

RESULTS OF LOW-TEMPERATURE CARBONIZATION  
ASSAY, CALCULATED TO AS-RECEIVED  
BASIS

Product	Gilbert	Southport	Thomas	Overland	Alpine	Riverton prospect
Moisture in coal, percent	16.4	16.7	16.9	17.9	19.3	10.1
Yield, percent						
Char	55.3	57.3	55.3	55.4	55.0	60.4
Gas	9.1	9.1	9.3	9.7	10.3	10.8
Tar and Oil	11.9	10.9	10.7	8.4	5.8	11.7
Water	24.1	23.0	25.0	27.0	29.0	17.6
Total	100.4	100.3	100.3	100.5	100.1	100.5
Yield, per net ton of coal						
Char, pounds	1106	1146	1106	1108	1100	1208
Gas, cubic feet (wet) <sup>1</sup>	2982	3110	3048	3195	3179	3236
Tar and oil, gallons	28.4	26.1	25.7	20.2	13.8	28.2
Gas analysis, volume, percent <sup>2</sup>						
CO <sub>2</sub>	26.4	25.4	23.7	25.7	29.5	30.2
Illuminants	2.5	1.4	3.7	2.5	2.6	3.8
CO	10.3	9.2	11.5	9.8	10.8	6.7
H <sub>2</sub>	17.7	20.3	15.8	17.9	15.5	13.3
CH <sub>4</sub>	35.1	36.1	36.6	36.0	33.0	33.7
C <sub>2</sub> H <sub>6</sub>	7.0	5.1	6.6	6.7	6.7	11.1
H <sub>2</sub>	1.0	2.5	2.1	1.4	1.9	1.2
Gross B. t. u. of gas <sup>1</sup> , <sup>3</sup> cu. ft.	609	572	633	611	578	662

1 At 60° F. and 29.92 inches of mercury.

2 Calculated to air-free basis.

3 Calculated from analysis.

(For other tests, see appendix A.)

A low-temperature carbonization assay of a large sample of coal from the Southport mine, submitted by the State Department to the American Lurgi Corporation in March 1944, gave the following results:

Char - From coal as received	54.4 %
Pitch required to briquette 1 ton Char	82.0 lbs.
Coal necessary to form 1 ton briquettes	1.84 tons
Tar Oil - From coal as received	17.00 gal.
	140.00 lbs.
	7.00 %
Pitch - (Low Yield)	1.33 gal.
From coal as received	0.55 %
Oil - From coal as received	15.67 gal.
	129.00 lbs.
	6.45 %
Phenolics - (High Yield)	4.30 gal.
% of Tar Oil	25.30 %
From coal as received	1.77 %
Neutral Oil	11.37 gal.
From coal as received	4.68 %
Gas - From coal as received	240.00 lbs.
@ 600 B. t. u. per cu. ft.	6,000.00 cu. ft.
	12.00 %
Water and ash	26.6%

Further quotation from Yancey and Gear is as follows:

As the foregoing results indicate, carbonization eliminates the moisture and much of the volatile matter and in consequence increases the proportion of fixed carbon and ash and materially benefits the heating value. The char, which contains only hygroscopic moisture, is thus a high-quality fuel, easily ignitable, smokeless, and high in heating value.... It should be stressed that since all of the coals yield chars rather than cokes, a commercial low-temperature carbonization operation would necessarily have to include provision for briquetting most if not all of the char to render it suitable for domestic use.

Excerpt from Bulletin No. 27, Geology and coal resources of the Coos Bay quadrangle, Oregon by State Department of Geology and Mineral Industries, pp. 59-60.

SOUTHPORT LAND AND COMMERCIAL COMPANY

220 MONTGOMERY STREET

SAN FRANCISCO, CALIF.

PHONE SUTTER 5952

June 12, 1947

RECEIVED  
JUN 14 1947

State Department of Geology  
and Mineral Industries  
702 Woodlark Building  
Portland 5, Oregon

STATE DEPT OF GEOLOGY  
& MINERAL INDS.

