

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

3408
W-3048

RECORD OF WELL

Location:

Town: Stockport (NE)
(SW): County Van Buren
NW 1/4 NE 1/4 NW 1/4 sec. 19 T 20 N., R. 8 W. Twp.

Well name and number Stockport Town WellOwner City of Stockport

Address _____

Tenant _____

Address _____

Contractor T. W. Van Winkle & SonAddress Salem, IowaDrillers Leland Van WinkleDrilling dates Aug 26, 1948 to Oct 13, 1948

Well data:

Elevations: Drilling curb _____ feet; Land surface 745 feetDetermined by CWHTopographic position UplandTotal depth: Reported 448 feet, Measured _____ feetDrilling method Cable Tool

Hole and casing date 8" casing from 0' to 100' 4"; 6" casing from 0' to 178'; 6" open hole from 178' to 448'

Original depth to water 100.6P ~~200.6~~ ft. below Top 6" ss Date Oct 25, 1948

Original elevation of water level _____ ft.; Source of data _____

Sources of water: Principal Miss K S; Others _____

Production data:

Date

Oct 15, 1948

Static depth to water

100.68'

Measuring point

Top 6" csg, 1.8' above ls

Pumping level

254 ft

at

7

g.p.m.

Specific capacity

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

55 1/2 °F.

Pump data; Type pump

Cylinder

Column Dia.

2.5"

Length

390 ft

Cylinder or bowls: Dia.

Length

Suction pipe

Power

From drilling rig

Airline

Estimated rate of production:

5 to 6

g.p.m. for

hrs. a day

Use of water

Town supply

WATER ANALYSES (in parts per million)

Date samples

Oct. 15, 1948

Sampled by

C. M. Lane

Total solids

(Dissolved)
2580

Insoluble matter

10.0

Alkalinity (Meq)

440

Alkalinity (Phm)

14.0

pH

10/25/48 8.2Fe₂O₃ - Mn₂O₃ - Al₂O₃6.5

Alkali as sodium

787.2

Calcium

60.2

Magnesium

32.3

Iron (unfiltered)

(Soluble)
None

Manganese

.13

Nitrate

None

Fluoride

0.5

Chloride

214

Sulfate

1201.8

Bicarbonate

506.2

Hardness (ppm)

283

Hardness (gpg)

16.5

Remarks

Laboratory data:

Sample storage location

Sample range

17-448

No. spls.

100

No. dupls. & cond.

100 for

Spls. prepared by

C. M. C.

Washed range

95-448

by

C. M. R. W. A.

Driller's log and cond.

yes, fair

Insoluble residues: Prepared by

Studied by

Strip log

Microscopic study

0-448

strip log

yes

Gen. log

Correl. by

M. Parker

3408

Name Stockport town well No. 1
 Loc. NW NE NW 19-70N-8W, Van Buren Co.
 T.D. 448'
 Drilled Van Winkle Sept. 1948
 Log W-3408 Parker
 Casing 8" csg. from 0-100' 4"; 6" csg. from 0-178'

Prod. data:

SWL 99'
 PWL 254'
 Yield 7 gpm

$$\begin{array}{r} .045 \\ 155 \overline{) 7.00} \\ \underline{620} \\ 800 \\ \underline{775} \end{array}$$

No Municipal supply

Well is capped, but
do not use

$$\frac{.045}{270} = .02 \times 10^{-2}$$

$$\begin{array}{r} .00016 \\ 270 \overline{) .04500} \\ \underline{270} \\ 1800 \\ \underline{1620} \end{array}$$

$$\text{piez. } \frac{745}{77} = 6.46$$

Water analysis: No. 14572 10/15/48

NEVER PUMPED OTHER THAN
TEST PUMPED

Check everything

25 JUN 62 - 15.5 SWL 115.00 - 17.25 = 97.75
 MP = 2.5 ± FT PLSD

SWL. LLS

Elev.		745		
Formations	<u>Depth</u>	<u>Top</u>	<u>Base</u>	<u>Thick.</u>
St. Louis	175	570	515	55
Warsaw	230	515	495	20
Keok.	250	495	415	80
Burl.	330	415	340	75
Wass.	405	340	328	12
Chouteau (No. Hill)	417	328	305	23
Hannibal (P. Hill)	440	305		

448
 178

 270



CWL

Stockport Town Well No. 1 17 Sept 48
Delt. Leland VanWinkle

0-45' Drift
45'-65' Sand - Water 55'-65' came up to 10'
drlm est 109 pm coming in
65'-95' - sandy black sh. - enough sh to keep
hole open but samples washed out to mostly sd
95'-175' - sh
175'-263' - Rock - water at 200' raised to
est 100'

Samples from 175'-263' contain much sh cave

6" casing set at 100' being pulled due to sh
cave below casing. Hole to be reamed
to 8" 6 1/2" sh.

