

THORPE WELL COMPANY

2340 SIXTH AVENUE
DES MOINES, IOWA

3

Drilled for City of Marion #4 at Marion, Iowa

Well is located _____ miles N-E-S-W and _____ miles N-E-S-W from _____

in the _____ 1/4 _____ 1/4 Section _____ Township _____ Range _____

Drilling started November 8 1965 Completed February 14 1966

Well No. 4 Kind of Well Jordan Depth 1566 Size hole started 32 in

Finish 12" G. P. M. 1827 Static Head 162' Pumping level from surface 344'

Water was first encountered at _____ in _____ Approx. Amt. _____ Temp. 59°

Remarks Jordan sand shot with 400 lbs dynamite-2-200lb. shots-pumped sand
second shot 600 lbs-1-400lb-1-200lbs acidized with 4120 gals above
(GIVE DETAILS OF PERFORATED PIPE AND SEALS) Jordan sand

RECORD OF PERMANENT PIPE					TEMPORARY PIPE	
SIZE PIPE	AMOUNT OF PIPE	DEPTH TO BOTTOM OF PIPE	DEPTH TO TOP OF PIPE	MAKE OF PIPE	SIZE PIPE	AMOUNT
24"	99'	98'	1' above surface		32"	12'
18"	272'	695'	423'		30"	26'
16"	418' 6"	swedged to				
12"	660'	1077' 6"	1' above surface cemented from bottom			
			to top includes Baker cement shoe			
			and 5' perforated 12" tailpipe			

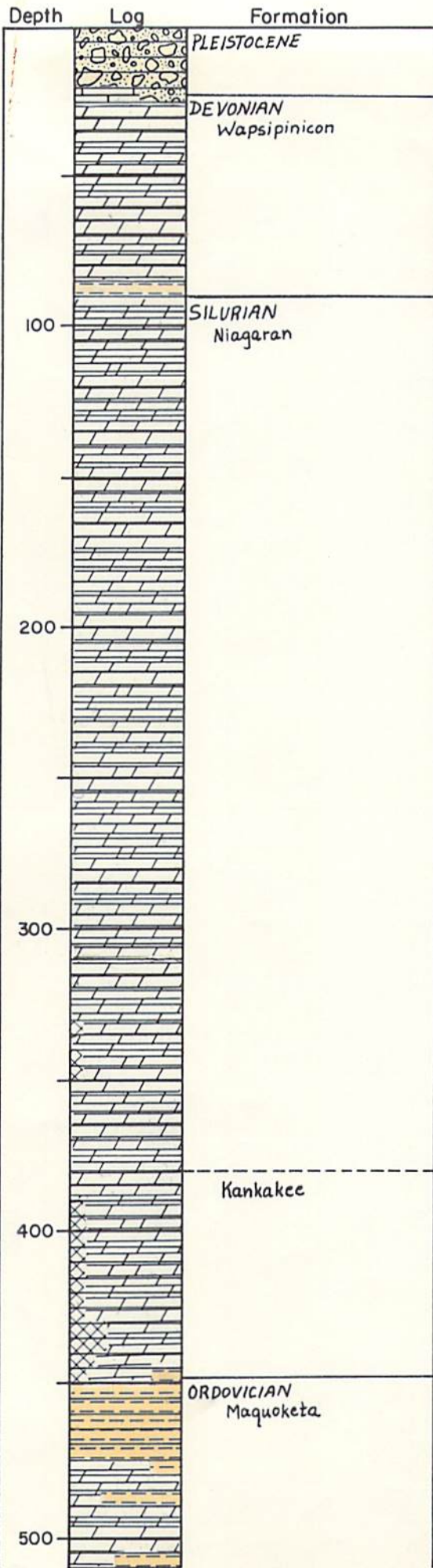
Driller Richard Nichols From Surface to 1566 feet