ATTENTION: John Eliot Allen

Dear Mr. Allen:

I thank you very much for your letter of June 10, enclosing logs of holes drilled on the Southport Mine belonging to this company. In your letter you mention Bulletin No. 27 of your department, and possibly you mailed one to me under separate cover. If not, I will very much appreciate receiving one and will gladly remit its cost.

We have consented to the Coast Fuel Corporation assigning its lease to Herb Olsen, Claude and Clyde Elliott for one year ending April 30, 1948, and these men are operating the mine at present. During such year I am hopeful a more permanent operation can be arranged.

The primary cause of Coast Fuel Corporation's failure was, as you undoubtedly know, under-financing. The secondary cause was, as you also unquestionably know, failure to develop a relatively uniform tonnage market. The secondary cause, of course, ties into the primary cause.

I am hopeful of being able to interest in this picture an experienced coal operator who, prior to April 30, 1948, will have an opportunity to make a detailed study of entire problem--particularly the market, mining costs, and capital needed. The "set up" at present is such that I do not believe any large amount of capital would be required, and particularly so if a uniform tonnage can be marketed at a reasonable profit.

I will certainly be very receptive of any advice or suggestions that you may care to advance, and on my next trip north (in September) I shall give myself the pleasure of meeting you.

Very truly yours,

SOUTHPORT LAND & COMMERCIAL CO.

BY

*E.S. McCurdy*  
E.S. McCurdy, President

ESMc;HG

cc/ Max Bennett

*Send Bull 27  
Cove Bay Coal*

*Complimentary*

*sent 6-16-47*

# State Department of Geology and Mineral Industries

702 Woodlark Building  
Portland, Oregon

23 October 1946

*Coos*  
*Coos Bay*

To: F.W. Libbey  
Re.: Southport mine geology

According to the map supplied me, the 400 north gangway of the Coast Fuel Corporation (formerly Southport) mine is now in about 2500 feet, on a  $1^\circ$  (not  $1\%$ ) slope. The elevation at turning is 22.3 feet, hence a projection north for 2500 feet on this slope would give an elevation of 66 feet at the face, to which must be added a 5 foot jump, which occurs a hundred feet from the face, to make an elevation of 71 feet at the face.

Assuming the correctness of the surface survey, (which was done by plane table under difficult conditions) the coal penetrated in the hand drill holes immediately ahead of the gangway (Holes numbered 40 to 44) has an elevation of the top of the coal of about 127 feet. Subtracting the 5 foot thickness of coal, this gives a difference in elevation between the coal at the face and the coal in the drill holes, of 46 feet.

The accuracy of the surface survey is checked in part by an east-west projection from Hole F (located 500 feet east of the face) where the bottom of the coal is at an elevation of 16 feet. The dip from 16 to 71 feet over that distance plots out very close to  $6^\circ$ , which is the average dip of the coal in much of the mine.

The surface topography above the face in the gangway includes two steep-sided E.N.E. trending gulches, the southern gulch may coincide with the direction and position of the 5 foot jump in the gangway; the northern may represent a 46 foot jump which hypothetically should be intercepted within the next 200 feet beyond the present gangway face.

Signed: \_\_\_\_\_

Geologist

SOUTHPORT MINE

*Beach*  
BEACH

COOS

The Southport Mine is being leased (August 1947) from Coast Fuel Corporation by Claude Elliott, Clyde Elliott, and Herb Olsen on a royalty basis of 50¢ to the government and 20¢ to the Coast Fuel Corporation.

The new operators are driving ahead on the gang way and are now 3200' from the foot of the slope.

*Discovered by ...  
To ...*

SOUTHPORT MINE

COOS BAY

COOS COUNTY

Report by Joseph Daniels, May 14, 1946 in Mine Report File

Drawer.

# State Department of Geology and Mineral Industries

702 Woodlark Building  
Portland, Oregon  
Coos Bay area

## SOUTHPORT COAL MINE

Mine was opened in 1873 and worked until 1880. It was closed until 1920, since which time it has been in production nearly every winter.

O. E. Larson, of Marshfield, has taken over the mine and is preparing to operate on a scale to permit a cantonment contract. Difficulties with priorities and labor procurement have delayed operation. A temporary bunker is being built and Larson expects to deliver coal in Marshfield, beginning December 7th.

