Waverly

Owner: Waverly City #2

Location: SW¼NE¼NW¼ sec. 2 T. 91 N, R. 14 W. Washington Twp.

Curb elevation: 917.3 feet

Total depth: 1263 feet

Contractor: Thorpe Well Co., Des Moines

Driller:

Date drilled: 1930

Size of hole and casing:

Samples studied by: J. B. Carrier Log by: S. E. Harris Jr.

IOWA GEOLOGICAL SURVEY
Generalized Log Based on Detailed
Description of Drill Cuttings

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Name of Well Waverly City Well Survey No. W-0055

Location SW¼ NE¼ NW¼ sec 2 T.91N., R.14W. Washington Twp.

Drilled by Thorpe Well Co. Date 1930

Total Depth 1263 ft. Curb Elevation 917.3 ft. Static Level _____ ft.

Pumping Test _____ Hours _____ Min; Gal. per min. _____ Drawdown _____ ft. in _____ min.

Casing Data _____

Description of Formations

No.		Thick.	From (feet)	To
	Pleistocene system			
1.	Soil	3	0	3
2.	loess, yellowish brown	6	3	9
3.	Sand, fine- to coarse-grained, angular to subangular, polish to well frosted.	41	9	50
	Devonian system			
	Middle Devonian series			
	Wapsipinicon formation			
4	Limestone, light grayish buff, fine-grained, crystalline, Chert 15% from 50 to 55 feet, pale to light tannish buff, opaque dull	10	50	60
5.	Dolomite 85-90%, light brownish buff, very fine-grained, crystalline. Limestone, light medium brnish drab, lithographic. Chert - 5%, pale gray to bluish gray, dull, opaque. ~~Glacial~~ Sand, cave	20	60	80
	Silurian system			
6.	Dolomite, pale to light yellowish buff and drab medium-grained, crystalline, slightly cherty	20	80	100
	Notes:			
7.	Dolomite, light buff, fine- to fine medium-grained, crystalline, dense. Chert trace as from 80 to 101 feet	10	100	110
8.	Dolomite, light medium gray, fine-to fine medium-grained, crystalline to slightly saccharoidal, porous	7	110	117
	Ordovician System			
	Cincinnatian series			
	Richmond group			

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	Maquoketa formation			
9.	Shale, light medium gray, slightly dolomitic, soft. Dolomite 10%, light medium gr, fine grained, crystalline, argillaceous	14	117	131
10.	Dolomite, light gray, slightly greenish, very fine- to fine medium-grained, crystalline, grading into: Shale 20%, gray, dolomitic. Chert 15%, light gray, dull, opaque	14	131	145
11	Shale, light grayish green, dolomitic, slightly silty, soft	103	145	248
12	Dolomite, light medium gray and brown, fine coarse-grained, saccharoidal, slightly calcareous,	22	248	270
13	Dolomite, 70% light brownish drab, 30% medium brown, coarse-grained, crystalline to saccharoidal, embedded masses of calcite crystals	15	270	285
14	Limestone, 80% light to medium gray with black specks. Dolomite 20%, fine-grained, granular, medium to dark brownish gray, argillaceous. Chert trace, light medium gray, dull, conchoidal, opaque	15	285	300
15	Limestone 65%, light medium gray, fine-grained, crystalline, dense. Chert 25%, light gray with black specks. Dolomite 10%, as from 285 to 300 feet	15	300	315
16	Dolomite, 45% light gray, fine-grained, granular, argillaceous. Limestone 30%, light to medium gray, very fine-grained, crystalline, hard, dense. Chert, 25% light to medium-grained, slightly calcareous fossils	15	315	330
17	Limestone 80%, light to light medium gray, fine-grained, and Chert 10%, granular to lithographic. Dolomite 10%, as from 315 to 330 feet.	15	330	345

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18	Dolomite 75%, medium brown to gray, fine medium-grained, crystalline to granular. Limestone 20%, light drabbish gray with black specks, fine-grained, crystalline, with dolomite rhombs embedded. Chert 5%, olive brown, drab, and black specks	15	345	360
	Mohawkian series			
	Trenton group			
	Galena formation			
	Stewartville - Dubuque members			
19	Limestone, pale to light buffish gray, very fine-grained, cinnamon specks from 360 to 480 feet, to medium-crystalline, some dolomite rhombs embedded.	60	360	420
20	Limestone 85%, very light brownish buff, fine- to medium-grained, crystalline, few black and drab (fossil) mottles. Dolomite 15%, light brown, medium-grained, crystalline, dense	15	420	435
21	Dolomite 80%, light brownish drab, medium-grained, crystalline, inclusions of limestone, 20%, pale gray, very fine-grained. ~~Limestone 20%, pale gray, very fine-grained, cry~~	15	435	450
	Prosser member			
22	Limestone 85-90%, Limestone, light gray and drab, medium- to coarse-grained, crystalline, dense, dolomitic, crinoid stems and bryozoa. Chert 10-15%, pale gray with red and black specks.	45	450	495
23	Limestone, light drabbish gray, very fine-grained, crystalline, very fossiliferous, black mottling of pyrite and bryozoa,	30	495	525
24	Limestone as from 495 to 525 feet trace cherty	70	525	595

