Corporation, Rochester, N. Y. Binder and holes in leaves Patented. FORM 416905

MOORE'S MODERN METHODS

Test conducted by Thorpe Well Co.

Pumping test - Town of Winfield - Well No. 4 - Dec. 1947

Depth 1280' - 10" diameter
Pump setting - 340' - bowls 11 stage 7 7/8" dia.
Initial water level - 165'-6"

Time Dec. 8	Depth to Water	G.P.M.	
2:00a		72	pump started
3:00	230	72	water muddy
3:30	228	72	(weir meas.)
4:00	227	72	
4:30	225.5		
5:00	224.6		
5:30	224.6		water cloudy
6:00	224.6		
6:30	224.3		
7:00	224		
7:30	224		water clearing
8:00	224		
8:15		117	Pumping rate increased
8:30	276.5		water cloudy - start pump. well No. 3
9:00	277		
9:30	276.6		water clearing
10:00	277.3		
10:30	277.3		Stop pumping well No. 3
11:00	276		
11:30	276		
12:00 N	276.75	117	
12:30 p	275		
1:00	274.66		
1:30	275.25		
2:00	274.5		start pumping well No. 3
2:30	274.5		
3:00	274.84		
3:30	274.42		
4:00	274.75		
4:30	275.17		
5:00	275.68		
5:30	275.30		
6:00	275.08		water clear

John C. Moore Corporation, Rochester, N. Y. Binder and holes in leaves Patented. FORM 416905

MOORE'S MODERN METHODS

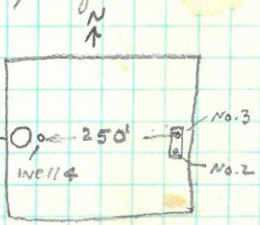
Pump Test Winfield well Cont.

Time	Depth to Water	GPM	
Dec 8			
6:30 p	275.3	117	
7:00 p	275.3		
7:30	275.58		
8:00	275.42		
8:30	275.66		
9:00	275.25		
9:30	274.58		Stop pumping well No. 3
10:00	274.84		
10:30	274.84		
11:00	274.58		
11:30	274.66		
12:00 M	274.84		
Dec 9			
12:30 a	274.58		
1:00	274.73		
1:30	274.58		
2:00	274.84	117	Water sample collected pumping stopped
2:30 a	153'		water sample collected in jug after steaming out and rinsed with pumping water
1:00 p	146' 5"		

Well No. 3 Non pumping levels - reported as 170'
pump setting - 250' to bye of bowls
Pump man - Chrissinger pumping rate
time pumped each day.

Councilmen - water comm.
Lemon, Ted
Logan
Lonsdale

Mayor - Mr. Scott.



RESULTS OF PUMPING TEST MADE ON

WINFIELD TOWN WELL NO. 4

WINFIELD, IOWA

January 29-30, 1948

NAME: Winfield Town Well No. 4 (1948).

LOCATION: NE¼ SW¼ NE¼ Sec. 16, T. 73 N., R. 5 W., Scott Twp., Henry Co.

ELEVATION: Curb, top of 10-inch pipe, 711.3 feet above sea level.
Land surface, 710.6 feet above sea level.

OWNER: Town of Winfield.

CONTRACTOR: Thorpe Well Co., Des Moines, Iowa.

DRILLERS: Guy Elam, Ed. Ager.

DRILLING DATES: Started September 1947. Finished January 1948.

TOTAL DEPTH: 1920 feet.

CASING AND HOLE SIZE: 850 feet of 10-inch pipe set in 13-inch hole at 850 feet. (Upper 35 feet cemented) Open 10-inch hole from 850 feet to 1920 feet.

CHIEF AQUIFER: St. Lawrence formation of Cambrian age.

TEST PUMP: Turbine, setting 300 feet with 10 feet of suction pipe. Powered by gasoline engine.

MEASURING POINT: Top of 10-inch casing and 0.7 foot above land surface.

DISCHARGE MEASUREMENTS: Discharge rate obtained by use of weir box. One foot weir. Assume full end contractions.

TEMPERATURE MEASUREMENTS: Temperature of pumped water measured at end of about 15 feet of 6-inch discharge pipe.

NOTE: Town well No. 3 located 250 feet to east of well No. 4 was pumped intermittently at rate of about 120 gallons per minute. Observations made on well No. 3 appear on sheet at back of this report.

