

# State Department of Geology and Mineral Industries

702 Woodlark Building  
Portland, Oregon

Report by: Ray C. Treasher  
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Visited by: RCT. & F.G. Wells.

## Tillamook County Coal Area

Tillamook County.

Coal was mined in Tillamook County in the late 1800's and early 1900's, at Neakanie Mountain. Diller (96) reported on the coal, indicating it was observed over an area about 5 miles long and a mile or so wide. Allen (41) reported briefly on the same occurrence. No coal has been mined in later years and outcrops and old workings are "lost" in the heavy underbrush. It will be necessary to "face up" outcrops and old workings should be cleaned out, before the coal can be adequately sampled and measured. An unreported coal occurrence at Nestucca Bay was visited.

Previous Work Diller (96) reported as follows:

### LOWER NEHALEM COAL FIELD

The Lower Nehalem coal field is situated north of the Nehalem, near the county line between Clatsop and Tillamook.

In sec. 16, T. 3 N., R. 10 W., occurs an 18-inch bed of coal lying between beds of clay. It is near the south foot of Neakanie Mountain, and is inclined at an angle of 30° southwestward. A short distance farther down the slope is another exposure of coal. It can be traced for 50 feet along the strike and ranges from 5 inches to 14 inches in thickness. It dips at an angle of 30° to the northwest nearly at right angles to that in the other exposure. There may be two beds of coal here, but considering the softness of the associated strata and the difference in position of the coal outcrops, it is not improbable that the lower exposure is only a slide from the upper. The analysis of coal from this locality is No. 11 in the list.

On another branch of Hedge Creek, about 250 yards to the eastward from the locality just noted, two tunnels have been driven by Mr. J. G. Gerritze for Mr. S. F. Pearson. In one of them a 2-foot pocket of brilliant, homogenous, fine-looking coal was found, which yielded the analysis No. 12 in the table.

On Coal Creek, in sec. 2, T. 3 N., R. 10 W., is an 18 inch bed of coal which lies between shales and strikes northeast and

southwest, dipping to the northwest an an angle of 50°. The coal resembles that from section 16, of which it may be a continuation, for a coal of the same character, 22 inches in thickness, is reported by Mr. Frank Steinhauer from section 10, which lies between and a similar if not identical lustrous, black 10-inch coal occurs in section 36 of the next township to the north. It lies between sandstone (above) and shale. Analysis No. 13 shows its composition.

No fossils were found in immediate connection with the coal, so that its age is not definitely known, but it appears to be beneath the tertiary shales exposed near Crawford on the North Fork of the Nehalem.

Sections 16, 10, 2, and 36 are all in a line extending northeast and southwest, and the coal exposed in them may all belong to the same bed. The coal field, so far as known, has a length of about 5 miles. The quality of the coal is good, but its thickness, so far as yet known, nowhere exceeds 22 inches. It occurs in strata so soft as to render timbering generally necessary, and is inclined at a considerable angle. In view of these facts, notwithstanding its good quality and nearness to tide water, above which it rises only a few hundred feet, it can not be regarded as promising commercial importance.

Lower	11	: 808	: 41.26	: 46.81	: 3.85	: 1.30	:Partly brilliant
Nehalem		: 8.96	:	:	:	:	: and coherent
	12	:	: 40.06	: 46.79	: 4.29	: 1.31	: Do
	13	: 8.91	: 41.54	: 47.23	: 2.32	: 0.38	:Sooty, slightly coherent

Lower Nehalem Coal Field, Clatsop County

- 11 Hodge Cr. Sec. 16, T. 3 N., R. 10 W.
- 12 Hodge Cr. Sec. 16, T. 3 N., R. 10 W.
- 13 Coal Cr. SW $\frac{1}{4}$  Sec. 36, T. 4 N., R. 10 W.

