

# State Department of Geology and Mineral Industries

702 Woodlark Building  
Portland, Oregon

*Yamhill*

## GEOLOGICAL RECONNAISSANCE OF THE GRAND RONDE, OREGON

### Area

Reported indications of oil and coal in the Grand Ronde area of the north-western Willamette Valley were investigated by the State Department of Geology and Mineral Industries in June, 1942.

### Oil

Area No. 1 is in the  $S\frac{1}{2}$  of the  $NW\frac{1}{4}$  of Sec. 2, T. 6 S., R. 8 W., one and one-third miles west of Old Grande Ronde. Exposed in a road cut may be seen beds of sandstone one to five feet thick. In this single exposure an anticlinal structure, the limbs of which dip  $10^\circ$  north and  $3^\circ-10^\circ$  south, is exposed. Several faults, the major ones being strike faults, are very nearly vertical. These faults are offset by later bedding faults. Displacement is not over 2 feet in any case. Two light colored and highly weathered dikes, vertical and striking east-west are cut by the faults. The inference can therefore be made that deformation was subsequent to perhaps shortly after, volcanism.

Other outcrops in the  $NW\frac{1}{4}$  of Sec. 2, T. 6 S., R. 8 W., along the South Yamhill River and in a ravine north of the highway indicate an anticlinal structure trending generally east-west. In this area there is no definite closure of this anticline.

One bed exposed in the road-cut on the highway was composed of dark micaceous sandstone. It appeared that this might be oil impregnated, but samples taken to the laboratory were tested by a method sensitive to .05 of one per cent oil content. The test indicated the absence of oil, the coloration must therefore be due to carbonaceous material.

Area No. 2 is in the  $SE\frac{1}{4}$  of the  $NW\frac{1}{4}$  of the  $NW\frac{1}{4}$  of Sec. 3, T. 6 S., R. 8 W. Brown shale is exposed in road cuts and south of the Midway Mill. Blue shale was seen in the excavated material taken from the mill pond at the Midway Mill. The channel of the South Yamhill River is at this place cut into valley fill and no bed rock out-drops were found on it. The weathered condition of outcrops made structural study impossible. No oil indications were found.

### Summary of Oil Prospects

A definite structure was found in Area No. 1. No closure of the structure is indicated and for that reason no causative factor for the localization of oil at this point. The bed tested specifically for oil was found to contain none.

No structure or oil indications were found in Area No. 2.

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## Coal Prospects

Coal was reported to have been discovered in a road cut 9 miles west of Willamina on State Highway No. 14, in the west  $\frac{1}{2}$  of Sec. 1, T. 6 S., R. 8 W. This road cut was found and its entire length prospected for coal. Only brown to gray shale was found and no indication of coal or coaly sediments. This report of coal must be placed in the category of unfounded rumor.

## Other Prospects

Two other areas of commercial minerals were reported. One deposit was reported to be ochre. It is located on Kitten Creek, a tributary of the South Yamhill River, and is reached by a dirt road going two miles northwesterly from State Highway 14. The deposit was found to be not ochre but yellow clay of no value except for common brick.

The other area indicated is near the summit of the Coast Range on State Highway 14. Blue clay shale bedrock and buff clay shale float was found but no minerals of commercial value.

## General Summary

A study of outcrops along State Highway 14 from Valley Junction to Dolph was made. Also trips across the adjacent country and along the country roads. The area is mainly shale of Miocene Age\* surrounded by gabbroid intrusives and basalt, both intrusive and extrusive. Igneous rocks both as sills and as dykes have penetrated the shale throughout the area.

In none of the outcrops of shale, sandstone, and basalt, were oil, coal, or other commercial minerals found.

## Informants:

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\* Chester W. Washburne, Reconnaissance of the Geology and Oil Prospects of Northwestern Oregon, U. S. Geological Survey Bulletin 590, 1914, pp. 85.