The adit mentioned by Libbey is reported as 2800 feet long. Two rooms are being opened at the face, at present, and the plan is to retreat toward the portal. The "break through" from Hwy. 101 has not been driven, but is contemplated to make available coal reserves, "down the dip". There is a "break through" to Shinglehouse Slough that is sealed off at this time.

Otherwise, the mine is as reported by Libbey. The roof is very low in many places, too low to permit good haulage conditions. The adit shows evidence of a great deal of mining in past years by caved rooms and entries that are unsafe to enter.

Larson plans on a railroad spur to the mine when production really starts.

Ray C. Treasher  
Field Geologist  
December 5, 1942.

CONFIDENTIAL

## DESCRIPTION OF MINES

In the brief descriptions that follow there is included for each property sampled the places in the mine at which samples were taken, detailed sections of the bed at these points, and notations showing what portions of the bed were included in each sample. In addition, descriptions of the mines themselves and the methods employed in mining and preparing the coal at each are given.

## Southport Mine

The Southport mine, operated by James H. Flanagan, is situated 6 miles south of Marshfield in the Coos Bay field of Coos County. Present workings are in the NE $\frac{1}{4}$  sec. 22, T. 26 S., R. 13 W. but the portal is in the SE $\frac{1}{4}$  of the section, at an elevation of 105 feet. The mine is situated 1/2 mile from possible rail and water transportation on the Southern Pacific R.R. and Isthmus Slough, respectively, and the same distance from the highway.

The Southport bed, in which the mine operates, is a member of the Arago formation and at this point strikes N. 20° E. and dips 8° E. The bed was measured and sampled May 27, 1933, by S. H. Ash and May 3, 1939, by M. R. Geer and J. E. Morrison, as described below:

## Sections of Southport Bed in Southport Mine

Section Laboratory No.	A A-90058		B B-40027	
	Ft.	in.	Ft.	in.
Roof, hard, smooth sandstone:				
Bony . . . . .		<u>a</u> 2 $\frac{1}{2}$		
Coal, sulphur streaks . . . . .		<u>a</u> 2		
Coal, firm . . . . .	1	5	1	3
Bony . . . . .		<u>a</u> 1		
Shale parting, sandy, soft . . . . .		<u>a</u> 8		<u>a</u> 8
Coal, firm . . . . .	2	6	1	4
Coal, sulphur streaks . . . . .				1-1/4
Coal . . . . .				8-1/4
Coal, bony, hard . . . . .				3-1/2
Floor, sandstone, overlain by soft shale or bone				
Thickness of bed	5	1/2	4	4
Thickness in sample	3	11	3	8

a Not included in sample

Section A was taken in the Morrisoul room, 2,300 feet from the portal. Section B was taken in 9 room pillar, 1st north entry above the counter, 2,400 feet northwest of the portal. Cover at these points is 60 to 80 feet.



Mining at this property dates back nearly 60 years, and during its life the mine has been developed by a system of drifts, slopes, and inclines aggregating over 6,000 feet in length. The room-and-pillar system of mining is used, with entries or drifts driven roughly on the strike of the bed and rooms turned to the rise. Coal is mined by cutting out by hand the soft shale parting, which is gobbed, and then breaking out the upper and lower benches of coal with picks and wedges. Some black powder is used where necessary.

The output of the mine, which averaged 10 tons per day in 1938, is brought to the tippie in trips of two 1-ton cars, where it is passed over 3-inch round-hole, 3/4-inch bar, and 5/8-inch square-hole screens to produce egg, nut, pea, and slack sizes, all of which are sprayed with water to remove fine-size, adhering impurities that detract from the appearance of the coal.

#### Thomas Mine

The Thomas mine, operated by the Thomas Coal Co., is situated 10 miles south of Marshfield in the Coos Bay field of Coos County, in SE $\frac{1}{4}$  sec. 9, T.27 S., R.13 W., at an elevation of 200 feet. It is 1 mile from a possible rail connection with the Southern Pacific R.R. and a similar distance from the highway.