Allen (41) visited Tillamook County in 1941 and prepared an unpublished report in the mineral resources. His statement, other than the Diller quotation given above is:

The accompanying analyses of coals are from two of the above localities. By comparison with the analyses given on pages 20 to 23 of the accompanying State Bulletin No. 20, it can be seen that they are well above the average grade of the Coos Bay coals, which have been mined for years. Coal Sample #3 comes from the beach at Neah Kay Nie. It is of an entirely different and better grade and would rank as bituminous rather than as sub-bituminous. It is probable that this is derived from a wreck. It is barely possible that it may occur in older rock exposed below sea level, and eroded by the waves, but this is thought doubtful.

Field Work: Through the efforts of County Judge Harlan Woods and Secretary R. B. Miller of the Tillamook Chamber of Commerce, we were directed to Mr. A. P. Carlson at Wheeler. Mr. Carlson took us to Dave Chambers who knew of an old coal tunnel on Neakanie Mtn. but could not take us to it. We then contacted Mr. Geo. A. Henderson, Rt. 1, Box 105, Nehalem, Oreg. who knew the Coal Creek locality. He had guided Mr. Allen in 1941, but stated that they did not reach the real coal vein, - only an outcrop in the creek. He was not prepared to take us directly to any outcrop.

Dr. Wells and I went north on Hwy. 101 to Cannon Beach in hope that we would see some evidence of coal along the road cuts. No luck,. Later, we heard that coal outcrops along the ocean.

Mr. Miller took us to Oretown, on Nestucca Bay where Mr. John Redberg took us to Barnhart Slough to visit a locality from which he removed blacksmith coal many years ago. Everything was caved and no coal was seen.

Recommendations: As no coal exposures are available, - as brush and timber are so dense that one can pass within a few feet of an outcrop without seeing it, - and as our schedule was very limited, - I recommended to County Judge Woods, as follows:

- (1) Have the outcrops found, (also old workings), as we can get to them with a minimum expenditure of State Dept. personnel.
- (2) Have the outcrops "faced up" so that the coal may be measured and sampled. If information is desired from old workings, these should be opened, drained, and the coal vein made accessible for measurement and sampling. I feel it would be inadvisable right now to dig into fresh coal for a U. S. Bureau of Mines type of sample. (25 ft. from a weathered surface).

(3) Optional: To open outcrops and workings to good bright coal for a U. S. Bureau of Mines type of sample.

(4) When (1) and (2) are done, I felt that our Dept. would be willing to return, cut samples and advise the County Court as to recommended action.

Comparative Cost of Wood and Coal.

Fire wood of almost any grade is selling for about \$12.00 a cord in Aug. 1943. Coos Bay coal is selling for \$9.00 delivered in North Bend. It is interesting to compare the cost per unit of heat, the British thermal unit, abbreviated B.T.u. Figures on the Btu value of wood are difficult to obtain. None could be found for fir, but as oak is classed as a better fuel wood, and figures for oak are available, they are used. The weight of a cord of dry old growth Douglas fir was obtained from a reliable coastwise trucking concern.

	<u>B.t.u's per lb.</u> <u>dry(?)</u>	<u>Wt. per cord</u> <u>dry</u>	<u>B.t.u's per</u> <u>cord</u>	<u>\$</u>	<u>¢ per B.t.u.</u>
Wood	8316	2100 lbs.	17,463,000.	@ 12	0.0000681
Coal	9000(low grade)	per ton of 2000 lbs.	18,000,000	@ 9	0.0000500
Coal	9500(med.low grade)	" "	19,000,000	@ 9	0.0000482

In other words, very low grade coal at \$9.00 a ton costs 73% as much as wood at \$12.00, per unit of heat. Even if wood dropped to \$8.00 a cord, coal would still be slightly cheaper.

On the basis of the above figures, heat could be supplied to Tillamook County residents cheaper by means of Tillamook County coal than it can by wood, under present conditions.

Reference

Diller 96      Diller, J. S., The Lower Nehalem Coal Field: U.S.  
Geol. Survey, 17th. Annual Report, pp. 491-496, 1895-1896

Allen 41.      Allen, John Eliot, Reconnaissance of the Mineral  
Resources of Tillamook County, Oregon: Oreg.  
State Dept. G. & M. I., Typescript, 1941