CIRCULAR 4.

NORTH DAKOTA GEOLOGIC SURVEY

FRANK C. FOLEY, DIRECTOR

IN COOPERATION WITH THE

WORKS PROGRESS ADMINISTRATION

THOMAS H. MOODY, DIRECTOR FOR NORTH DAKOTA

INSTRUCTION'S

OR RECORDERS IN WELL SURVEY OF NORTH DAKOTA

By
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GRAND FORKS, N. DAK.
MARCH 1, 1938
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INSTRUCTIONS FOR RECORDERS

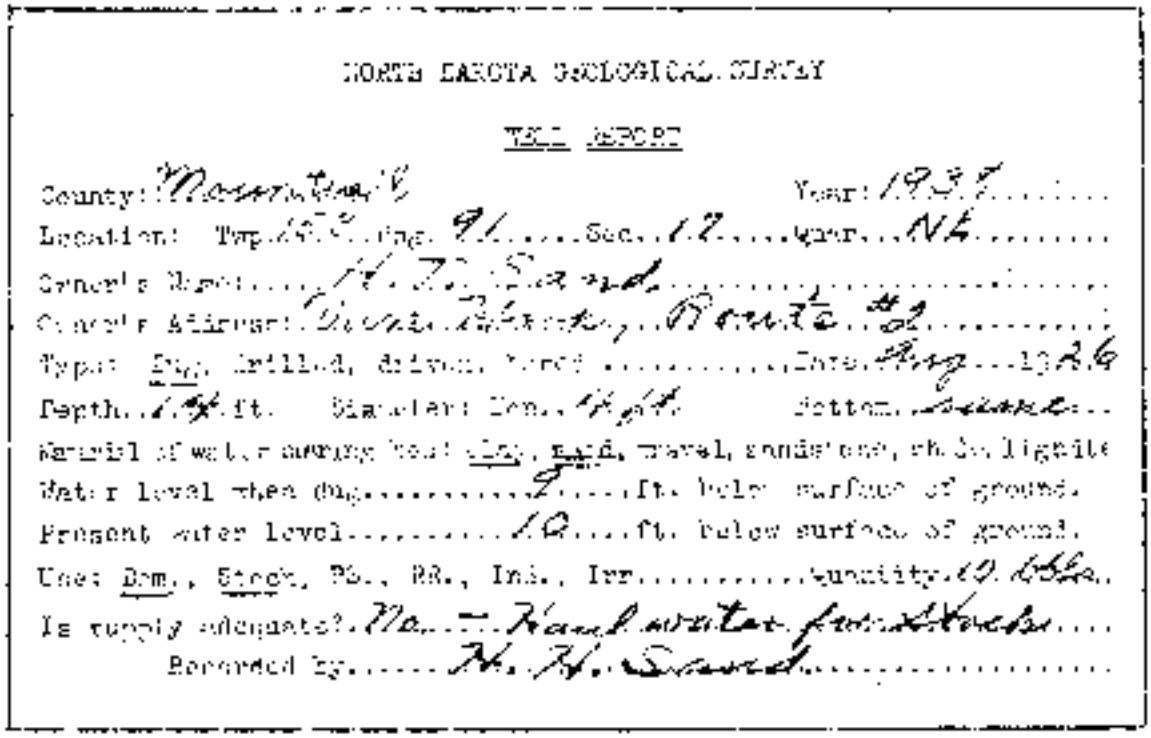
North Dakota Well Survey
Frederic W. Voedisch, Supervisor

The North Dakota Geological Survey in cooperation with the Works Progress Administration and the County Assessors is undertaking a survey of all wells in the state. The object of this study is to obtain the depth and construction features as well as the yield of a11 wells. When the survey is completed a card index of nearly all the wells in the state will be maintained at the headquarters of the Geological Survey. Private owners, well drillers, and others interested will be able to obtain information on the common depth, type, and yield of wells in any locality simply by writing to the state geologist at the University in Grand Forks.

The value of the study as well as any specific information for individual localities will depend on the completeness of the survey and accuracy of the information on each well. It is therefore desirable for recorders to obtain as much information as possible on every well in the townships covered by them.

Many recorders will be cooperating in this study, so in order that the information on wells may be uniform, these instructions should be followed in recording the data on individual wells.