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	Decorah- Platteville formations			
25	Shale, green, black fossil specks, calcareous, waxy	5	595	600
26	Shale 80% light medium gray, few black specks, very slightly calcareous, waxy, nonfissile. Limestone 20%, medium brown, fine-grained, argillaceous, dense	20	600	620
27	Limestone 85% light gray, sublithographic, dense, Bryozoan (Rhinidyctya). Shale trace to 15% decreasing downward, light green, noncalcareous, waxy, very fissile	30	620	650
28	Limestone, light buff and light drabbish gray, many black fossil inclusions, very fine-grained, granular, trace sand embedded	10	650	660
	Glenwood member			
29	Shale, light to olive green, slightly calcareous, pyritic, slightly banded, soft, sand embeded from 670 to 677	17	660	677
	Chazyan series			
	St. Peter formation			
30	Sandstone, white, (50% medium-grained 50% fine-grained 677 to 690 feet; 90% medium-grained, 10% fine-grained 690 to 705 feet; 70% medium-grained, 30% fine-grained 705 to 718 feet) subangular, well frosted, calcareous cement	41	677	718
31	Sandstone 60% white (40% medium-grained, 20% fine-grained), subangular, well frosted. Dolomite 40%, light to medium drabbish gray and brown, fine-grained, granular, few sand grains embedded	12	718	730

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Prairie du Chien formation				
Willow River member				
32	Dolomite 85-90%, light to medium buffish gray and drabbish gray, fine-grained, crystalline to little phenoclastic, with embedded sand. Sand 10-15%, loose, medium- to fine-grained, subangular, frosted. Chert 5-10%, white to very light gray, semivitreous, conchoidal, opaque, some oolitic	50	730	780
33	Dolomite 90%, pale to light drab and buff, fine-grained, crystalline (780 to 795 feet), medium-to coarse-grained, crystalline (795 to 810 feet), dense, sand embedded. Sand 10% as from 730 to 780 feet	30	780	810
34	Dolomite 70%, very light drab, medium-to coarse-grained, crystalline dense, sand embedded. Chert 20%, white, opaque, oölitic with sand grain centers. Sand 10%, loose medium grained, subangular to curvilinear, frosted with small secondary faces	15	810	825
35	Dolomite, very light drab, slightly buff, medium-grained, crystalline, dense, trace sand embedded.	15	825	840
New Richmond member				
36	Sandstone 85%, (60% medium-grained, 25% fine-grained), angular to subangular, frosted with small secondary faces Dolomite 15%, as from 825 to 840 feet	15	840	855

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37	Dolomite 65-85%, light buff to drab, fine-grained, crystalline, dense, sandy, slightly porous. Sand, 15 to 25%, as from 890 to 855 feet. Chert ~5 to 10% white to light buff, opaque, oolitic	30	855	885
38	Sandstone, (50% 885 to 895 feet; 80% 895 to 907 feet) medium-to coarse-grained, frosted, angula to subangular. Dolomite 20-50%, pale to light grayish drab, very fine- to medium-grained, crystalline, dense, ~~with~~ sand embedded	22	885	907
39	Dolomite 70%, as from 885 to 907, Sand 20%, coarse, coarsely pitted and grooved. Chert 10%, pale gray to pale drab, dull to vitreous, conchoidal, opaque to semi-translucent	10	907	917
	Oneota member			
40	Dolomite 85%, pale gray, medium-to coarse-grained. Chert 15%, pale gray with red and black specks, dull, conchoidal, opaque, quartz crystals in vugs	13	917	930
41	Dolomite 60%, as from 917 to 930 feet. Sand 40%, mostly coarse, grained angular, well frosted	15	930	945
42	Dolomite, 50%, pale to light drab and buff, fine- to medium-grained, crystalline-granular. Chert 50%, pale grayish drab to dark grayish brown, semi-vitreous, translucent to tripolitic	15	945	960

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43	Dolomite 90-80% light drab and buff, fine- to mostly coarse-grained, crystalline, dense. Chert 10-20%, white, semi-vitreous, conchoidal, opaque, some tripolitic	45	960	1005
44	Dolomite 80-95%, very light drab, fine-to medium-grained, subsaccharoidal, Chert 5-20%, as from 960 to 1005	60	1005	1065
45	Dolomite, very, light drab, fine-grained crystalline, some coarse-grained at base, some sand embedded 1080 to 1095 feet. Sand, medium, subangular, slightly frosted	30	1065	1095
	Cambrian system			
	St. Croixan series			
	Trempealeau formation			
	Jordan member			
46	Sandstone 70%, medium-grained, strongly frosted with some secondary faces. Dolomite 30%, pale drab, fine-to-coarse-grained, crystalline, sandy. Chert cave	10	1095	1105
47	Sandstone 80-100%, medium-to-fine-grained, finer-grained downward, subangular to curvilinear, well frosted. Dolomite 0-20% as from 1095 to 1105 feet.	55	1105	1160
48	Sandstone 50% medium- very fine-to grained, very fine-grained, angular. Siltstone 50%, pale to light gray, dolomite cement	10	1160	1170
49	Sandstone 60-75%, very fine-to medium-grained (mostly fine-grained), Dolomite 25-40%, light to medium gray, medium-to fine-grained sand embedded	30	1170	1200

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	St. Lawrence member			
50	Dolomite, light drab and gray, fine medium-grained, crystalline to sub-saccharoidal, slightly sandy. Glauconite trace, from 1215 to 1260	60	1200	1260

Samples studied by: J. B. Carrier Log by: S.E. Harris Jr

W-0055

City Water Supply of Waverly, Iowa.

(Well ~~Drilled~~ -No 2 Drilled 1930)

Casing Record for

City Eng
A.P. Bayers

Log for City Well No 1 drilled 1899 T.D. 1718 ft. Now cared to 1300 ft. T.D. John Mooney

