



APR 26 1940

RECAPITULATION OF MINES IN JOSEPHINE & JACKSON COUNTIES, OREGON GEOLOGY & MINERAL INDS.

Jackson County

	<u>Placer</u>	<u>Active Underground</u>	<u>Total Mines</u>
Ashland District.....		1.....	30
Gold Hill District.....	19.....	14.....	132
Jacksonville District.....	2.....		13
Lake Creek District.....			13
Upper Applegate District...	12.....	2.....	73
	<u>33</u>	<u>17</u>	<u>251</u>

Josephine County

	<u>Placer</u>	<u>Active Underground</u>	<u>Total Mines</u>
Galice District.....	18.....	7.....	71
Grants Pass District.....	7.....	4.....	38
Greenback District.....	9.....	3.....	49
Illinois River District.....	9.....	2.....	43
Lower Applegate District.....	1.....	4.....	30
Waldo District.....	18.....	7.....	84
	<u>62</u>	<u>27</u>	<u>315</u>

TOTALS

	<u>Placer</u>	<u>Active Underground</u>	<u>Total Mines</u>
Jackson County.....	33.....	17.....	251
Josephine County.....	62.....	27.....	315
	<u>95</u>	<u>44</u>	<u>566</u>
	139		

ACTIVE PROPERTIES

Jackson & Josephine Counties

Ashland District

Ashland Granite Quarry

Gold Hill District

Placers

Bull Frog
Galls Creek
Johnson
Jump-Off-Joe
Last Chance
Lone Star
Neathamer
Porcupine
Scott's
Sprague
Telcamp
Williams

Dredges

Murphy-Murray
Pleasant Creek
Mining Co.

Drag-Lines

Gold Hill Placers
Washing Plants

Green's Placer
Lance

Manfield Mine
Seaman Bar.

Quartz

Braden Extension
Dance Prospect
Carbonate
Corporal G.
First Hope
Little Johnny
Lucky Bart
McTimmons Prospect
No Name
Red Oak
Sylvanite

Others

Bristol Silica
Holecomb Mineral Springs
Oreg. Pulp & Paper

Jacksonville District

Orth Placer
Winchester-Houston
Placer

Lake Creek District

None

Upper Applegate District

Placers

Andes & Howard
Iayton
Federal
McKee
Rose
Spaulding
Sterling
Tyson

Drag-Lines

B-H Co.
Crescent-Pacific
Hayfork (McC)

Washing Plants

Williams.

Quartz

Merrick
Old Faithful

Galice District
(continued)

Quartz

Benton
Black Bear
Bunker Hill
Lucky Shot
Oriole
Pyx
Tibbetts Springs
Group.

Galice District

Placers

Archer (Carnegie)
Benson
Butte Creek
Calif.-Oreg. Placer
Dean & Dean
Fowler Group
Golden Bar
Golden Eagle
Klum
Last Chance
Liepold
Old Channel (includes Ankeny, Courtney, North)
Old Rogue Channel
Old Hand
Three L's.

ACTIVE PROPERTIES

(continued)

Grants Pass District

Placers

Big Four
Jump-Off-Joe
Havens
Little Marvel
Saxton
Surety
Swastika

Quartz

Contact Group
Empire (cinnabar)
Ida Consolidated
Lambtongue.

Greenback District

Placers

Brass Nail
Buckhorn Mining Co.
Columbia
Egger
Forsythe
Goff
Payne's
Speaker
Steam Bear.

Quartz

John Hall Group
Greenback ?
Macabee
Reed

Illinois River District

Placers

Anderson
Elkhorn
Gold Bond
Independence
Josephine Cr.
Placer Mines Co.
Sherman
Stecher
Drag-Lines
Oreg. Placer Mines, Inc.

Quartz

Gold Blanket
White Pine

Lower Applegate District

Placers

Horsehead

Quartz

Hundinger
Oregon Bonanza
Oregon Lime Products
Porcupine
Marble Mt. (Beaver-Portland Cement Co.)

Waldo District

Placers

Ajax
Akers Mining Co.
Bolan Lake
Calif. Bar Mining Corp.
Esterly
Four Leaf Clover
Four Star
Fry Gulch
Plataurica
Johnson
Logan's Sailor Gulch
The Lone Star
Lucky Strike
May Queen
Merril
The Suetter Placer Mines, Inc.
Waldo Placer
Drag-Lines
Atlas Gold Dredging Corp.