The Beaver Hill bed in which the mine operates is a member of the Arago formation and at this point strikes N.40°E. and dips 30°E. The bed was measured and sampled at the face of 13 room, 60 feet above the gangway and 600 feet north of the portal, by M. R. Geer and J. E. Morrison, May 5, 1939. Cover at this point was 100 feet: The section of the bed is shown below:

#### Section of Beaver Hill Bed in Thomas Mine

Laboratory No.		B-40028	
Roof, soft shale		Ft.	in.
Coal (immediate roof) . . . . .	<u>a</u>	1	
Clay, firm . . . . .			<u>a</u> 4
Coal, bony . . . . .			<u>a</u> 1-1/2
Clay . . . . .			<u>a</u> 1-1/4
Coal . . . . .		2	10
Bone, soft . . . . .			<u>a</u> 2
Clay, firm . . . . .			<u>a</u> 8
Bone, soft . . . . .			<u>a</u> 2
Coal, some bony . . . . .		1	6
Bone (immediate floor) . . . . .			<u>a</u> 8
Floor, shale			
Thickness of bed		7	6-3/4
Thickness in sample		4	4

a Not included in sample



Southport Mine.

Views of track, tipple,  
and bunker.

## SOUTHPORT MINE

The Southport Mine, operated by James H. Flanagan, is located six miles south of Marshfield and a half mile west of highway 101, in N.E.  $\frac{1}{4}$ , Sec. 22, T. 26 S., R. 13 W. The mine is a half mile from the Southern Pacific Railroad in Isthmus slough.

Mining at this property dates back nearly sixty years. During this interval of time the property has been developed by a number of drifts and at least one slope, probably aggregating over 6,000 ft. in length. The gentle dip of the bed, about  $8^{\circ}$ , has allowed mining to proceed without any very definite plan. In general, however, drifts have been advanced roughly on strike and rooms driven to the rise.

The present operation is through a drift driven slightly west of north, a little up dip; this drift is called by Mr. Flanagan, the counter. At 1,600 feet from the portal an incline is driven to the rise about 400 feet and then turned back roughly on strike. This portion has been called the first north entry above the water level counter. At the time of sampling, the rooms on this entry had been worked out and caved to the gangway to within 300 feet of the incline. It was at this point that the sample was taken in a room pillar which constituted the only active working face in the mine. The face sample taken by Ash in 1933 was probably from a nearby room. The ton sample taken by Morrison in 1938 also came from this section of the mine. The attached sketch, traced from the mine map, indicates the extent and general character of the mining operations.

The Southport bed, which measures about 50", has a hard smooth sandstone roof, and a main floor of sandstone which is overlain by 4 to 18 inches of soft shale. Although locally the roof is traversed by major fractures which appear to penetrate it deeply, it requires a minimum of timber in entries and rooms. The bed consists of an upper bench of firm bright coal about 15 inches in thickness separated from the lower bench by an 8 inch parting of soft sandy clay. The lower bench which varies in thickness from 24 to 30 inches is frequently bony near the floor. In general the bed has a well defined set of cleats which facilitate mining. The center parting of clay is cut out by hand and gobbed, the upper and lower benches are then taken down, principally by hand, using picks and wedges. Some black powder is used.

Haulage is by mules, not Missouri, in two car trips. Rooms are single tracked and cars are pulled to the face singly by a mule.

A number of faults cut the bed, but none of them have sufficient displacement to affect greatly the mining operations. They have, however, caused the entries to vary in their courses to avoid rock work.

At the tippie the coal is separated over a 3" round hole, a 3/4" bar and a 5/8" square hole screen into lump, plus 3" round hole; nut, 3" to 3/4" bar; pea 3/4" to 5/8" square hole; and slack, through 5/8". The coal is sprayed with water over the screens. The products all pass to truck bins from which they are loaded directly into trucks.

## RECORD IDENTIFICATION

RECORD NO..... M020324  
 RECORD TYPE..... X1M  
 INFORMATION SOURCE... 1  
 MAP CODE NO. OF REC..