Delt would like revised forecast if samples
are good enough to identify section

Further communications to
Floyd F. Johnston
Stockport, Iowa

Stockport Town Well No. 1
clear, windy

Sept 17, 1949
C. W. Lane

Sta	Read	Time	Temp	T.C.	Adj. Read	R.C.	Elev
CBYQAR BM	643	3:22	89	0	643	+104	747
W.H.	641	3:27	89	0	641	+103.5	744.5
CBYQAR BM	644	3:32	88	0	644	+103	747
W.H.	644	3:37	88	0	644	+101	745
CBYQAR BM	651	3:43	88	0	651	+96	747

Elev. - 745'

Location NW 1/4 NW 1/4 Sec 19 T70N R 8W
Drilling curb at ground level at present

+105

+100

+95

3:05

3:20

3:25 *

3:30

3:35

3:40

3:45

Stockport

Loc: SWfc-18-70-8 Van Buren

Elev: 747 ft.

Pop (1940): 338

SEH maps - T. Hannibal @ elev 345

B. Burl 390

T. Keok 525

Th. Hamp 35'

Th. Hann 60'

Th. Louisiana 10'

Th. MM-ER 170'

Forecast (^{Elev} 745)

(Pleist
Penna
Pleist (& Penna ^{0-40±}
5) ^{40-100±}) Depth
0 - 100±

Miss

St. L. - War 100± ~~140~~ - 220

R - B 220 - 360

Hampton 360 - 400

Hannibal 400 - 460

Louisiana 460 - 470

MMill 470 - 640

Dev. L. Creek (shale) 640 - 720

C. Valley 720 - ?



Stockport, Van Buren Co.

Oct 15, 1948

CWZ

Mayor - F.R. Snyder
 City Clerk - D.H. Stevens
 City Council { LW Workman
 LE Workman
 Glen Russell
 Carl Mathee

Top

st Aug 26
 Fr Oct 13

TD ~ 448

100' 4" 8" casing
 178' 6" casing
 6" casing 1.8' open hole
 6" open hole to TD

RESULTS OF PRODUCTION TEST

ON

STOCKPORT TOWN WELL NO. 1

Stockport, Iowa

October 15, 1948

NAME: Stockport Town Well No. 1.

LOCATION: NW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 19, T. 70 N., R. 8 W.

ELEVATION: Land surface, 745 feet above sea level.

OWNER: Town of Stockport, Van Buren County.

CONTRACTOR: T. W. Van Winkle & Son.

DRILLER: Leland Van Winkle.

DRILLING DATES: Started Aug. 26, 1948. Finished Oct. 13, 1948.

TOTAL DEPTH: 448 feet.

CASING & HOLE DATA: 100 feet 4 inches of 8-inch casing set at 99 feet;
178 feet of 6-inch casing set at 176.2 feet; open 6-inch hole from
176.2 feet to 448 feet.

TEST PUMP: 2.5-inch cylinder pump set at 390 feet. Powered by drilling
rig.

WATER-LEVEL MEASUREMENTS: Water-level measurements made at top of 6-inch
casing. 1.8 foot above land surface.

DISCHARGE MEASUREMENTS: Discharge measurements made into container of
known capacity.

