962.45</td>
<td>$2,662.35</td>
<td>$35,625.28</td>
<td>$4,687.51</td>
<td>$30,937.77</td>
</tr>
<tr>
<td>1909</td>
<td>60,162.36</td>
<td>6,246.50</td>
<td>66,411.86</td>
<td>15,227.19</td>
<td>51,184.67</td>
</tr>
<tr>
<td>1910</td>
<td>114,934.13</td>
<td>10,762.11</td>
<td>125,696.24</td>
<td>88,214.06</td>
<td>37,482.18</td>
</tr>
<tr>
<td>1911</td>
<td>149,479.93</td>
<td>14,405.29</td>
<td>163,885.22</td>
<td>147,100.15</td>
<td>16,785.07</td>
</tr>
<tr>
<td>1912</td>
<td>169,735.61</td>
<td>15,865.93</td>
<td>185,601.54</td>
<td>164,812.75</td>
<td>21,058.79</td>
</tr>
<tr>
<td>1913</td>
<td>130,408.14</td>
<td>16,204.98</td>
<td>146,613.12</td>
<td>124,054.57</td>
<td>22,558.45</td>
</tr>
<tr>
<td>1914</td>
<td>42,755.08</td>
<td>12,457.35</td>
<td>55,212.43</td>
<td>39,528.52</td>
<td>15,684.11</td>
</tr>
</tbody>
</table>

Total Loss from Mining Operations = $210,144.04

Profits on Subsidiary Accounts

<table>
<thead>
<tr>
<th>Year</th>
<th>Store</th>
<th>Boarding House</th>
<th>Saloon</th>
<th>Supply Account</th>
<th>Misc. Accounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1908</td>
<td>$4,192.39</td>
<td>$436.78</td>
<td>$734.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1909</td>
<td>7,199.53</td>
<td>820.47</td>
<td>14.99</td>
<td></td>
<td>$4,565.40</td>
</tr>
<tr>
<td>1910</td>
<td>3,902.27</td>
<td>3,270.56</td>
<td>3,289.15</td>
<td></td>
<td>626.78</td>
</tr>
<tr>
<td>1911</td>
<td>3,152.83</td>
<td>5,392.51</td>
<td>9,671.63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1912</td>
<td>10,110.52</td>
<td>9,725.63</td>
<td>10,791.99</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1913</td>
<td>10,315.14</td>
<td>7,107.91</td>
<td>8,549.07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1914</td>
<td>3,200.94</td>
<td>2,746.42</td>
<td>7,322.22</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$43,571.10 + $7,136.59 + $28,962.92 + $32,624.06 = $106,358.05

Total net profits from Subsidiary Accounts = $106,358.05

Supply account includes light, rent, smithing, powder and unclaimed wages.

J. A. OWENBEY'S EXPENSE

<table>
<thead>
<tr>
<th>Year</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1909</td>
<td>$5,881.27</td>
</tr>
<tr>
<td>1910</td>
<td>29,517.51</td>
</tr>
<tr>
<td>1911</td>
<td>13,119.27</td>
</tr>
<tr>
<td>1912</td>
<td>13,999.98</td>
</tr>
<tr>
<td>1913</td>
<td>12,139.01</td>
</tr>
<tr>
<td>1914</td>
<td>17,549.21</td>
</tr>
</tbody>
</table>

Total = - - - $92,200.37
The items included in the above account are:

General expenses, the Boulder Office, Legal Expenses and the Ranch Expense.

Net loss from Mining Operations - $101,785.99
Add J. A. Owenby's Expense - 22,200.37
$193,986.36

Additional Income due to Strike in 1913 and 1914 - 25,000.00

Depreciation at 10¢ per ton - 48,018.60
Total Loss on entire property, mine and ranch - $217,004.96

ACTUAL LOSSES PER TON MINED

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1910</td>
<td>$1.16</td>
</tr>
<tr>
<td>1911</td>
<td>.14</td>
</tr>
<tr>
<td>1912</td>
<td>.14</td>
</tr>
<tr>
<td>1913</td>
<td>.02</td>
</tr>
<tr>
<td>1914</td>
<td>.97</td>
</tr>
</tbody>
</table>

In estimating the total losses of the Company, a depreciation charge of ten cents per ton for all coal sold was charged off. While this would be an large amount to charge to this account at an ordinary mine it seems to be a very proper charge in this case. The main depreciation here is on machinery and equipment in use at this mine and the certainty that it will be almost a total loss should the mine be abandoned this charge is not excessively high.