## REPORTER

NAME..... FERNS, MARK L. (BROOKS, HOWARD C.)  
 AFFILIATION..... DDGMI  
 DATE..... 81 05

## NAME AND LOCATION

DEPOSIT NAME..... THOMAS  
 SYNONYM NAME..... NEW SOUTHPORT

MINING DISTRICT/AREA/SUBDIST. COOS BAY COAL FIELD

COUNTRY CODE..... US  
 COUNTRY NAME: UNITED STATES

STATE CODE..... OR  
 STATE NAME: OREGON

COUNTY..... COOS  
 DRAINAGE AREA..... 17100304 PACIFIC NORTHWEST  
 PHYSIOGRAPHIC PROV..... 13 COAST RANGE  
 LAND CLASSIFICATION..... 01

QUAD SCALE QUAD NO OR NAME  
 1: 24000 COOS BAY (1971)

LATITUDE LONGITUDE  
 43-17-52N 124-13-17W

UTM NORTHING UTM EASTING UTM ZONE NO  
 4794380 400920 +10

TWP..... 026S  
 RANGE..... 013W  
 SECTION.. 22  
 SECTION FRACTIONS: SE 1/4  
 MERIDIAN. WILLAMETTE

ACCURACY OF LOCATION  
 ACCURATE

## COMMODITY INFORMATION

COMMODITIES PRESENT..... COA

COAL

EXPLORATION AND DEVELOPMENT

STATUS OF EXPLOR. OR DEV. 8  
YEAR OF FIRST PRODUCTION. 1914  
YEAR OF LAST PRODUCTION. 1944

DESCRIPTION OF DEPOSIT

DEPOSIT TYPES:

SEDIMENTARY

FORM/SHAPE OF DEPOSIT:

SIZE/DIRECTIONAL DATA

SIZE OF DEPOSIT..... SMALL  
MAX THICKNESS..... 6 FT  
STRIKE OF DREBODY.... N 30-45 E  
DIP OF DREBODY..... 13-16 SE

DESCRIPTION OF WORKINGS  
UNDERGROUND

PRODUCTION

YES

SMALL PRODUCTION

RESERVES AND POTENTIAL RESOURCES

ITEM	ACC	AMOUNT	THOUS. UNITS	YEAR	GRADE	OR USE
1 COA	EST	3121.200	TONS	1953		

SOURCE OF INFORMATION (RESERVES/POT RESOURCES).. ODGMI

GEOLOGY AND MINERALOGY

AGE OF HOST ROCKS..... ED  
HOST ROCK TYPES..... SANDSTONE AND SHALE

LOCAL GEOLOGY

NAMES/AGE OF FORMATIONS, UNITS, OR ROCK TYPES

- 1) NAME: COALEDD  
AGE: ED

GENERAL REFERENCES

1) BALDWIN, E.M. AND OTHERS, 1973, GEOLOGY AND MINERAL RESOURCES OF COOS COUNTY, OREGON: ODGMI BULL. 80, P. 74

RECORD IDENTIFICATION

RECORD NO..... M020317  
RECORD TYPE..... X1M  
INFORMATION SOURCE... 1  
MAP CODE NO. OF REC..

REPORTER

NAME..... FERNS, MARK L. (BROOKS, HOWARD C.)  
AFFILIATION..... DDGMI  
DATE..... B1 05

NAME AND LOCATION

DEPOSIT NAME..... SOUTHPORT

MINING DISTRICT/AREA/SUBDIST. COOS BAY COAL FIELD

COUNTRY CODE..... US

COUNTRY NAME: UNITED STATES

STATE CODE..... OR

STATE NAME: OREGON

COUNTY..... COOS

DRAINAGE AREA..... 17100304 PACIFIC NORTHWEST

PHYSIOGRAPHIC PRDV..... 13 COAST RANGE

LAND CLASSIFICATION..... 01

QUAD SCALE

1: 24000

QUAD NO OR NAME

COOS BAY (1971)

LATITUDE

43-18-12N

LONGITUDE

124-13-12W

UTM NORTHING

4795000

UTM EASTING

401050

UTM ZONE NO

+10

TWP..... 026S

RANGE..... 013W

SECTION.. 22 23; 26 27

MERIDIAN. WILLAMETTE

ACCURACY OF LOCATION

ACCURATE

COMMODITY INFORMATION

COMMODITIES PRESENT..... COA

PRODUCER (PAST OR PRESENT):

