

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

## RECORD OF WELL

Location:

Town:

Backbone St. Park( N E )  
( S W )

County

Delawaresec. 15T. 70N. 6R. 6W. Richland

Twp.

E.

Well name and number

Backbone State Park #2 (Bathhouse)

Owner

Iowa Conservation Commission

Address

Des Moines

Tenant

Address

Contractor

Thorpe Well Co.

Address

Des Moines

Drillers

Drilling dates

9/17/51 - 9/21/54

Well data:

Elevations: Drilling curb

1018.5

feet; Land surface

feet

Determined by

Topographic position

Total depth: Reported

feet, Measured

94'

feet

Drilling method

Hole and casing data

24' of 8" casing 0-24'

(Give amount, size, kind, and depth of all casing; type and

position of seals and packers; cementing; how finished--perforated pipe, screen,  
gravel pack, open hole, etc.)

Original depth to water

37above  
ft. below

Date

Original elevation of water level

ft.; Source of data

Sources of water: Principal

; Others



Production data:

Date \_\_\_\_\_

Static depth to water \_\_\_\_\_

Measuring point \_\_\_\_\_

Pumping level \_\_\_\_\_

at \_\_\_\_\_

g.p.m.

Specific capacity \_\_\_\_\_

g.p.m. per ft. drawdown; Temperature \_\_\_\_\_

°F.

Pump data; Type pump \_\_\_\_\_

Column Dia. \_\_\_\_\_

Length \_\_\_\_\_

Cylinder or bowls: Dia. \_\_\_\_\_

Length \_\_\_\_\_

Suction pipe \_\_\_\_\_

Power \_\_\_\_\_

Airline \_\_\_\_\_

Estimated rate of production: \_\_\_\_\_

g.p.m. for \_\_\_\_\_

hrs. a day

Use of water \_\_\_\_\_

## WATER ANALYSES (in parts per million)

Date sampled \_\_\_\_\_

Sampled by \_\_\_\_\_

Total solids \_\_\_\_\_

Insoluble matter \_\_\_\_\_

Alkalinity (Meo) \_\_\_\_\_

Alkalinity (Phn) \_\_\_\_\_

pH \_\_\_\_\_

 $\text{Fe}_2\text{O}_3 + \text{Mn}_2\text{O}_3 + \text{Al}_2\text{O}_3$  \_\_\_\_\_

Alkali as sodium \_\_\_\_\_

Calcium \_\_\_\_\_

Magnesium \_\_\_\_\_

Iron (unfiltered) \_\_\_\_\_

Manganese \_\_\_\_\_

Nitrate \_\_\_\_\_

Fluoride \_\_\_\_\_

Chloride \_\_\_\_\_

Sulfate \_\_\_\_\_

Bicarbonate \_\_\_\_\_

Hardness (ppm) \_\_\_\_\_

Hardness (gpg) \_\_\_\_\_

Remarks \_\_\_\_\_

Laboratory data:

Sample storage location \_\_\_\_\_

Sample range \_\_\_\_\_

No. spls. \_\_\_\_\_

No. dupls. &amp; cond. \_\_\_\_\_

Spls. prepared by \_\_\_\_\_

Washed range \_\_\_\_\_

by \_\_\_\_\_

Driller's log and cond. yes - lead

Insoluble residues: Prepared by \_\_\_\_\_

Studied by \_\_\_\_\_

Strip log \_\_\_\_\_

Microscopic study Pyre

strip log \_\_\_\_\_

Gen. log \_\_\_\_\_

Correl. by \_\_\_\_\_

copied AFT, 1952



WELL RECORD

Well is located 2.5 miles in a N.E. direction from Dundee in Iowa,  
in the S.E.  $\frac{1}{4}$  section 15, Township 90, R 6-W.

Owner, State Park #2 Backbone at Bath house

Address, Dundee, Iowa

Contractor, Iowa-Nebraska Exploration Company

Address, Des Moines, Iowa

Well begun 9/19/34, completed 9/21/34

El. 1018.5'

Rig used.....cable, Maker, Ferguson Machine Company

Diameter of well at mouth, 8"; at bottom, 8".

Depth of well, 94'; Length and size of casing, 24', 8" Diameter.

Water at 37' Water head at 57'.

Well is pumped.....yield, 25 gal per minute.