The books of the Company show that an average of about eleven per cent more coal was sold than the miners have received pay for. While a small portion of this might be accounted for by coal loaded by company men, by cars which had been docked on account of rock or bone being loaded in the car or by the natural difference in the weights between pit cars weights and railroad weights, there seems to be no doubt but
what the greater portion of this difference is due to short weighting the pit cars. This is a practice which cannot be too strongly condemned. The short weighting of miners is a cause of continual disputes and trouble and is not countenanced by any competent management.

The above figures show a total loss of $217,004.96 during the five years the property has been in operation. There was some loss on the ranch and cattle business, but the majority of the loss has been on the mining operations.

From the books it has been impossible to segregate the equipment accounts entirely from the operating accounts and it is quite probable that some of the losses are due to charging some items to operating expenses which properly belong to equipment. While the mine, at the best, is difficult of operation it would seem that, with proper management, it should have been operated with at least no loss, if not a small profit, leaving the profits of the subsidiary operations, such as store, saloon, etc. net to the Company.

The general plan of the mines is good but proper care was not taken in maintaining the roadways and air courses. Proper care was not taken to extract all the coal before abandoning that portion of the mine which is lost. Considerable coal was left in unfinished rooms and pillars which should have been extracted at a very moderate cost.
For mining the standard District price was paid. This was 50¢ per ton during the earlier period of the operations and 55¢ per ton during the latter period.

The average cost of narrow work was about 25¢ per ton. This charge is very excessive. From the data at hand it is impossible to tell exactly of what items this charge consists but it should be less than one half that amount. It would hardly seem probable that the presence of the rolls encountered should account for this abnormal charge.

The hauling charge averages about 21¢ per ton. This is at least 6¢ per ton in excess of what it should be. The haul is short, roads good and mules and machinery equipment excellent. If the tracks and equipment were kept in proper repair there is no excuse for the large charge to this account.

The dumping and loading account shows a charge of about 3.5¢ per ton. This is a very high charge considering the excellent tipple facilities. This can be partially accounted for by the low output of the mines on some days. The expense of operating the tipple is about the same when the output is small as when it is large.

The timbering account shows a charge of about 16¢ per ton. Considering the character of the roof and the conditions in the mine this charge is not as much out of proportion as the preceding accounts, but it could be reduced to some extent.
In the electric power account about 4¢ per ton is charged except during the year 1914, when the cost went up to 15.6¢, probably on account of the small output for this year.

The drainage and ventilation account averages about 2¢ per ton until 1914, when it jumps to 10.4¢ due to the small output for the year.

The maintenance account averages about 12¢ per ton. This charge is about 4¢ higher than it should be under the conditions.

With these various charges reduced to their proper amounts the mining operations would show a profit. The evident cause of these high charges is lack of proper supervision. The efforts of the employees were not properly directed and the highest efficiency was not secured.

The losses of the Company are largely due to the excessive General Expense charges. For the five years the mine has been in operation these expenses have averaged about 21¢ per ton. This includes only the amount charged to Col. Owenbey's expenses and not any office or General Expense incurred at the mine.

There seems to have been no organized sales department nor any special system of disposing of the mine product. The sales have been made largely to railroad companies. The price paid by the railroad companies is very low and no large
profits can be made on this class of business. The books show that about 80% of the production of the mines was sold to the railroad trade. There seems to have been little effort made to prepare the coal for the commercial trade or to secure that class of business. Run of mine coal has been used exclusively at the steam plant at the Wootton Mine and also at the Power House when the Turner Mine was in operation. This is a needless expense as only slack coal should be used at steam plants at the mines.

From the books it seems that a careful record of the coal produced has been kept. The coal produced by Company men has been segregated and all sales, including those to employees, have been recorded. In the statement of the coal sold for the years 1913 and 1914 the estimate of the receipts was made at the normal price of this coal. To the earnings there was then added an arbitrary sum on account of the receipts due to the abnormal conditions at that time. The general strike in the Colorado coal fields during the latter part of the year 1913 and in 1914 had very little effect on this mine and under proper management the mine should have maintained its normal output.

PROSPECTING

The Wootton vein has been opened up at various points along the outcrop of the property. These openings have all caved in and cannot be examined at present but they enable the
vein to be traced on the North and East sides of the land.

There are records of five drill holes which were put down in 1904 by The Raton Coal and Coke Company. Two of them are in McBride Canon below the outcrop of the Wootton vein. Three are south of McBride Canon and east of the Wootton Mine. These three were only put down through the Wootton vein. All three show this vein at the bottom of the holes but it shows smaller than where it has been worked. This is to be expected as on account of the fragile character of the coal it breaks up badly and it is impossible to get a core the full size of the vein. There is no doubt but what the Wootton seam extends a considerable distance east of the present workings. The three holes in McBride Canon do not reach the Morley vein and show only a few small, unworkable veins.