COAL

ANALYTICAL DATA

SOURCE REFERENCE.. ALLEN, 1944  
 BTU..... 9880  
 SULFUR..... 0.6  
 ASH..... 8.4  
 FIXED CARBON..... 40.8  
 VOLATILES..... 33.6  
 MOISTURE..... 17.2  
 THICKNESS OF COAL. 30.0 IN

EXPLORATION AND DEVELOPMENT

STATUS OF EXPLOR. OR DEV. 6  
 YEAR OF FIRST PRODUCTION. 1875

DESCRIPTION OF DEPOSIT

DEPOSIT TYPES:

SEDIMENTARY

FORM/SHAPE OF DEPOSIT: BEDDED

SIZE/DIRECTIONAL DATA

SIZE OF DEPOSIT..... SMALL  
 MAX THICKNESS..... 6 FT  
 STRIKE OF OREBODY.... N18E  
 DIP OF OREBODY..... 8E

COMMENTS(DESCRIPTION OF DEPOSIT):

TWO COAL SEAMS ABOUT THREE FEET SEPARATED BY ABOUT 1 FT OF CLAY

DESCRIPTION OF WORKINGS

UNDERGROUND

OVERALL AREA..... 55 AC

COMMENTS(DESCRIP. OF WORKINGS):

SEVERAL THOUSAND FEET OF WORKINGS

PRODUCTION

YES

SMALL PRODUCTION

CUMULATIVE PRODUCTION (ORE, COMMOD., CONC., OVERBUR.)

ITEM	ACC	AMOUNT	THOUS. UNITS	YEAR	GRADE, REMARKS
15 COA	EST	0250.000	TONS	1875-1943	

PRODUCTION COMMENTS..... 20 TON/DAY FOR PERIOD 1925-1943



## RESERVES AND POTENTIAL RESOURCES

ITEM	ACC AMOUNT THOUS. UNITS	YEAR GRADE OR USE
1 COA	EST 1989.000 TONS	1953

SOURCE OF INFORMATION (RESERVES/POT RESOURCES).. ODGMI (1953)

## GEOLOGY AND MINERALOGY

AGE OF HOST ROCKS..... ED  
 HOST ROCK TYPES..... SANDSTONE

## LOCAL GEOLOGY

NAMES/AGE OF FORMATIONS, UNITS, OR ROCK TYPES

- 1) NAME: COALEDO  
AGE: ED

## GENERAL REFERENCES

- 1) BALDWIN, E.M. AND OTHERS, 1973, GEOLOGY AND MINERAL RESOURCES OF COOS COUNTY, OREGON; ODGMI BULL. 80, P. 76
- 2) ALLEN, J.A. AND BALDWIN, 1944, GEOLOGY AND COAL RESOURCES OF THE COOS BAY QUADRANGLE, OREGON; ODGMI BULL. 27 P. 80

DEPARTMENT OF THE INTERIOR  
BUREAU OF MINES

## A—DESCRIPTION OF MINE

- (1) State Oregon (2) County Coos (3) Town Marshfield  
(Post office)
- (4) Mine sample of — (Material; for coal, give classification) (5) Coal field Coos Bay (6) District —
- (7) Mine Southport Drift (a. Name) (b. Kind of opening; if shaft, give depth) (c. Height of opening above sea level) (d. Distance and direction from town)  
N.E. 1/4 Sec. 22 T. 26 S. R. 13 W. (e. Sec., T., and R., if necessary) None (f. Railroad connections) Marshfield (g. Shipping point) Truck Mine (h. State if wagon mine or prospect, and give distance from shipping point) 6 Miles South
- (8) Coal bed Southport (a. Name) Eocene (b. Geologic system) Arago (c. Formation) 8° E (d. Dip; degrees) N 20° E (e. Strike, direction)
- (9) Mining system Room & Pillar (Long wall, room and pillar, panels, etc.) (10) Undercutting No Hand (Hand or machine) (11) Explosives Black Powder (a. Used for coal) (b. Used for roof or floor)
- (12) Operator James H. Flanagan (Name and address) (13) Sales agent Reynolds Dev. Co. Marshfield (Name and address)
- (14) Output per day 10 (Average, gross, or net tons) (15) Max. day's output 12 (During last year) (16) Last year's output 1700 (Gross or net tons)
- (17) Output from advance workings; % 0 (At present) (18) Lifetime of mine 15 (Years estimated) (19) Run of mine, % 0 (Of output shipped) (20) Is coal screened? Yes
- (21) Type of screens Stationary bar & Plate (22) Type of washer None (23) Percent coal washed 0  
+ 3" x h, 3" x 3/4 bar 1/4" - 3/8" s. h.
- (24) Maximum size washed — (25) Sizes produced — (Washed coal) (26) Sizes produced — (Of coal not washed)
- (27) Is coal picked? No (State whether on belt or car) (28) Percent coal coked — (At mine) (29) Sizes coked — (Screenings, crushed, washed, etc.)
- (30) Type and number of ovens — (31) Remarks Workings in N.E. 1/4; Portal in S.E. 1/4  
(Indicate after subject by mark (x) if additional information is given here)

