

COPY

Tillamook County

STATE DEPARTMENT OF GEOLOGY AND  
MINERAL INDUSTRIES

1069 STATE OFFICE BUILDING  
PORTLAND 1, OREGON

February 25, 1965

Mr. James VanDomelen  
Oregon State Fish Commission  
307 State Office Building  
Portland, Oregon

Dear Mr. VanDomelen:

This is in regard to the field inspection made with you to the Gold Creek fish hatchery near Tillamook on February 23, 1965, for the purpose of inspecting a water well site. The water is to be for domestic use only.

The area is located in the NE $\frac{1}{4}$  of the NE $\frac{1}{4}$  sec. 1, T. 2 S., R. 9 W., on the Trask River at the junction of Gold Creek.

General geology of the area

The oldest rocks in the area are called the Tillamook Volcanic Series. They crop out in the stream valley a few hundred feet west of the fish hatchery and to the east are extensive throughout the central Coast Range. They are composed of basalt flows, pillow lavas and breccias of varying degrees of alteration, and associated basaltic sandstones, shales and tuffs of marine deposition. The age of these rocks is variable ranging from mid-Eocene to uppermost Eocene.

Overlying the Tillamook Volcanics in some areas to the west is the Nestucca Formation of upper Eocene age. The Nestucca Formation is predominantly volcanic flows but also contains tuffs and breccias and interbedded marine rocks. West of the area, the younger overlying marine sandstone and shale dip westward.

Structure

The Tillamook Volcanics have a general westerly dip in this area. The interbedded volcanics and sediments cropping out to the east of the hatchery occur at depth beneath the hatchery. Lavas and sandstones usually have

porous zones and therefore should yield water, but the irregularity of the strata with regard to structure and porosity would make a prediction as to depth or quantity of water hazardous.

Complicating the picture is the large prehistoric slump block just south of the hatchery. The slumped area extends south of the upper road to the steep scarp and covers twelve or more acres. Part of the slide has been terraced by the stream and is overlain by river terrace gravels which could provide water if tapped favorably.

The proposed location for drilling the well offers several possibilities. First, the gravel strata which appears to be present at about 40 feet depth or less could supply water but may be seasonal. Second, the slump block itself could have seams and pockets having considerable water, and if these fail to produce, the underlying lavas should provide ground water, possibly within 150 feet of the surface.

There is no assurance of water but the indications are favorable. Since the purpose of the well is for domestic water only, it is likely that several gallons per minute can be obtained from the site.

Sincerely yours,

H. G. Schlicker  
Geologist

HGS:lk