

February 9, 1967

*Jefferson
County*

Mr. John B. Hinchey
Lake Chinook Village and Air Park
P.O. Box 454
Madras, Oregon 97741

Dear Mr. Hinchey:

Your letter of Feb. 3, 1967 to our Portland Office for ground water information has been forwarded to me for comment.

A study of the ground water of the Middle Deschutes River Basin was made about 1925 by Harold T. Stearns and the results are in U. S. Geological Survey Water Supply Paper 637-D. This publication has information on the geology, ground water table, aquifers, quality of the water, and the wells that were present then. The geologic map shows that your property is underlain by the Deschutes formation:

"Horizontally bedded and partly consolidated sand, silt, gravel, and stratified fluviatile deposits of volcanic materials; volcanic debris, mostly basic, resulting from ash showers of volcanoes; and a few beds of diatomaceous earth; several intercalated basalt flows, the lowest one called the Pelton basalt member; the highest flow which overlies the sedimentary beds, called the rim-rock basalt."

Contours of the water table shown on the geologic map show that in 1925 the water table near Grandview was about 1800' elevation. I am sure the impoundment of Chinook Lake by Round Butte Dam has had a stabilizing effect on the water table since then and would tend to elevate it.

The slaggy porous bottoms and tops of the intercalated basalt flows will probably be the best aquifers for ground water in the vicinity of Grandview and if a well can intersect one of these in the saturated zone it should furnish appreciable quantities of water.

I am sure by this time Mr. Bartholomew of the State Engineer's office will have new data that will help you in selecting the location of your well.

Sincerely yours,

NVP:amj
cc:H.M.Dole

Norman V. Peterson

COPY

STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

1069 STATE OFFICE BUILDING
PORTLAND, OREGON 97201

February 6, 1967

Mr. John B. Hinchey
Lake Chinook Village and Air Park
P.O. Box 454
Madras, Oregon 97741

Dear Mr. Hinchey:

This is in reply to your letter of February 3 in which you ask our advice on the proposed drilling of a well at your property.

Ground water is under the jurisdiction of the State Engineer and not the State Geologist as it is in Missouri. Mr. William Bartholomew, whom you contacted at an earlier date in the State Engineer's office, is the head of the Ground Water Section of the State Engineer's office. It is that office that collects information on wells and issues permits for drilling. They too are the ones who collect the cuttings and file the logs.

Our office, the Department of Geology and Mineral Industries, is concerned with mineral deposits, development of terrain unique to the State, general geologic mapping, engineering geology, and practically every other branch of geology and mineral resources except ground water. With the formation of the State Water Resources Board in Oregon several years ago by the State Legislature, any responsibility which we might have had on ground water was definitely severed. Consequently I feel that your inquiry should be directed to the State Engineer's office. Nevertheless I am forwarding your letter and a copy of this letter to Mr. Norman V. Peterson, District Geologist in our Grants Pass office, who has considerable information on the volcanics of central Oregon. I am sure if he can give you any help he will do so.

Sincerely yours,

Hollis M. Dole
State Geologist

HMD:jr

cc Norman V. Peterson



LAKE CHINOOK VILLAGE
AND
AIR PARK

LAKE CHINOOK, OREGON

February 3, 1967

P. O. BOX 454
MADRAS, OREGON 97741

State Geologist, State of Oregon
1069 State Office Bldg.
1400 SW 5th Ave.
Portland, Oregon 97201

Dear Sir:

We are preparing to drill an 8" well here at Lake Chinook Village, which is located in the northeast quarter of Sec. 20, T 12 S R 12 E W M Jefferson County, and formerly referred to as the "Grandview" area. The desired site of the well for power convenience and use, is about $\frac{1}{2}$ mile west of the Deschutes Rim of Lake Chinook, elevation 2675⁺.

When we started the development of our project two years ago, we had a conference with Mr. Cliff Wheeler, State Engineer, and Mr. Wm. Bartholemew, in Salem, regarding the feasibility of drilling for water at that time. They recommended that we wait until the lake had been filled to capacity for two years before drilling, as the underground water table would undoubtedly be affected by the new lake.

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There is only one drilled well in our vicinity, being on the corner of Sec. 23, T 12 S, R 11 E, W M Jefferson County. We are informed that a log of this well was filed with the State, and that it was not completed, at the request of the owners. The nearest drilled wells other than the above, are: one at Fly Lake Ranch about 10 miles northwest of us, and one at Squaw Flat, about 10 miles southwest.

In as much as there is so little information from wells in this area, we are writing to ascertain if you have any information that would assist us in our efforts to develop a good well at our Village. We feel that an accurate log of any well we drill should be made, as undoubtedly there will be many other wells drilled in this area in the near future and such information would be valuable to all concerned.

In response to inquiry of my brother, Norman S. Hinchey, Head of the Department of Earth Sciences, Washington University, St. Louis, Mo, I received a letter from which I quote:

"Even though well records may be rare in your area, your State Geologist may be able to give some sound advice. In Missouri, individuals supply the State Geologist with their location by Section, Township and Range. You can add your elevation Ask him if he can give you any estimates as to:

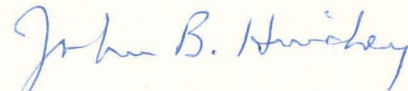
1. How deep you might expect to have to drill to get
2. how much water of
3. what quality. (chemical-mineral and sanitary quality) and
4. how deep casing should be set beneath the surface to shut out possibly contaminated surface water and/or to protect the pump.

In Missouri, we have the driller save samples of the rock cuttings at five- or ten-foot intervals as the drilling proceeds. These cuttings are sent to the State Geologist when the well has been completed, from which he can prepare a log from the examination of the samples. The Missouri State Geologist provides the owner and/or driller with small, tagged bags for this purpose. The driller is also supplied with a small log-book in which he notes depth to casing-seat, sizes of hole drilled, depths at which water entered the hole, final static water-level upon completion of the well.....production capacity of well, etc."

It would seem from conversation with several drillers in our area, that they are not too familiar with the procedure of collecting accurate data on the wells they drill, and we are therefore seeking whatever advise and assistance you can give us, as well as seeing that the information on our well is made available to others who may need it in the future.

Any cooperation you can give us will be greatly appreciated.

Very truly yours,



JOHN B. HINCHEY

JBH/d

RECEIVED
FEB 6 1967
MISSOURI DEPT. OF GEOLOGY
MINERAL INDS.