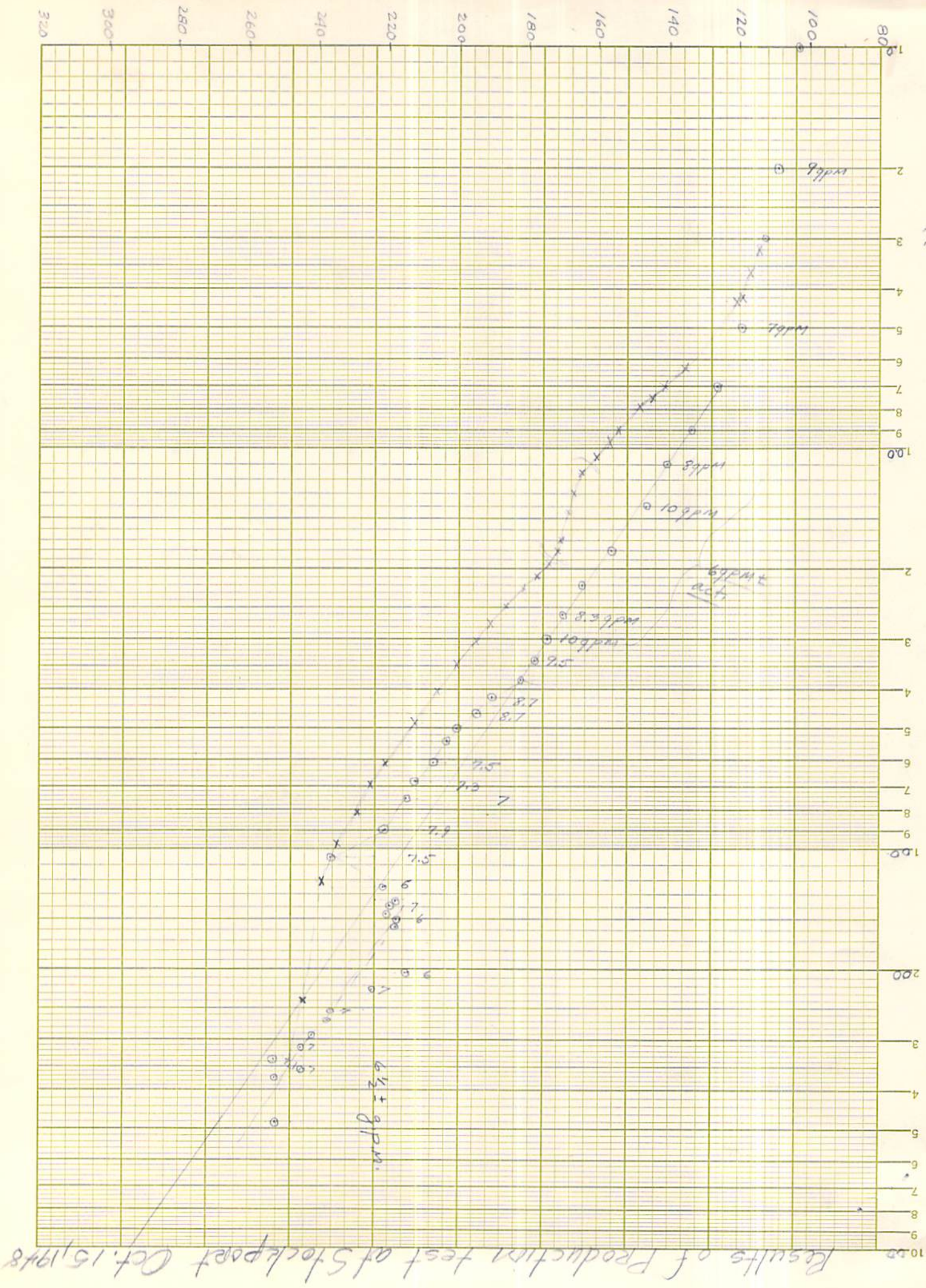
TEMPERATURE MEASUREMENTS: Temperature measurements made at end of 5 feet
length of 2.5-inch discharge pipe.

REMARKS: Measurements made by W. E. Hale, C. W. Lane, and A. Garvik.

RESULTS OF PUMPING TEST ON STOCKPORT TOWN WELL NO. 1 - OCTOBER 15, 1948

TIME	DEPTH TO WATER	G.P.M.	TEMP. °F.	REMARKS
Oct. 15				
9:14 AM	100.68			Pumped a few strokes.
9:19	99.20			Measuring point is top of 6-inch casing 1.8 foot above land surface.
9:25	98.10			
9:29	97.4			
9:30				Pumping started.
9:31	102.86			
9:32	109.08	9		
9:33	112.80			
9:35	119.60	7		Water very muddy.
9:37	126.70			
9:39	133.70			
9:41	140.50	8		
9:42				Pumping rate increased.
9:44	146.71	10		Water clearing some.
9:48	156.73			
9:52	164.83			
9:56	171.01	8.3		
10:00	174.78	10	55½	
10:04	178.13	9.5		
10:08	182.80			
10:12	191.50	8.7		Water dirty.
10:16	195.73	8.7	55½	
10:20	200.90			
10:24	203.98			
10:31	207.61	7.5		Water very dirty.
10:38	212.95	7.3		
10:45	215.10			
11:00	221.60	7.9		
11:15	236.95	7.5	55½	
11:35	221.95	6		Pump valves sticking.
11:40		6.7		Pumping rate increased, valves sticking.
11:44	218.58	7		
11:49	220.00	6.7		Water still dirty.
11:55	220.72			
12:00	218.66	6		
12:05 PM		7		
12:06	218.72			
12:55	214.94	6		
1:18	224.90	7		Water still dirty.
1:45	236.20	7		
2:00	237.65	6		
2:05		7		
2:21	242.22	6.5		Water clearing some, very cloudy.
2:45	245.25	7		
3:05	253.33	7.1		
3:25	245.95	7		Water cloudy.
3:35	249.10			
3:45	252.70	7.3		