(If this space is not sufficient, use back of card, making reference thereto)

- (32) Can Nos. — (Give numbers of all samples forwarded)
- (33) Laboratory Nos. — (Laboratory to fill in numbers immediately below corresponding can numbers)
- (34) Mine sampled at — points by M. R. Geer & J. E. Morrison on May 3, 1939  
(Number) (Collector) (Office) (Date)

NOTE.—FILL IN ONLY ONE FORM LIKE THIS FOR A MINE. MAIL TO LABORATORY WITH B CARDS

"This company, controlled by James H. Flanagan, is mining in the NE $\frac{1}{4}$  of sec. 22, T. 26 S., R. 13 W., and is reached by traveling five miles south from Marshfield city limits on U.S. Highway 101 and then 0.5 mile west over a plank road. The property, consisting of about 600 acres in secs. 8, 14, 15, 22 and 23 of the above township, is leased from the Southport Land and Commercial Co. which owns approximately 2700 acres in the township.

"Southport Mine: The mine was opened first in 1875 on a bed believed by Diller to be at a higher horizon than the Newport bed, and operations were not very successful. Later, the Newport bed was opened and the then-named New Southport Mine for several years maintained a fairly large production, much of which was shipped to San Francisco by water. In recent years it has been reopened by Mr. Flanagan, and a small output has been sold for local domestic heating.

"The present opening to the mine is through an old slope inclined above horizontal at about 7 or 8 percent and running a little east of north along the bed. Coal is being mined in a room about 3,000 feet from the portal from two benches of coal separated by a clay parting 8-10 inches thick. A section of the bed being mined is as follows: hard sandstone footwall, 28 inches of coal, 9 inches of clay, 24 inches of coal, hard sandstone hanging wall.

"Rooms are opened about 35 feet wide with pillars between about 20 feet wide, with a wider stump on the gangway. Stulls are used in the rooms, but the roof is strong and relatively few are necessary in the section seen. No explosives are used in mining the coal. Cars are hauled to the face of the rooms from a gathering place at the main entry by one mule. Trains of two one-ton cars each are taken out through the main entry by two mules, the driver using brakes for most of the out-going trip. One driver handles the gathering as well as the trips to the bunker so that only seven or eight such trips can be made in eight hours. Production is at the rate of about 10 to 15 tons a day depending on weather conditions which govern the demand. Five men are employed, including a truck driver.

"The coal is washed with a hose on screens at the bunker, and three sizes are made, namely, lump, nut and pea. Most of this coal is hauled to Marshfield and retailed through the Reynolds Development Co.

"Reserves of coal in this leased property are probably large - in hundreds of thousands of tons. By driving an entry 250 feet long from U.S. Highway 101 on Isthmus Slough Mr. Flanagan estimates he could make available over 200,000 tons of coal from above the entry level, in addition to the reserve available in the area being mined at present, estimated by Mr. Flanagan at 600,000 tons.