Another map was found in the office, a duplicate of the one hereto attached, except that it shows the Wootton vein to be six feet in thickness and shows two holes cutting the Morley vein one hundred feet below the Wootton vein. The Morley vein is also shown to be six feet in thickness. It is very evident that this map was made from the original map and the changes made in the records of the drill holes with the object of giving a wrong idea of the size and location of the veins and to show a fictitious value to the property.
From the information gathered the operations of the property have been conducted at a loss from the beginning. The incompetency and extravagance of the management is a matter of common talk among the present, as well as former employees of the Company. The severest criticisms of the management of the property seems to come from the employees who are well acquainted with the details of the business.

The mismanagement is in evidence from the beginning of the operations. Two complete mines were opened and equipped when one could have taken care of the business. Expensive machinery and equipment was purchased and installed when cheaper equipment would answer every purpose. Equipment capable of handling 2,000 tons of coal per day was installed and the output of the mine has never averaged 500 tons per day for any year. No definite plans were outlined in the beginning and as a result a large amount of remodeling and rebuilding was done. Reports are that a number of incompetent men, at times, were in charge of the operations. While a number of thoroughly competent men have at times been in charge of the mine they have been hampered and handicapped in such a manner that they were unable to secure favorable results.

The same conditions prevailed in the conduct of the ranch and stock business. With competent and economical management this branch of the business should have been very remunerative. For the past ten years the cattle business has
been one of the most profitable in the west. In this case the investment in useless ranch equipment and buildings, and their maintenance, has proved too heavy a burden for the business to bear.

**VALUE OF PROPERTY**

The value of the property depends entirely upon the development of the lower coal veins. As a stock ranch, its value, with the ranch improvements, is approximately $8.00 per acre. The Wootton vein, which is now being worked, adds very little to the value of the property as it is only by the most careful management that it can be worked profitably at the present time. It is possible that at some time in the future conditions may be such that this vein can be worked to good advantage, but this possibility is so vague that it need not now be considered.

Should a series of drill holes show that the Morley vein extends under this tract and that it is in the same condition as where it is now being operated, the value of the land would be fully established. A six-foot vein of coal will produce 6,000 tons of coal per acre and if the roof is good and other conditions favorable considerably more can be recovered. The average royalty paid in the state is 10¢ per ton. Upon a royalty basis this would make the coal land worth $600.00 per acre after it is thoroughly proven. The selling price of land, however, never approximates its royalty value. Land
in this district sells at from $50.00 to $150.00 per acre after it is prospected on the outcrop or partially drilled. The more proof of the existence of the coal the higher the value of the land.

The value of the improvements connected with the mine is very little provided no opening is made on the Morley vein, so that the business can be carried on at this point. They would have to be sold for any price they would bring, in case a customer could be found. The cost of tearing down, removing and the necessary remodeling, to suit conditions at another mine, would be so high that they would bring but a fraction of their original cost. The market for the majority of the equipment is so limited that it is doubtful if it could be sold at all.

In case it were necessary to sell the equipment it would probably bring about $50,000.00.

The Trinidad District contains three series of coal veins. In the southern part of the District, where the property under consideration is located, not enough development has been done to definitely locate the different series or fully identify the veins now being worked.

As the chief value of the property depends upon its coal resources, only a speculative value can be placed upon it until the coal measures have been proven. As none of the larger and more valuable veins crop on this property the only way of proving its value is by systematic drilling. Just
how many holes must be drilled to secure this information can only be determined as the work progresses. There is a possibility that this drilling will show that some veins, which are of unworkable size in other parts of the field, will prove valuable on this property. At least one hole should be put down to the Trinidad sandstone, which is the base of the coal measure. The information obtained from this hole will determine the necessity for the further drill operations. There is no doubt but what at least one valuable vein will be found by the drill.

**SUMMARY**

The quality of the coal is good and did it not break so badly in handling it would compete favorably with any coal mined in the Trinidad district. A serious mistake was made in the location of the opening. Had it been considered advisable to open this vein, the openings should have been made in McBride Canon, which would have enabled the entire plant to have been consolidated. This would have aided materially in reducing the expense of operation and avoided the duplication of parts of the outside plant. The equipment is all good, but has been so installed that it cannot be efficiently used.

These mines should never have been opened. It was evidently done without proper investigation as to the character of the coal and the expense of mining and preparing the coal for shipment. A careful investigation by a competent person would have shown that this small vein, with the impurities and bad roof, could not be advantageously operated in competition
with the larger veins in the district. The entire plan seems to have been arranged by someone entirely unfamiliar with the problems encountered in the opening and operation of coal mines.