Quartz

Frog Pond
Inspiration
Lilly (copper)
Pony Shoe
Portland Group
Rainbow
Tap Top.

REPORT ON PROPOSED COAL AND SHALE DEVELOPMENT

JACKSON COUNTY

As the purpose of this report is intended primarily to set forth the possibilities of the development of a coal supply for relief families and, in conjunction with that work, to determine a supply of shale suitable for surfacing of roads and airport runways; the information will stress the probable costs of such operations and touch only briefly on the geologic phase.

The coal is that of a tertiary deposit some five miles in width and extending from Ager, California to Evans Creek in Oregon, about fifty miles long.

I have confined my investigations however to four developments of the coal bodies lying Easterly and Northerly from Medford within a distance of four miles, namely the Black Bear, the Sunnyside or Southern Pacific property, the Roxy Anne Coal Company, and the Cascade Coal Company.

The Black Bear property is located in Section 35, Twp. 37 S. R. 1 W. It is easily reached by good road. Coal has been developed in three tunnels and operations were apparently quite extensive, with some coking of coal, and sorting and screening for custom trade. About 1300 feet of tunnel was opened in the main adit. Tunnel mostly is now caved but surface outcrop indicates a body about 10 feet thick of rather shattered bedding, carrying considerable shale and a large amount of iron. As this property is most remote from Medford, it is not advisable to consider development.

The Roxy Anne Coal Company's operations were in Section 15, T. 37 S. R. 1 W. W.M. at an elevation of about 2290 feet. This property was controlled by a stock company but operations were carried on by a John Watson, who opened some 800 feet of tunnel and exposed one bed of 15 feet thickness of coal. There is a good quality of coal here, showing good heat value. Close banding indicates good pressure and the coal comparatively free from impurities. No marketing was done, due to an injunction served in 1918, since which time no operations have been carried on. As this property would have to be reached over a mile of undedicated road and heavy grade, it is not given consideration for present purposes.

The Sunnyside Coal Company carried on operations reputedly under direction of the Southern Pacific Railroad Company in the opening of a vein of coal exposed in the N. W. 1/4 of Section 23, T. 37 S. R. 1 W. W.M. for the purpose of determining a coal supply. Some 1600 feet of tunnel is said to have been run. This tunnel work is

located at an elevation of 2170 and would be accessible by a road of easy gradient and partially built, about 1 mile in length from the Prescott Camp of the C.C.C. The portal of one adit has been cleaned and water tapped from the workings. The vein exposed shows about six feet of vein formation at this point with about 18" of fair coal at the roof or back and the lower portion of vein showing bands of coal, shale, and pervious earth. The close banding in the formation gives favorable indications of a fair grade of coal at depth and consequent pressure. From information of those who formerly worked here, there is a band of two foot thickness of fair quality coal in these workings and said to be about the best grade for domestic purposes produced in the district.

As this property has possibilities of coal and the tunnel or shaft can be opened at moderate expense, I would recommend further investigation and opening of the tunnel. An estimate of costs for this is included in a later paragraph.

With regard to shale supply for surfacing material from this property, the over burden is too great for economic development.

On the Roxy Anne road about 1/4 mile above Prescott Camp however, an outcropping of a similar band of shale and sandstone is exposed and would well warrant surface trenching and pits to determine the possibilities for materials for Roxy Anne and adjacent roads. The opening of a quarry and installation of a crusher in the sand rock should receive consideration.

The Cascade Coal Company developed a vein in Section 4, T. 37 S. R. 1 W. in which vicinity they had mineral rights on some 1200 acres. Two adits were opened in the S.E. 1/4 of the S.E. 1/4 of Section 4. One tunnel 1000 feet in length was not in the vein, but immediately to the North an adit was run on the vein about 1350 feet. Workings followed the dip of 7° for about 60 feet when a sump was made and then workings extended on water grade to provide drainage from this tunnel, and a reputed production of some 30,000 tons was made and marketed locally.

The workings have been drained at the portal, but due to the dip, are not accessible to depth because of water. Some work has been done on an adit on dip to the north but was discontinued because of water and small scale operations.

Exposures indicate a bedding thickness of about 7 feet between sandstone roof and slate floor, being banded coal, iron and clay, with seams of shale throughout.