Test observed by W. E. Hale.

RESULTS OF PUMPING TEST MADE ON WINFIELD TOWN WELL-JAN. 29, 30, 1948

Time	Depth to Water (feet)	Discharge Rate Weir ins.	Discharge Rate GPM	Temp. °F.	Remarks
Jan.29					
10:53am	129.0				Pumping stopped at well No. 3.
11:00	128.97				
11:20	128.90				
11:51	128.83				
12:16pm	128.77				
1:00	128.62				Air temp. 23°F.
1:22	128.57				
1:53					Pumping started.
1:57	141.10	4	269	62	Water very muddy gray.
2:02	145.7	4½	318±	70	Water very muddy gray.
2:10	143.6	4-3/4	344	73	Water dirty gray.
2:20	144.4	5-1/8	383	74	Water dirty gray (clearing).
2:30	143.67	5-1/8	383±	75	Water dirty (clearing).
2:40	144.2	5¼	396		
2:50	144.87	5¼	396	75	Water milky, slight sulphide odor.
3:00	144.54	5¼	396		Water milky, slight sulphide odor.
3:15	144.63	5¼	396		Water cloudy.
3:30	144.70	5¼+	400	75	Water cloudy.
3:45	145.1	5-3/8	409		Water cloudy.
4:00	145.32	5-3/8	409		Water cloudy.
4:30	145.12	5-3/8	409	75	Water slightly cloudy.
5:00	144.7	5-3/8-	405±	75	Water slightly cloudy.
5:30	143.96	5-3/8-	405±	75	Water almost clear.
6:00	144.87	5-3/8	409		
7:00	143.8	5¼-	396	75½	Water cloudy.
7:05	153.27	5-3/4	449		Pump speeded up.
7:15	152.41	5-3/4-	445		
7:30	151.9	5-5/8+	440		Water very cloudy.
7:45	151.2	5-5/8+	440		Water cloudy (Air temp. 18°F.).
8:00	149.77	5½	423	75½	(Air temp. 17°F.).
8:30	151.20	5-5/8	436		
9:00	149.88	5½	423		Water cloudy.
9:30	148.73	5-3/8+	420	75½	Water cloudy.
10:00	149.89	5½	423		
10:30	149.52	5½	423		
11:00	149.2	5½	423		Water slightly cloudy.
11:30	147.8	5-3/8+	412		(Air temp. 13°F.).
12:00	146.67	5-3/8	409		Water slightly cloudy.
Jan.30					
12:30am	148.35	5-3/8+	412		Water almost clear, slight H_2S odor.
2:00	149.3	5½+	425		Water almost clear.
2:22	148.10	5½+	425		
7:45	153.15	5-3/4	450	75	Water almost clear.
8:15	153.48	5-3/4+			
8:45	154.82	5-7/8	463		
9:05	154.96	5-7/8+	465		Water slightly cloudy.
9:15	155.2	6-	475		

Time	Depth to Water (feet)	Discharge Rate Weir ins.	GPM	Temp. °F.	Remarks
Jan.30					
9:35am	155.1	6-	475		
10:00	156.15	5-7/8	463	75½	Water slightly cloudy (Air temp. 22°F.).
10:15	156.67	5-7/8	463		
10:45	156.18	5-7/8+	465		Water slightly cloudy.
11:00	156.1	5-7/8	463		
11:20	155.99	5-7/8	463		Water slightly cloudy.
12:00pm	148.80	5-3/8	409		
12:16	146.38	5¼	396		Water almost clear.
12:30	146.60	5-1/8	383		(Air temp. 27°F.).
1:00	146.91	5¼	396		Water almost clear.
1:30	144.7	5-1/8	383	75½	Water clear. Water sample collected.
1:45		5-1/8	383		(Motor trouble.)
1:48					Pumping stopped.
1:50	128.1				Recovery measurements.
1:51	127.27				
1:52	127.09				
1:53	126.94				
1:54	126.84				
1:55	126.74				
2:00	126.46				
2:05	126.25				
2:10	126.1				
2:15	126.08				
2:20	125.97				
2:25	125.89				
2:30	125.86				
2:52	125.75				
3:00	125.67				
Feb.1					
3:04pm	123.95				