Since the opening of the mine the operations have been conducted at a loss, first, on account of the bad management; second, on account of the poor installation of the equipment, and third, on account of the heavy burden of the General Expense account.

THE MORLEY MINE

The Morley Mine is located about one mile north of the north line of this property on North Raton Creek. It has been in operation about eight years. The coal on the west side of the Creek is developed by a slope while on the east side two drifts have been driven in on the vein. These drifts will soon be connected and will be operated together.

On the east side of the gulch the coal in the main entry was nine feet in thickness when a sandstone parting came in gradually pinching the coal down to about four and one-half feet. The vein then gradually increases in size until at the south and east extremities of the mine, that part nearest this Company's property, it is again about six feet in thickness and is cleaner and better than in any portion of the mine. The vein is as regular as any in the Trinidad field. In two cases it has been necessary to install small hoists to haul the coal up
hills where the vein dips too much to be handled with motors. Otherwise the coal is all hauled with motors. A few rolls and small faults have been encountered. These irregularities are characteristic of the field. From conditions as shown by the developments in other portions of the field, it is only fair to assume that this vein extends indefinitely south and east and under the Wootton property. Its depth, at a favorable point of attach, is probably between 250 and 350 feet.

RECOMMENDATIONS

A careful study of the coal formation in this district indicates that the Morley vein probably extends under this property. The vein has been opened and developed to a point within about one fourth of a mile of this property. The persistency of the vein, as shown in the development of the Morley Mine and the improvement in its character and quality in that portion of the mine nearest the property of this company, would indicate that the vein underlies this Company's land and that it is as valuable there as where it is now being operated. A few drill holes would decide definitely just what can be expected from the Morley vein on this property. Just how many holes will be required can only be determined by the information obtained as the drilling progresses. Should the Morley vein prove to be what there is every reason to expect it is, one of the best mines in the district can be opened at this point.

Should the results of the drilling prove to be as
favorable as there is every reason to expect they will be, it will add immensely to the value of the property. Should the drilling not be done the property will probably be sold at some time, for a fraction of its probable value, to someone who will prove it up and receive large returns for his investment. The expense of drilling is so slight and the possibilities so great that it would seem a mistake to let this land go longer unproven.

In the meantime the present mine could be operated, in a small way and at no loss, the organization of the camp maintained and plans made for operations on a more extensive scale, should it be thought advisable in the future. It would be much easier to dispose of the property, either by lease or sale, if it is in operation.

Unless some such action is taken the present operating mines should be abandoned at once and the property used as a stock ranch. This would involve a practical loss of the entire investment in buildings and equipment as the salvage would be only a small per cent of the investment. Should a mine be opened on the Morley vein a large part of the present equipment could be used.
EXHIBITS

Exhibit No. 1.

This is a compilation of the cost of the entire plant as shown on the books and records in the Company's office. This shows the total real estate investment to be $162,075.17. The cost of the different items of the equipment is also shown. The present value of the equipment and personal property is also given provided the mining operations are continued so that this equipment can be used as it now stands. Should the mine be abandoned and the buildings and equipment be torn down and moved to a new location its value would not exceed $50,000.00 and including merchandise and live stock, $71,674.00.

Exhibit No. 2.

This is a synopsis of the mining operations for the past five years showing the number of days operated, tons of coal produced and other details in connection with the mining operations. This also shows that during the first three years of the operation of the mine, when the conditions were normal, the coal was sold for less than the cost of mining, while during the last two years, during the strike period, the coal was sold at a profit above the cost of mining. These figures do not include any General Expense.

Exhibit No. 3.

This is a classification of the production of the
mine, showing the tons of each size of coal produced, the percentage of the output of each size and selling price of the different sizes. This shows that the larger production, Engine Lump, was sold for the lowest price of any of the classes produced except slack. It would appear from this exhibit that proper effort was not made to produce and market the most profitable grades of coal.

Exhibit No. 4.

This is a small scale map of that portion of the property in Colorado, showing the location of the drill holes and sections of the holes. In red is shown the changes made on another map with the evident intention of giving wrong information in regard to the property.

Exhibit No. 5.