TIME	DEPTH TO WATER	G.P.M.	TEMP. OF.	REMARKS
Oct. 15				
4:00 PM	254.70	6.7	56	
4:25	254.15	6.7		
4:45	253.70	6.7		
5:00	253.02	6.7		
5:15	252.10	6.4		
5:27	252.11	6.7		Water sample for analyses.
5:30	247.05			Pumping stopped. Recovery measurements.
5:32	244.12			
5:34	239.00			
5:35	234.95			
5:36	228.79			
5:37	225.00			
5:38	221.50			
5:39	216.55			
5:40	212.80			
5:42	206.15			
5:44	201.08			
5:46	195.51			
5:48	191.30			
5:50	186.40			
5:52	181.55			
5:54	177.53			
5:56	174.32			
5:58	172.65			
6:00	171.55			
6:05	169.15			
6:10	167.72			
6:15	164.37			
6:20	161.05			
6:25	156.72			
6:30	154.20			
6:35	151.65			
6:40	148.18			
6:45	144.60			
6:50	141.10			
6:55	138.10			
7:00	135.92			
7:49	121.26			
8:00	119.78			
8:10	118.75			
8:20	117.73			
8:30	117.00			
9:05	114.60			



UNITED STATES
 DEPARTMENT OF THE INTERIOR
 GEOLOGICAL SURVEY

File No.

Washington _____

District _____

①

OK
CW

Results of Pumping Test on Stockport Town Well No. 1, Oct 15, 1942

Time	Depth to Water	GPM	Temp of	Remarks
Oct 15				
9:14 a	100.68			Pumped a few strokes.
9:19	99.20			Measuring point is top of 6" casing 1.8'
9:25	98.10			above land surface
9:29	97.4			
9:30				Pumping started
9:31	102.86			
9:32	109.08	9		
9:33	112.80			
9:35	119.60	7		Water very muddy
9:37	126.70			
9:39	133.70			
9:41	140.50	8		
9:42				Pumping rate increased
9:44	146.71	10		Water clearing some
9:48	156.73			
9:52	164.83			
9:56	171.01	8.3		
10:00	174.78	10	55½°	
10:04	178.13	9.5		
10:08	182.80			
10:12	191.50	8.7		Water dirty
10:16	195.73	8.7	55½°	
10:20	200.90			
10:24	203.98			
10:31	207.61	7.5		Water very dirty
10:38	212.95	7.3		
10:45	215.10			
11:00	221.60	7.9		
11:15	236.95	7.5	55½°	
11:35	221.75	6		Pump valves sticking

UNITED STATES
 DEPARTMENT OF THE INTERIOR
 GEOLOGICAL SURVEY

 File No. { Washington ②
 District

Results of Pumping Test on Stockport Town Well No 1 Oct 15, 1948

	Time	Depth to Water	GPM	Temp of	Remarks						
	Oct 15										
	11:40		6.7		Pumping rate increased, valves sticking						
	11:44	218.58	7								
	11:49	220.00	6.7		Water still dirty						
	11:55	220.72									
150	12:00	218.66	6								
	12:05		7								
156	12:06	218.72									
205	12:55	214.94	6								
228	1:11	224.90	7		Water still dirty						
255	1:45	236.20	7								
270	2:00	237.65	6								
275	2:05		7								
291	2:21	242.22	6.5		Water clearing some, very cloudy						
315	2:45	245.25	7								
335	3:05	253.33	7.1								
355	3:25	245.95	7		Water cloudy						
365	3:35	249.10									
375	3:45	252.70	7.3								
390	4:00	254.70	6.7	56°							
415	4:25	254.15	6.7								
435	4:45	253.70	6.7								
450	5:00	253.00	6.7								
465	5:15	252.10	6.4								
479	5:27	252.11	6.7		Water sample for analyses						
480	5:30	247.05			Pumping stopped. Recovery measurements.						
482	5:32	244.12									
484	5:34	239.00									
485	5:35	234.95									
486	5:36	228.79									
487	5:37	225.00									

UNITED STATES
 DEPARTMENT OF THE INTERIOR
 GEOLOGICAL SURVEY

 File No. { Washington _____
 District _____

Results of Pumping Test on Stockport Town Well No. 1 Oct 15, 1948

	Time	Depth to Water	GPM	Temp of	Remarks						
	Oct 15										
488	5:38 p	221.50									
489	5:39	216.55									
490	5:40	212.80									
492	5:42	206.15									
494	5:44	201.08									
496	5:46	195.51									
498	5:48	191.30									
500	5:50	186.40									
502	5:52	181.55									
504	5:54	177.53									
506	5:56	174.32									
508	5:58	172.65 ?									
510	6:00	171.55									
515	6:05	169.15									
520	6:10	167.72									
525	6:15	164.37									
530	6:20	161.05									
535	6:25	156.72									
540	6:30	154.20									
545	6:35	151.65									
550	6:40	149.18									
555	6:45	144.60									
560	6:50	141.10									
565	6:55	138.10									
570	7:00	135.92									
619	7:49	121.26									
630	8:00	119.78									
640	8:10	118.75									
650	8:20	117.73									
660	8:30	117.00									
695	9:05	114.60									