Recorded by M. E. Burr, Dundee, Iowa

*Info from Thorpe files by CW Lane (1951) SWI 37' PWI 42' @ 24.6 gpm*

<u>Sample No.</u>	<u>From</u>	<u>To</u>	<u>Thickness</u>	<u>Kind of rock, color, hard or</u> <u>soft water</u>
1.	0	7	7	Sand
2.	7	11	4	Mixture - Flinty Limestone, Sand
3.	11	19	8	Sand
4.	19	22	4	Sandy - line stone
5.	22	30	8	Lime-stone, Shale
6.	30	40	10	Line stone
7.	40	50	10	" " Hard water
8.	50	60	10	" " " "
9.	60	70	10	" " " "
10.	70	80	10	" " Soft Water
11.	80	90	10	" " " "
12.	90	94	4	" " " "

1937

## Backbone State Park

~~Lamont~~  
Strawberry Point, IowaWell No. <sup>3</sup>~~1~~; Fish Hatchery

— W-0270

Yellow sand	20-0	20-0
Clean sand	5-0	25-0
Yellow drift	16-0	41-0
Soft limestone	6-0	47-0
Hard limestone	3-0	50-0
sandy lime (water)	32-0	82-0
Yellow shale	1-0	83-0
Brown limestone	17-0	100-0

Tested 30Gal. / no draw down.

Water level 38 Ft. from curb.

Cased 47 Ft. 6" Std. weight Drillers pipe.

Well No. <sup>4</sup>~~2~~; Auditorium

— W-0271

Sandy soil	2-0	2-0
Yellow drift with rocks	5-0	7-0
Hard limestone	39-0	46-0
Rotten limestone	24-0	70-0
Hard limestone	4-0	74-0
Sandy limestone ( water)	60-0	134-0
Blue Limestone	3-0	137-0
Brown limestone	10-0	147-0

Tested 30Gal. / no draw down.

Water level 68 Ft. from curb.

Cased 72 Ft. 6" Std. weight Drillers pipe.

McCutcheon Well Co.  
by F. S. McCutcheon.

Elev. of Lake = 998.1



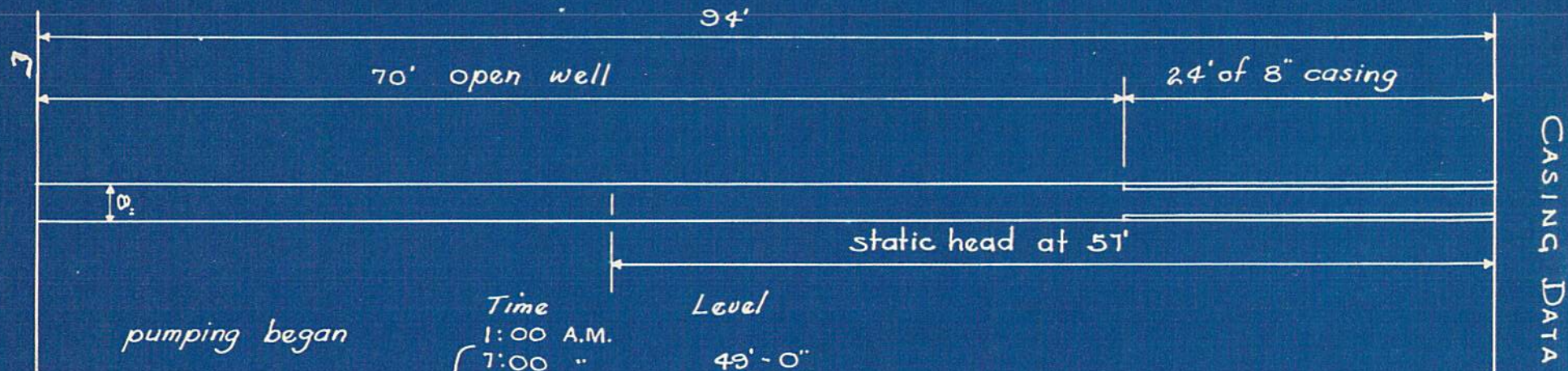
## CUTTING DATA

	sand
7'	
11'	mixture: flinty limestone - sand
	sand
19'	
22'	sandy - limestone
	limestone - shale
30'	
	limestone
40'	
	limestone hard water
50'	
	limestone
60'	
	limestone
70'	
	limestone soft water
80'	
	limestone
90'	
94'	limestone

Aug. 1937

G.E.B.





pumping began

25 G.P.M.

28 G.P.M.

42 G.P.M.

Time

Level

1:00 A.M.

49' - 0"

7:00 "

49' - 6"

8:00 "

9:00 "

50' - 0"

10:00 "

50' - 4"

11:00 "

49' - 6"

12:00 "

49' - 0"

1:00 P.M.

49' - 6"

2:00 "

49' - 6"

3:00 "

49' - 6"

3:30 "

46' - 6"