Driller Albert Jackson From 0 feet to 1566 feet

Driller _____ From _____ feet to _____ feet

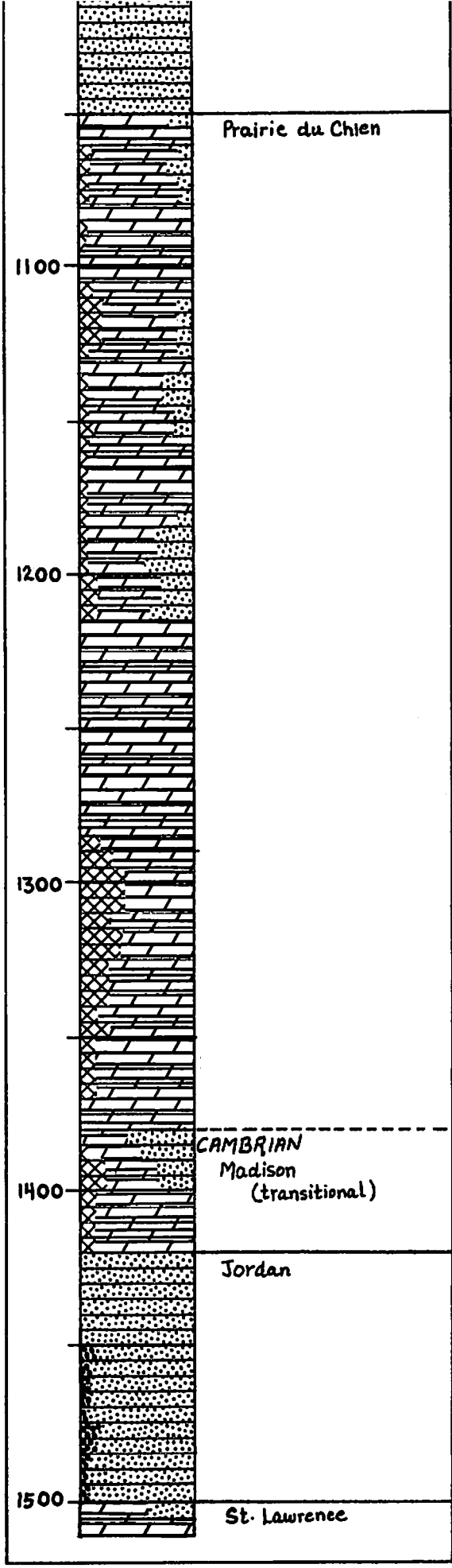
AMOUNT IN FEET	KIND OF SOIL OR FORMATION (BE SPECIFIC)	TOTAL DEPTH FEET
20	sand	20
40	lime broken	60
24	lime hard	84
6	shale coreen	90
60	lime corey	150
5	lime grey black	155
65	lime gray	220
24	lime corey and brown	244
57	" " "	301
25	lime gray	326
29	lime light brown	355
85	lime brown sandy	440
1	shale gray	441
9	lime streaks of shale	450
10	shale brown and red	460
15	shale blue and corey	475
19	shale lime shells	494
6	shale corey	500
80	lime streaks of shale	580
35	shale blue	615
40	lime brown oil show 620-627 soil formation	655
5	shale blue	660
20	lime brown	680
25	lime brown gray	705
199	lime buff brown	904
36	lime brown gray	940
8	shale green	948
47	lime gray hard	995
10	lime brown streaks of green shale	1000
4	sand hard St. Peter	1010

