

STATE ENGINEER
Salem, Oregon

Well Record

STATE WELL NO. 5/1-2J
COUNTY Clackamas
APPLICATION NO. GR-953

02238

GR- 1547

CLAC

OWNER: Frank E. Morris

MAILING
ADDRESS:

LOCATION OF WELL: Owner's No.

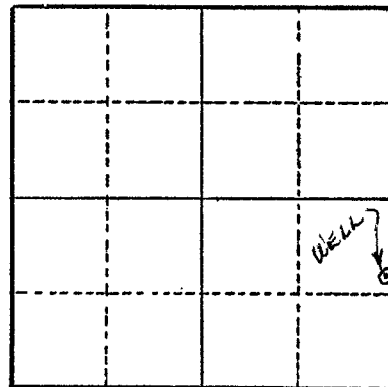
CITY AND

STATE: Molalla, Oregon

NE 1/4 SE 1/4 Sec. 2 T. 5 S. R. 1 E. W.M.

Bearing and distance from section or subdivision

corner 1560' N. & 100' W. from SE cor. Sec. 2.



Section 2

Altitude at well Approx. 250'

TYPE OF WELL: Drilled Date Constructed 1950

Depth drilled 78' Depth cased 78'

CASING RECORD:

6"

FINISH:

4 perforations to the ft. & 4 rows from 70 to 76 ft.

AQUIFERS:

WATER LEVEL:

20'

PUMPING EQUIPMENT: Type Peerless jet H.P. 2
Capacity 25 G.P.M.

WELL TESTS:

Drawdown 50 ft. after hours 80 G.P.M.

Drawdown ft. after hours G.P.M.

USE OF WATER Irrigation Temp. °F. , 19

SOURCE OF INFORMATION GR Record

DRILLER or DIGGER John Beck

ADDITIONAL DATA:

Log Water Level Measurements Chemical Analysis Aquifer Test

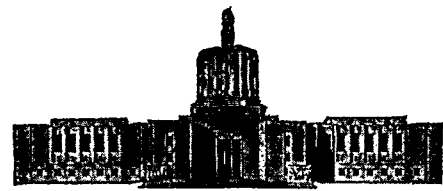
REMARKS:

Log: Soil 0 to 22 ft.
Round river rock
& sand 22 to 70 ft.
Small pea rock &
sand 70 to 78 ft.

Irrigation of 4 acres.

5/1-39
Luckema

2-3F515
Marquinn



251 FINANCE BUILDING
170 12TH STREET S.E.

STATE OF OREGON
STATE ENGINEER
WATER RESOURCES DEPARTMENT
SALEM

REFER TO
FILE NO. _____

August 28, 1959

Mr. Lewis A. Stanley
State Engineer

THE SCHNEIDER-BARTH WELL INTERFERENCE PROBLEM

The stock and domestic well of Mr. and Mrs. Albert Barth is located in the NW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 9, T. 5 S., R. 1 E. W. N., Clackamas County, Oregon. It is a 6-inch well that was drilled to a depth of 66 feet, and has been in use since 1927. Until July 1959, the Barth well has been operated with a pump intake at 45 feet. Mrs. Barth reported that on July 28, 1959, Mr. Martin Schneider, Jr. began pumping his irrigation, which is located approximately 700 feet North from the Barth well. Within 24 hours after the Schneider well began operating, there was such a noticeable lowering of water level in the Barth well that they had the pump intake lowered to 61 feet on July 31, 1959. On August 26, Mr. Schneider had some work performed on his pumping equipment. Within a relatively short time the pump on the Barth well began sucking air. When this well was visited on August 28, 1959, it could be operated only a few minutes at a time without sucking air, and they were unable to obtain sufficient water for their domestic use and to water their 100 head of sheep. The Barth well is located inside their garage and it cannot be deepened without the difficult task of moving the garage.

