

IOWA GEOLOGICAL SURVEY
In Cooperation with U. S. Geological Survey
RECORD OF WELL

W 8081

Location:

Town: TIPTON (NE) (SW) : County CEDAR
SW SW SW sec. 6 T. 80 N., R. 2 W. Twp.

Well name and number

Owner CITY OF TIPTON (1956) Address

Tenant Address

Contractor VARNER WELL CO. Address DUBUQUE

Drillers

Drilling dates OCT. 1956 - DEC. 20, 1956

Well data:

Altitudes: Drilling curb feet; Land surface 802 feet

Determined by

Topographic position

Total depth: Reported 470' feet, Measured 470' feet

Drilling method CABLE TOOLS

Hole and casing data 98' OF 22" CASING

ACIDIZED WITH 2000 GALLONS CONCENTRATION HCL.

Original depth to water 55 above ft. below Date

Source of data

Sources of water: Principal SILURIAN (NIAGARA-KANKAKEE)

Others EDGEWOOD?

Production Data

Date _____ 50' BEFORE ACIDIZING
 Static water level _____ 55' AFTER ACIDIZING WITH 2000 GAL. CONC. HCL
 Measuring point _____
 Pumping water level _____ 208
 Yield (g. p. m.) _____ 535
 Duration of pumping _____
 Specific capacity _____

Pump Data

Type pump _____ Column diameter and length _____
 Cylinder or bowls diameter and length _____
 Suction pipe _____ Airline _____
 Power _____ Production _____ g. p. m. for _____ hours per day
 Use of water _____

Dissolved constituents and properties (in parts per million except as indicated)

Date sampled _____
 Sampled by _____
 Silica (SiO₂) _____
 Iron (Fe) _____
 Manganese (Mn) _____
 Calcium (Ca) _____
 Magnesium (Mg) _____
 Potassium (K) _____
 Sodium (Na) _____
 Carbonate (CO₃) _____
 Bicarbonate (HCO₃) _____
 Sulfate (SO₄) _____
 Chloride (Cl) _____
 Fluoride (F) _____
 Nitrate (NO₃) _____
 Dissolved solids _____
 Hardness (as CaCO₃) _____
 Total _____
 Grains per gallon _____
 Noncarbonate _____
 Alkalinity (as CaCO₃) _____
 pH _____
 Specific conductance _____
 (micromhos at 25°C) _____
 Temperature (°F) _____
 Analysis No. _____

Laboratory Data

Well No. W 8081 Sample range 10-465 No. of samples 88
 No. of dupls. and cond. 76 Good Washed range 45-465
 Samples prepared by Dow & Darland Date 10-18-56 - 1/9/57
 Logged by NATHUP Date OCT.-DEC. 1956
 Correlations by " Date " " "

DATE STARTED Sept. 28, 1956 DATE COMPLETED Dec. 20, 1956

LOCATION On East 50' of Lot 8 of Block 37, Original Town,
City of Tipton, Cedar County, Iowa

TOTAL DEPTH 470'

CASING RECORD 98' of 22" O.D. surface casing; 123'6" of
14" casing; and 88' of 13-3/8" casing in
one string with Product 360 Baker pressure
grout shoe cemented in place.

DIAMETERS 22", Surface to 98'; 20" from 98' to 212'; 12 1/2"
from 212' to 470'.

STRATA RECORD

From	To	Thickness	Description of Beds
0	12	12	Black mud-old fill
12	15	3	Yellow clay
15	25	10	Yellow clay & sand
25	30	5	Sandy clay
30	32	2	Sand
32	41	9	Sandy yellow clay
41	46	5	Clay & sand
46	50	4	Sand, gray mud
50	71	21	Sand
71	83	12	Sand & shale
83	86	3	Shale, gravel & lime rock
86	93	7	Lime rock, some shale
93	101	8	Gray lime rock
101	103	2	Lime rock-dolomite
103	106	3	Gray lime
106	129	23	Yellow lime rock
129	134	5	Hard lime
134	164	30	Yellow lime rock
164	175	11	Hard lime rock
175	180	5	Yellow clay & lime
180	228	48	Yellow lime rock
228	230	2	Lime rock & streak of shale
230	244	14	Lime rock
244	249	5	Brown lime
249	286	37	Lime rock
286	288	2	Lime, hard-dolomite
288	340	52	Lime rock
340	411	71	Gray hard lime
411	461	50	Lime rock
461	466	5	Lime-streaks of shale
466	470	4	Green shale

STATIC WATER LEVELS

<u>From</u>	<u>To</u>	<u>Level</u>
0	92	None recorded
92	94	65
94	101	61
101	103	56
103	118	58
118	134	52
134	216	55
216	249	62
249	261	55
261	269	57
269	278	55
278	288	52
288	300	55
300	307	56
307	318	55
318	328	56
328	470	55

JAN. 3, 1956

- TIPTON CITY WELL -

DRILLING COMPLETED DEC. 20, 1956

TD OF WELL 470' - 7' INTO MAGUOKETA SHALE

PUMPING TEST #1

SWL 50'

PL 334 @ 365 G.P.M.

ACIDIZED WITH 2000 GAL. CONCENTRATED HCL

PUMPING TEST #2

3.49 SP. CAPACITY
PER FT. DROWDOWN

SWL 55'

PL 208' @ 535 GPM

WATER IS FROM SILURIAN (NIAGARAN AND KANKAKEE -
POSSIBLY A LITTLE FROM EDGEWOOD)

DRILLER ENCOUNTERED STEEP DIPS WHICH MADE IT
DIFFICULT TO MAINTAIN A STRAIGHT HOLE IN THE
NIAGARAN. THIS COULD WELL BE A REEF.

ALL REMAINING SAMPLES PICKED UP 1/3/57