

IOWA GEOLOGICAL SURVEY
In Cooperation with U. S. Geological Survey

W-4898

RECORD OF WELL

Location:

Town: Ottumwa (NE)
(SW): County Wapello
sec. 25 T 72 N., R. 14 W. Twp.

Well name and number Deere and Company test well No. 1 (1951)

Owner Deere and Company Address Ottumwa, Iowa

Tenant _____ Address _____

Contractor C. L. Jennings Address New London, Iowa

Drillers Mosby

Drilling dates April 23-27, 1951

Well data:

Elevations: Drilling curb 639 feet; Land surface 639 feet

Determined by Deere and Company

Topographic position Flood plain Des Moines River

Total depth: Reported _____ feet, Measured 24 feet

Drilling method Cable tool

Hole and casing date 22.5' of 8-inch pipe from +4.2 feet to 18.3 feet. 5 feet of 6-inch screen (10 slot) from 17.5 feet to 22.5'

I Well abandoned, casing and screen removed after pumping test of April 27, 1951

Original depth to water 10.7 ft. ^{above} land surface Date April 24, 1951

Original elevation of water level 628.28 ft.; Source of data observation

Sources of water: Principal sand & gravel ^{from 14 to 22.5 feet}; Others no others

CASING DIAGRAM

LOG

Vertical scale _____



0-12 : Artificial fill

12-14 clay

14-22.5 sand and gravel

22.5-24 shale



Production data: _____ Date April 27, 1951

Static depth to water 15.15 Measuring point T. of casing 4.2' above
Pumping level 21.75 at 40-47 g.p.m.

Specific capacity 6.7 g.p.m. per ft. drawdown; Temperature 58 °F.

Pump data; Type pump Centrifugal Column Dia. _____ Length 27.5
Cylinder or bowls: Dia. _____ Length _____ Suction pipe _____

Power Gasoline Airline _____

Estimated rate of production: _____ g.p.m. for _____ hrs. a day

Use of water Testing

WATER ANALYSES (in parts per million)

Date sampled	<u>Apr 27, 1951</u>	_____	_____	_____
Sampled by	<u>W. E. H.</u>	_____	_____	_____
Total solids	_____	_____	_____	_____
Insoluble matter	_____	_____	_____	_____
Alkalinity (Meo)	_____	_____	_____	_____
Alkalinity (Phn)	_____	_____	_____	_____
pH	_____	_____	_____	_____
Fe ₂ O ₃ -Mn ₂ O ₃ -Al ₂ O ₃	_____	_____	_____	_____
Alkali as sodium	_____	_____	_____	_____
Calcium	_____	_____	_____	_____
Magnesium	_____	_____	_____	_____
Iron (unfiltered)	_____	_____	_____	_____
Manganese	_____	_____	_____	_____
Nitrate	_____	_____	_____	_____
Fluoride	_____	_____	_____	_____
Chloride	_____	_____	_____	_____
Sulfate	_____	_____	_____	_____
Bicarbonate	_____	_____	_____	_____
Hardness (ppm)	_____	_____	_____	_____
Hardness (gpg)	_____	_____	_____	_____

Remarks Water unusually warm - due to nearby power plant.

Laboratory data: _____ Sample storage location CJ1-4

Sample range 0-24 No. spls. 9 No. dupls. & cond. 9 Good

Spls. prepared by AJF Washed range 225-24 by AJF

Driller's log and cond. _____

Insoluble residues: Prepared by _____ Studied by _____ Strip log _____

Microscopic study _____ strip log 8/14/52

Gen. log _____ Correl. by NORTHUP

WELL RECORD

~~N~~
~~E~~
~~S~~
~~W~~

Well is located 25¹ miles ~~S~~ and miles ~~S~~ from
Power Plant at Deer Plant

Ottumwa in Wapello
 (Nearest Town) (County)

in the $\frac{1}{4}$ Sec. T. R.

Owner Johnson Well No.

Postoffice address Ottumwa, Iowa

Contractor C.S. Jennings

Address New London, Ia

Driller Jay Masbey

Well begun 4/23, 1957;

completed 4/27, 1957

Rig used—Cable, Rotary, Jet, or Cable

Depth of well
 (Feet)

Size of hole (note total amount of each size) 8"

Main water supply at 22 $\frac{1}{2}$
 (Feet below surface)

Final water head
 (Feet above or below surface)

Is well pumped?

Yield 48 gal
 (Gallons per minute)

Water level when pumping

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

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
8" 10	225'		4'		

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

Is screen used? yes Diameter 6"
(Inches)

Length 5 Depth to bottom 22.5'
(Feet)

Depth to top..... Slot size 10

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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