Each recorder will be provided with a supply of "Well Report" forms (see Fig. 1.) to be used by him in recording the information on individual wells. A SEPARATE CARD SHOULD BE USED FOR EACH WELL EVEN THOUGH THE WELLS ARE LOCATED ON THE SAME LOT 0R QUARTER. The card should be filled in as follows:



NORTH DAKOTA GEOLOGICAL SURVEY

WELL REPORT

(1) County: Mountrail Co. Year: 1938

(2) Location: Twp. 153 Rge. 91 Sec. 17 Qtr. NE

(3) Owner's Name: H. T. Sand

(4) Owner's Address: Van Hook, Route #2

(5) Type: Dug, Drilled, Driven, Bored Date: Aug. 1926

(6) Depth: 14 ft. Diameter: Top 4 ft. Bottom 4 ft.

(7) Material of water bearing bed: clay, sand, gravel, sandstone, shale, lignite

(8) Water level when dug: 2 ft. below surface of ground.

(9) Present water level: 10 ft. below surface of ground.

(10) Use: Dom., Stock, Pb., RR., Ind., Irr. Quantity: 10 bbls.

(11) Is supply adequate? Yes. Hard water for Washing

Reported by: H. T. Sand

Fig. 1. Well Report

Line (1). Give name of county and year reported. Sample report shows a well in Mountrail County reported in 1938.

Line (2). Give location of well by township, range, section and quarter. Sample report shows a well in Township 153, Range 91, Section 17, Northeast quarter.

Line (3). Give owners name and initials. Sample report shows owner to be "H. T. Sand."

Line (4). Give owners post office address. Sample report shows this to be "Van Hook, Route #2."

Line (5). Show type of well by underlining or circling the proper type, and the date the well was made. Sample report shows that well is a "dug" well completed in "Aug. 1926."

Line (6). Show depth and diameter of the well (both top and bottom). Sample report shows that the well is "14 feet deep", that the well is round, and that the top and bottom are both "4 feet in diameter." If well is not a round well the recorder

should write in the dimensions of the well, such as "4 feet square" or "3 ft. x 4 ft." If the dimensions of the well at the bottom are different indicate the dimensions in the space provided.

Line (7). Show the material of the water bearing bed by underlining a11 of the different types of rock which are present in the material from which the water is derived. This is usually the deepest material penetrated in sinking the well. When more than one type is present show the predominate type by double underlining. Sample report shows the material at the bottom of the well to be a mixture of "sand and clay" but mostly sand.

Line (8). Indicate how far the water level was below the surface when the well was dug. Sample report shows that the water normally stood at "9 feet below the surface" when the well was dug.

Line (9). Indicate how far the water level is below the surface at the present time. Sample report shows that the water normally stands at "10 feet below the surface" at the present time.

IMPORTANT - In questions 8 and 9 it is important that the distance from the ground surface to the water surface be reported and not the depth of the water. If the water level is at the surface this figure is zero; if the well is dry this figure is the depth of the well, etc.

Line (10). Indicate use which is made of the well; that is whether the water is used for Domestic (Dom.), Stock, Public Supply (P.S.), Railroad (R.R.), Industrial (Ind.), or Irrigation (Irr.) purposes.

If well is "not used" or "abandoned" indicate this in space provided. Show also, if possible, the yield of the well in barrels or gallons per day. If this is not possible show the number of head of stock the well will take care of. Sample report indicates that the well is used for "domestic and stock" and that about 10 barrels may be pumped each day.

Line (11). Indicate whether the supply is adequate for normal demands. Report conditions exactly as they are. If the supply is more than adequate indicate this in the space provided. If

the supply is inadequate indicate whether the owner or tenant hauls water. Sample report shows that well is "Inadequate" and that "water is hauled for stock."

Line (12). Recorded by..... Recorder should sign his name or initials in the space provided.

Springs should be reported on the same record forms as for wells. On line 5, in the space provided for "Type of Well", write "spring". The date, in the same line, is not necessary unless the spring has been developed. The depth and diameter on line 6 are not necessary unless the spring has been developed. The material of the water bearing bed should be given when known. Water level when dug and present water level are not necessary, but indicate instead the original flow and the present flow if possible. Use, quantity and adequacy should be filled in the same as for wells.

It will help greatly in tabulating results if completed well record forms are kept in order as much as possible as to townships and sections. Completed forms should be returned to your County Auditor who will forward them to the Geological Survey at Grand Forks, North Dakota.