34326

Recvd 1-7-94

# DRILLER'S NOTEBOOK

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**WELL RECORD**

Driller Layne - Western Co

Address

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Owner City of Postville IA.

Address

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Iowa Department of Natural Resources
**GEOLOGICAL SURVEY BUREAU**
123 North Capitol Street
IOWA CITY, IOWA 52242
**(319) 335-1575**

## DRILLER'S NOTE

It is important that a driller's notebook, filled out as completely as possible, be sent to the Iowa Geological Survey at the completion of each hole. A number of drillers have found it convenient to string samples from a single well on a heavy wire and attach the log book to them. A hole has been punched in the log book for this purpose.

Sample sacks and log books will be furnished by the Geological Survey. A copy of the log book will be made and returned if desired by the driller.

## SUGGESTIONS TO DRILLERS

1. Samples should be taken from each bed passed through, and never more than 5 feet apart, even in the same bed.

2. Samples should not be washed, except to remove excess drilling mud, as washed samples may give a wrong idea of the character of the bed.

3. Fill out the label on each sample bag with the name of the well and the depth interval which the sample represents.

4. Make frequent use of the "Description" column to explain the material being drilled.

5. Note depth and thickness of all water-bearing layers.

6. Note the quality of the water from each layer: as hard, soft, salty, alkaline, or sulphur bearing.

7. Note height to which water from each layer rises in well, and give flow or capacity in gallons per minute.

8. Fossils, such as oyster, clam, and other shells, are important and should be placed in bags with the material with which they are found and carefully labeled as to the depth from which they were obtained.

9. If you do not understand what is wanted, or desire information on any point, write to the Iowa Geological Survey, Iowa City, Iowa.

10. Samples may be boxed and sent to IOWA GEOLOGICAL SURVEY, IOWA CITY, IOWA, EXPRESS COLLECT.

**The Iowa Geological Survey desires to assist and cooperate with owners and drillers in every way possible, and will be glad to answer questions and assist in the solution of problems at any time.**

A-7397

T96 R6W sec 29 DADD
elev 1180

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## WELL RECORD

Well is located ____ N/S miles and ____ E/W miles from N/S ____ E/W

____ in ____,
(Nearest Town) (County)

in the ____ ¼ ____ ¼ Sec. ____ T. ____ R. ____

Owner Postville, IA. Well No. #5

Postoffice address ____

Contractor ____

Address ____

Driller ____

Well begun ____, 19____;

completed ____, 19____

Rig used—Cable, Rotary, Jet, or ____

Depth of well 1072 (Feet)

Size of hole (note total amount of each size) 601.50

14" Casing 12½ to 1072

Main water supply at ____ (Feet below surface)

Final water head ____ (Feet above or below surface)

Is well pumped? ____

Yield ____ (Gallons per minute)

Water level when pumping ____

Position of well ____ (Upland, valley, side hill, etc.)

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| Date and Time | Water Level | SOURCE OF WATER | | Production in Gallons per Minute | Pumping Level |
|---|---|---|---|---|---|
| | | Depth | Type of Rock | | |
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**NOTE: Water levels should be recorded at time of change AND at regular intervals; for example each morning before drilling starts or at the end of each 100 feet of drilling.**

## RECORD OF PERMANENT CASING

| Size Pipe | Amount of Pipe | Depth to Bottom of Pipe | Depth to Top of Pipe | Type* and Weight of Pipe | DIAGRAM OF WELL |
|---|---|---|---|---|---|
| 24" | 71.30 | | | | |
| 14" | 60.50 | | G.L. | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

*As cast, wrought iron, steel, concrete, etc.

Is screen used?_____ Diameter_____ (Inches)

Length_____ (Feet) Depth to bottom_____

Depth to top_____ Slot size_____

Are packers or seals used?_____

Kind _____

Where used_____

Kind of pump_____ Dia._____ (Inches)

Capacity of pump_____ (g.p.m.)

Power used_____ (Kind and amount)

Depth to bottom of pump line_____feet,

including_____feet tailpiece.

Remarks on construction of well_____

_____

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| SAMPLE NO. | DEPTH From | DEPTH To | THICKNESS | DESCRIPTION OF BEDS<br>KIND OF ROCK, COLOR, HARD OR SOFT, WATER, ETC. |
|---|---|---|---|---|
| | 0 | 5 | | Top Soil Clay |
| | 5 | 30 | | Yellow Clay |
| | 30 | 45 | | Brown Wheatthered Limestone |
| | 45 | 67 | | Green, gray Shale - till |
| | 67 | 180 | | Shale - Dolomite |
| | 230 | 280 | | L gray - White Limestone |
| | 280 | 305 | | gray Sandy Limestone |
| | 305 | 390 | | L - gray - White Limestone |
| | 390 | 415 | | SAndy Limestone |
| | 415 | 430 | | Blue SHALe |
| | 430 | 445 | | gray - Br. White Limestone |
| | 445 | 450 | | Blue SHALe |
| | 450 | 475 | | Limestone - Dolomite - SHALe |
| | 475 | 490 | | Brown Limestone Penteration Rate 12-15 Per ft. |
| | 490 | 555 | | Blue Shale - SAndstone Penteration rate 1-2 min per ft. |
| | 555 | 635 | | gray - White limestone |
| | 635 | 655 | | SAndstone gray Dolomite traces green Shale |

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| SAMPLE NO. | DEPTH From | DEPTH To | THICKNESS | DESCRIPTION OF BEDS — KIND OF ROCK, COLOR, HARD OR SOFT, WATER, ETC. |
|---|---|---|---|---|
| | 655 | 860 | | D-L gray - Brown Dolomite - Chert |
| | 860 | 885 | | L-gray Dolomite - Sandstone |
| | 885 | 900 | | L-D gray Sandstone Penetration rate 3 - min ft. |
| | 900 | 952 | | Sandstone fine loose Penetration rate 1 min 4 secs per ft. |
| | 952 | 960 | | D gray Sandstone (Harder) |
| | 960 | 990 | | gray Sandy Dolomite |
| | 990 | 1040 | | Dark gray Dolomite |
| | 1040 | 1070 | | gray Br. Dolomite |