The Martin Schneider, Jr. well is a 90-foot well located in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 4, T. 5 S., R. 1 E. W. N. It was drilled in 1954. The log is as follows:

Soil	0	to	2 feet
Clay	2	to	30 feet
Solid Rock	30	to	90 feet

The static water level on July 14, 1959, was reported to be 30 feet below land surface, and the well was tested at 235 gpm. The drawdown at this pumping rate is not known. Mr. Schneider made application (G-1536) on July 14, 1959, for a permit to appropriate .5 cfs for the irrigation of 66.7 acres. The permit (G-1402) was approved on August 20, 1959.

COPY

The Schneider well was visited on August 28, 1959, and was found to be pumping in the order of 100± gpm. No one was at home so I left a card informing Mr. Schneider that I would contact him during the following week in regard to a pumping test.

TENTATIVE CONCLUSIONS

1. The operation of the Schneider irrigation well has lowered the water table at the Barth well to a position where they are having great difficulty in obtaining even a small supply of water.
2. The exact amount of interference between these two wells is not known, however, it could be determined from a controlled pump test.
3. It is probable that the Barth well would furnish an adequate domestic supply if it could be deepened an additional 25 feet and a larger horsepower pump installed.
4. A reduction in the pumping rate on the Schneider irrigation well, would allow the water level in the Barth well to recover to a position where they could obtain an adequate domestic supply without further alteration of their well.

The problem, however, assuming the tentative conclusions prove to be correct, is what should be done by this office in this and similar situations.

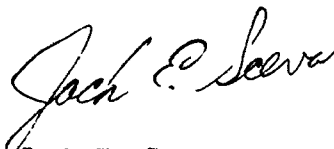
ORS 537.777 states that when "it is necessary in order to secure the equal and fair distribution of ground water in accordance with the rights of the various ground water users, the State Engineer shall regulate or cause to be regulated the controlling works of wells and shall distribute ground water in such a manner as to secure equal or fair distribution." If the control works on the Schneider well are regulated to a position where the Barth well can be operated, we have thereby established the "lowest permissible water level" at the Barth well. Such a determination would usurp the courts function as the "lowest permissible water level in each ground water reservoir" is one of the determinations to be made in an adjudication. (ORS 537.685)

The policy set forth in ORS 537.525 that "Beneficial use without waste, within the capacity of the available sources, be the basis, measure and extent of the right to appropriate ground water" would imply that the "capacity of the available sources" is the limiting factor in the development of a ground water reservoir. In the development of a ground water reservoir the older wells generally were drilled only to a depth necessary to furnish the supply required. As development continues the position of the water table declines and the older wells may become inoperative. This condition does

not necessarily mean that the capacity of the ground water reservoir has been attained, but that deeper penetration into the ground water reservoir by the older wells is necessary. The owners of these wells have enjoyed the privilege of developing ground water from the top of the ground water reservoir, but is this privilege one that is protected by a water right?

In the determination of a "critical ground water area" under ORS 537.730, an area may be determined as being critical when the wells of two or more ground water claimants or appropriators within the area of question interfere substantially with one another. In the Schneider-Barth problem, the operation of the Barth well for domestic purposes could not substantially interfere with the Schneider irrigation well. As only the operation of the Barth well is being interfered with, it is doubtful that this situation could be determined as being critical on the basis of well interference.

It is my belief that the individual appropriator must maintain his own point of diversion to a sufficient depth in the ground water reservoir so that he may continue the appropriation of the water to which he is entitled. Only when the capacity of the available supply has been determined in a critical ground water area determination or the "lowest permissible level" and the "serviceable methods of withdrawing the water" have been determined in an adjudication, will we be in a position to regulate and distribute the ground water supply. This procedure may not seem entirely fair to those individuals who constructed their wells many years ago and are now forced to deepen their wells and install larger horsepower pumps in order to secure the same amount of water. These individuals, however, have for these many years enjoyed the privilege of appropriating ground water from the top of the ground water reservoir. The maximum beneficial use of our ground water resources within the capacity of the available supply will make the deepening of such wells inevitable.



Jack E. Soeva
Geologist