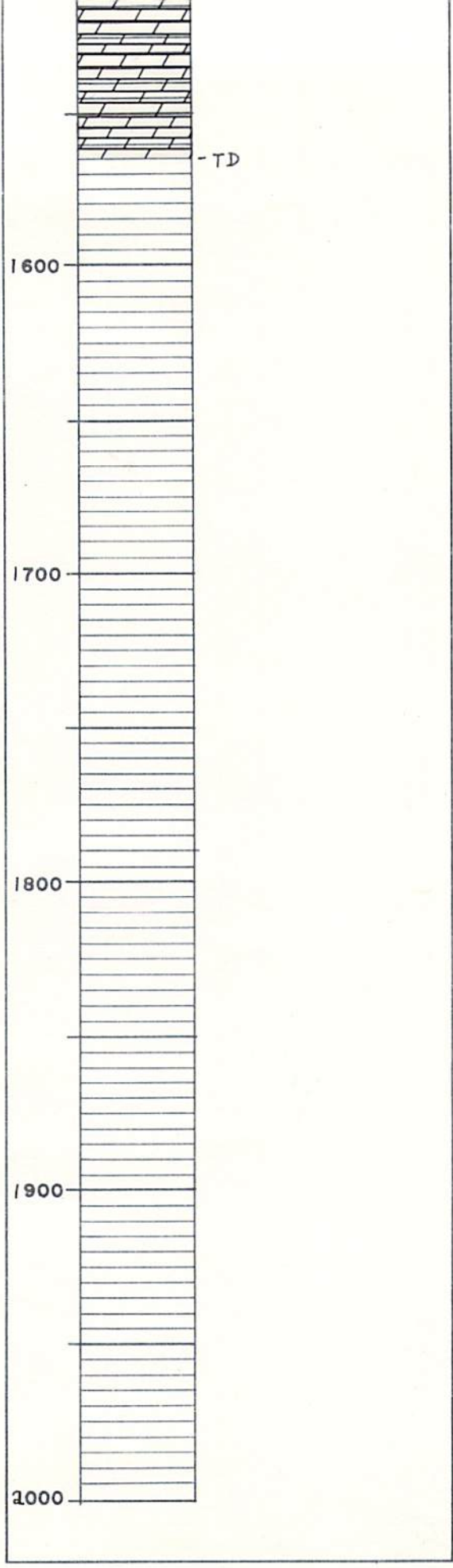
Handwritten notes:
No. on file
11/17/66
#3-66



IOWA GEOLOGICAL SURVEY In Cooperation with U. S. GEOLOGICAL SURVEY Iowa City, Iowa																		
Name MARION CITY WELL #4 (1966)		State IOWA																
Town MARION	County LINN	Loc. NE NE NW																
Contractor THORPE WELL COMPANY		Sec. 1																
Drilling Dates		T. N., R. 83 N. 7 W.																
Casing Record																		
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S.W.L.	G.P.M.	D.D.																
Remarks		Elev.																
		T.D. 1565'																
Logged By NORTHUP		I.G.S. No. W-17979																
FEBRUARY 21, 1966																		

- Explanation of Colors
- Soil
 - Loess, Silt on Siltstone
 - Drift
 - Sand & Gravel
 - Shale
 - Sandstone
 - Limestone
 - Dolomite
 - Chert
 - Gypsum or Anhydrite
 -
 - No Samples





Following information from Wes Thorpe 4/19/79
via telephone Thorpe Well Co.

Box 157

Ankeny, IA 50021

ph 515 964-1111

2/22/66 TD 1566'

swabbed hole

shot #1 at 1490'

200 lbs. 80% nitro (Hercules)

filled to 1473'

2/23/66 sand still coming in

2/24-25/66 cleaned hole

2/26/66 cleaned hole

shot #2 at 1472'

shot AA

filled 1442'

2/28/66 clean out sand & rock

3/1/66 do

test pumped at 700 gpm

filled to 1490'

shot #3 at 1481-90' 400 lbs. 80% nitro

filled 1480'

3/2-3/66 clean hole
shot #4 at 1464-70' 200 lbs 80%

3/4/66 filled to 1472'

3/5/66 clean sand & rock from hole

3/6/66 clean to TD - 1566'
test pumped at 1323 gpm
Filled to 1489'
clean hole
set cement bridge at 1402 -
acidize
test pump at 1827 gpm.

Marion City #4

TD 1566

March 1979 filled in to 1325' ?
Northway Corp. Randy to clean
hole

Northway set up small cable tool rig -
cleaned hole to 1525'

Karsten & Bunker ran natural gamma
& SP - resistivity logs from 1520'
4/18/79 (caliper probe not working).

Northway to run a 24 hour pumping
test at 1700 to 1800 gpm.

Karsten & Bunker collected bailer samples
to be studied by IGS personnel