A typical section of the interior seam furnished from old data shows as follows:

20 feet thickness green sandstone roof 5" to 8" coal and slate.

8" Coal - thin iron band.

2½ ft. coal.

Seam 2" fine clay.

18" to 24" of coal.

1 ft. of black slate floor.

This would indicate about 2½ feet of commercial coal, though it would have to be verified.

Surface samples indicate a high shale content and banding of other impurities.

It is probably that by sinking on the dip of the vein more northerly from the existing tunnel that a commercial grade of coal of greater thickness would be found within 200 feet depth. This would require the installation and operation of a 3" pump.

This new tunnel operation would be much less expensive than opening the old workings and would give immediate coal supply when found. The increasing depth would be more favorable to quality of coal, due to greater existent pressure.

Shale for surfacing is most easily accessible for use at this property than any of the others, and for airport use would be the shortest haul, about five miles over good roads and highways. A considerable body of shale has practically no overburden. An investigation by cuts and pits by hand labor would be justified to determine yardage available for surfacing.

An estimate of such development on the Cascade property is herewith submitted. Wages based on W.P.A. scale.

<u>Timbering</u> 10 sets and 50 ties.		
Cutting, hauling, framing and setting timber	\$67.60	
Truck Hire		\$5.00
<u>Tunneling</u> 100 ft. 6' x 6'		
2 miners, 1 mucker, 1 hoist man	394.00	
Total Labor	\$461.60	
<u>Equipment</u>		
1 Hoist, rental 2 months @ \$50.00		100.00
1 - 3" pump and engine, rental 2 months @ \$30.00		60.00
Engine fuel		60.00
Small tools, lamps, etc.		30.00
2 Mine cars @ \$25.00		50.00
300' 16# rails, 1600# @ 10¢		160.00
150' 3" pipe @ 40¢		60.00
Total Equipment		\$525.00
Total 148 hrs. labor		461.60
Total for 100'		936.60

Estimated cost per ton for mining, hoisting and sorting coal is \$1.75 per ton, after this development and operating on a limited scale.

Estimate for opening adit on the vein of Sunnyside property.
100' of Tunnel

Cleaning Tunnel 100' to face.
 Labor

\$105.00

Timbering

20 sets and lagging, and 50 ties
 Cutting, hauling, framing and setting
 timber

120.00
\$225.00

Truck hire

\$ 10.00

Equipment

1 - 1½" pump and engine, 1 mo. @ \$25.00
 Fuel
 2 - Tram cars @ \$25.00
 150' - 1½" pipe @ 20¢
 300' - 16# rails, 1600# @ 10¢
 Small tools, lamps, etc.

25.00
 15.00
 50.00
 30.00
 160.00
 25.00

Total Equipment

\$315.00

Labor

225.00

Total

\$540.00

Summation

Based on a study of the above conditions and costs, I would suggest that investigation of coal for use for relief and county purposes be directed to the opening of the Sunnyside tunnel to a depth of the present face, as it offers best assurance for a suitable fuel, and at least cost. Also there is the possibility of cooperating with Prescott camp for their fuel supply.

In the matter of development of a shale pit for surfacing material I would recommend that four laborers be employed for three or four days, under proper direction trenching and in pits to determine the area of shale at the Cascade property most suitable for power shovel operation.

Also similar investigation to be made of the sandstone and shale on the Roxy Anne road above the C.C.C. camp as a possible valuable source of road material and a chance of developing a coal outcrop on city or county property.

In conclusion I would mention the fact that a very serious effort and study has been made in past years on the coal deposits discussed above, particularly that of the Cascade Coal Company, for the purpose of determining the value of by-products particularly. Authoritative tests have indicated a high value in Adraline, Phenoline and Anthracine dye materials besides the ammonia content, gas and coke that would prove a valuable asset to local industry. Any activity on these properties may go well toward a renewed and healthy interest in the possibility of extensive development, besides accomplishing the present purpose of coal and shale supply.

Although the use of coal from these properties for fuel has been rather unsatisfactory in many instances, due to excessive ash and some clinker, it is possible to select a good quality from the vein by sorting and as there is such a quality accessible, a sufficient supply should be available at reasonable cost with W.P.A. labor and give an excellent hand labor project for all weather conditions.

Respectfully submitted,

HUGH C. INGLE

Mining Engineer