This is a map of the entire holdings of the Company. This map was compiled from what appeared to be the most authentic maps on file in the Company's office and from other data found in the examination of the records. The following table shows the condition of the title as it appears from the examination made:

<table>
<thead>
<tr>
<th>Including Coal</th>
<th>Acres</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. In dispute with O.F. &amp; I.Co.</td>
<td>2.633.0</td>
<td>890</td>
</tr>
<tr>
<td>C. Turner Tract</td>
<td>2,293.72</td>
<td></td>
</tr>
<tr>
<td>E. Wootton Tract</td>
<td>5,126.72</td>
<td></td>
</tr>
</tbody>
</table>

Total Acres: 890
<table>
<thead>
<tr>
<th>Surface Rights Only</th>
<th>Acres</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. In dispute with John M. Johns. Case won by Johns in District Court. Appealed to Supreme Court</td>
<td>1,212.8</td>
<td></td>
</tr>
<tr>
<td>F. Acquired from ST.L.R.M. &amp; P.Co. Title Doubtful.</td>
<td>184.6</td>
<td></td>
</tr>
<tr>
<td>G. In dispute with C.P. &amp; I.Co. (About)</td>
<td>80.0</td>
<td>230.0</td>
</tr>
<tr>
<td>H. Smith Ranch</td>
<td>5,361.2</td>
<td></td>
</tr>
<tr>
<td>J. Smith Tract</td>
<td>5,441.2</td>
<td>1,627.4</td>
</tr>
<tr>
<td><strong>Not Owned by Company</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. Owned by C. F. Turner</td>
<td>51.3</td>
<td></td>
</tr>
<tr>
<td>I. Fairbanks Tract</td>
<td>200.0</td>
<td>251.3</td>
</tr>
</tbody>
</table>

**Exhibit No. 6.**

This is a map of the Wootton Mine taken from the maps on file in the Company's office and extended to January 1st, 1915. This map shows, in colors, the portion of the mine lost by a squeeze and that portion which was allowed to cave.

**Exhibit No. 7.**

This is a map of the Turner Mine made from the records in the Company's office. This mine has not been operated since February, 1914.
TOTAL INVESTMENT

Exhibit No. 1.

Real Estate
Buildings
Machinery and Large Equipment
Roads, Bridges, Fences, Farm Implements, etc.
Tools and Small Equipment
Merchandise and Live Stock

$162,441.49
81,732.78
72,477.36
14,359.08
23,831.88
21,674.07

$376,516.66

Of the above investment it is impossible to segregate the mine investment accurately from the ranch and other investments. The division should be about as follows:

Mine Investment
Ranch and other Investments

$301,324.80
75,191.86

$376,516.66

MINE EQUIPMENT

It is impossible to segregate the cost of the different items in the larger equipment as it is included in two contracts, each of which covers several items and also includes the freight, erection, and installation of the equipment.

Power Plant (Jeffrey Contract) $15,657.00
2 Tipples (Jeffrey Contract) 16,725.00
3 Electric Locomotives (Jeffrey Cont.) 7,739.63
Labor, Buildings & Misc. Equipment 10,023.92
Electric Light Plant 10,071.20
Turner Tramway 1,155.15
Mine Drainage 911.28
Mine Ventilation 499.67
Saw Mill 1,872.45
Water System 8,470.98 $72,477.36

Tenant Houses 62,059.86
School House 978.75
Barn 1,636.44
275 Pit Cars 16,480.63
Track Scales 1,555.49
Office Furniture and Small Items 3,995.76 $86,405.95

Real Estate which includes coal rights and cost of surveys and expenses in perfecting title.

$314,441.49

$301,324.86
RANCH EQUIPMENT

Wootton Ranch House, Buildings, etc. $17,158.71
Harness, etc. 1,000.00
Wagons and Vehicles 1,000.00
Roads, Bridges and Implements 14,359.08 $33,517.79
Real Estate, No Coal Rights 20,000.00
Merchandise and Live Stock 21,674.07 $75,191.86

LIVE STOCK

Horses, 24 Head 1,825.00
Mules, 33 Head 3,300.00
Cattle, 207 Head 10,079.00
Hogs, 80 Head 800.00 $16,004.00
Merchandise 3,877.19
Feed Supply 1,100.00
Mine Timber Supply 346.94
Powder Supply 172.67
Liquor Supply (Saloon) 173.27 $21,674.07

PRESENT VALUE OF EQUIPMENT

A considerable portion of the equipment was installed by contract and at a reasonable cost. This equipment is first class and generally a charge of 20% of its cost would be a fair depreciation charge. In other cases a much larger charge should be made as some of the equipment is practically useless at present. The following would be a fair valuation of the equipment at the present time assuming that it is to be used at its present location:
No valuation, other than a speculative one, can be placed upon the land until it is proven that it contains coal veins other than the Wootton Vein. Assuming that it is worth the original investment the present value of the property would then be:

Real Estate $162,441.00
All other Property 138,374.00

$300,815.00