An analysis of a sample of this coal is given below:

C O P Y  
 Department of Commerce - Bureau of Mines  
Coal Analysis Report

Lab. No. A90058  
 Can. No. D896

Operator: Jas. H. Flanagan  
 Sample of sub-bituminous coal  
 State: Oregon County: Coos Bed: Southport  
 Town: Marshfield  
 Location in Mine: Upper works - in counter or Morrisoul room  
 2300' from portal (old entry)

Method of Sampling: Standard  
 Date of sampling: 5/27/33 Date of analysis: 6/5/33  
 B. of M. Section Collector: S. H. Ash  
 Air-dry loss 3.3

	Coal (air-dried)	Coal (as received)	Coal (Moisture free)	Coal (Moisture and ash free)
Moisture	14.4	17.2		
Vol. matter	34.8	33.6	40.6	45.2
Fixed Carbon	42.1	40.8	49.2	54.8
Ash	8.7	8.4	10.2	
	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
Hydrogen	6.0	6.2	5.1	5.7
Carbon	58.0	56.1	67.8	75.4
Nitrogen	1.3	1.2	1.5	1.6
Oxygen	25.3	27.5	14.6	16.5
Sulphur	0.7	0.6	0.8	0.8
Ash	8.7	8.4	10.2	
	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
Calorific value	Cal. 5678. Btu 10220.	5489. 9880.	6633. 11940.	7383. 13290.
Softening temperature of ash	2080 F.			
Date 6/9/33	(signed) H. M. Cooper, Chemist			

(Ref: Libbey, 38:2-4 quoted)

"The Southport bed, in which the mine operates, is a member of the Arago formation and at this point strikes N.20° E. and dips 8° E. The bed was measured and sampled May 27, 1933, by S. H. Ash and May 3, 1939, by M. R. Geer and J. E. Morrison, as described below:

Sections of Southport Bed in Southport Mine.

Section	A		B	
	A-90058		B-40027	
Laboratory No.	Ft.	in.	Ft.	in.
Roof, hard, smooth sandstone				
Bony . . . . .		<u>a</u> 2-1/2		
Coal, sulphur streaks . . . . .		<u>a</u> 2		
Coal, firm . . . . .	1	5	1	3
Bony . . . . .		<u>a</u> 1		
Shale parting, sandy, soft . . . . .		<u>a</u> 8		<u>a</u> 8
Coal, firm . . . . .	2	6	1	4
Coal, sulphur streaks . . . . .				1-1/4
Coal . . . . .				8-1/4
Coal, bony, hard . . . . .				3-1/2
Floor, sandstone, overlain by soft shale or bone				
Thickness of bed	5	1/2	4	4
Thickness in sample	3	11	3	8

<sup>a</sup> Not included in sample.

(continued)

"Section A was taken in the Morrisoul room, 2,300 feet from the portal. Section B was taken in 9 room pillar, 1st north entry above the counter, 2,400 feet northwest of the portal. Cover at these points is 60 to 80 feet.

Proximate Analyses (as received basis)		
	A-90058	B-40027
Moisture	17.2	16.7
Volatile matter	33.6	33.4
Fixed carbon	40.8	40.4
Ash	8.4	4.5
Sulfur	0.6	0.5

(Ref: Yancey and Geer 40:7,20 quoted)

Mine was opened in 1873 and worked until 1880. It was closed until 1920, since which time it has been in production nearly every winter.

O.E. Larson, of Marshfield, has taken over the mine and is preparing to operate on a scale to permit a contourment contract. Difficulties with priorities and labor procurement have delayed operation. A temporary bunker is being built and Larson expects to deliver coal in Marshfield, beginning Dec. 7<sup>th</sup>.

The adit mentioned by Libbey is reported as 2800 feet long. Two rooms are being opened at the face, at present, and the plan is to retreat toward the portal. The "break through" from Hwy 101 has not been driven, but is contemplated to make available coal reserves, "down the dip". There is a "break through" to Shinglehouse Slough that is sealed off at this time.

Otherwise, the mine is as reported by Libbey. The roof is very low in many places, too low to permit good haulage conditions. The adit shows evidence of a great deal of mining in past years by caved rooms and entries that are unsafe to enter.

Larson plans on a railroad spur to the mine when production really starts.

Ray E. Dressler  
Field Geologist.  
Dec. 5, 1942.

50-16

12/2/42



Southport Coal  
Bechtava

