PUNCHED 3/0 VERIFIED 7/3
ROLLA COMPUTATION BRANCH

WRD Exp. (GW)
April 1966

Well No. 074-21W-11 CCDB

WELL SCHEDULE

U. S. DEPT. OF THE INTERIOR GEOLOGICAL SURVEY WATER RESOURCES DIVISION

MASTER CARD

Record by D.AARONSON Source of data FILE Date 2/27/68 Map 1:63,360 COUNTY HWY.

State IOWA [16] County (or town) MARION [63]

Latitude: 41 13 10 N Longitude: 093 14 55 Sequential number: 3

Lat-long accuracy: 2 T 74 N S, R 21 W E Sec 11, NWSE¼, SW¼, SW¼ 5

Local well number: 074 21W 11 CCDB Other number: W-3718 B & M

Local use: 03718 49CITY TIS Owner or name: MELCHER TOWN TEST#15

Owner or name: MELCHER IOWA Address: MELCHER, IOWA

Ownership: (C) County, (F) Fed Gov't, (M) City, (N) Corp or Co, (P) Private, (S) State Agency, (W) Water Dist — M

Use of water: (A) Air cond, (B) Bottling, (C) Comm, (D) Dewater, (E) Power, (F) Fire, (H) Dom, (I) Irr, (M) Mod, (N) Ind, (P) P S, (R) Rec, (S) Stock, (T) Instit, (U) Unused, (V) Repressure, (W) Recharge, (X) Desal-P S, (Z) Desal-other, Other — P

Use of well: (A) Anode, (D) Drain, (G) Seismic, (H) Heat Res, (O) Obs, (P) Oil-gas, (R) Recharge, (T) Test, (U) Unused, (W) Withdraw, (X) Waste, (Z) Destroyed. — W

DATA AVAILABLE: Well data 1 Freq. W/L meas.: INVENTORY Ø Field aquifer char.

Hyd. lab. data:

Qual. water data; type: COMPLETE — C

Freq. sampling: INTERMITTENT (6/21/49) I Pumpage inventory: yes / no, period:

Aperture cards: yes

Log data: GEOLOGIST LOG — G

WELL-DESCRIPTION CARD

SAME AS ON MASTER CARD Depth well: 108 ft 1108 Meas. rept DRILLER'S LOG accuracy 3

Depth cased; (first perf.) 81.7 ft 82 Casing type: STEEL ; Diam. 6 5/8 in 7

Finish: (C) porous concrete, (F) gravel w. (perf.), (G) gravel w. (screen), (H) horiz. gallery, (Ø) open end, (P) perf., screen, (S) sd. pt., (T) shored, (W) open hole, (Z) other — X

Method Drilled: (A) air rot, (B) bored, (C) cable, (D) dug, (H) hyd rot., (J) jetted, (P) air percussion, (R) reverse rotary, (T) trenching, (V) driven, (W) drive wash, (Z) other — C

Date Drilled: JUNE 1949 949 Pump intake setting: ft

Driller: PELLA TANK & PIPE CO. name, PELLA, IA. address

Lift (type): (A) air, (B) bucket, (C) cent, (J) jet, (L) multiple (cent.), (M) multiple (turb.), (N) none, (P) piston, (R) rot, (S) submerg, (T) turb, (Z) other — Deep / Shallow D

Power (type): diesel, elec, nat gas, gasoline, hand, LP gas, wind; H.P. Trans. or meter no.

Descrip. MP TOP OF 6 5/8" PIPE 2.4 ft above/below LSD, Alt. MP 919.4

Alt. LSD: 917 917 Accuracy: (source) ALTIMETER 7

Water Level 72.32 ft above/below MP; Ft above/below LSD 70 Accuracy: TAPED WITHIN 1FT. A

Date meas: JUNE 1949 649 Yield: 19 gpm 19 Method determined I

Drawdown: 15.72 ft 16 Accuracy: 0 Pumping period 24 hrs 24

QUALITY OF WATER DATA: Iron 1.42 ppm 5 Sulfate 53.1 ppm 3 Chloride <0.5 ppm 0 Hard. 340 ppm 7

Sp. Conduct 872 K x 10^6 4 Temp. °F Date sampled 9/15/60 960

Taste, color, etc. SAMPLE TURBID ON RECEIPT IN LAB., NOT FILTERED FOR MINERAL ANALYSIS.

Well No. 074-21W-11 CCDB

Well No. 074-21W-11CCDB

Latitude-longitude 41 d 13 m 10 s N 093 d 14 m 55.3 s W

HYDROGEOLOGIC CARD

SAME AS ON MASTER CARD [1–19]

Physiographic Province: CENTRAL LOWLAND [20–21: 12]

Section: DISSECTED

Int. Plain [22: E]

Drainage Basin: DES MOINES [23–25: 25B]

Subbasin: [26]

Topo of well site: (D) depression, (C) stream channel, (E) dunes, (F) flat, (H) hilltop, (K) sink, (L) swamp, (Φ) offshore, (P) pediment, (S) hillside, (T) terrace, (U) undulating, (V) valley flat [27]

MAJOR AQUIFER: QUATERNARY system, PLEIST. series [28–29: QG] aquifer, formation, group [30–31: GX]

Lithology: SEMICONSOLIDATED SAND & GRAVEL [32–33: VR] Origin: GLACIAL [34: O] Aquifer Thickness: 15 ft

[35–37: 015] Length of well open to: 15 ft [38–40: 015] Depth to top of: 82 ft [41–43: 082]

MINOR AQUIFER: system, series [44–45] aquifer, formation, group [46–47]

Lithology: [48–49] Origin: [50] Aquifer Thickness: ft

[51–53] Length of well open to: ft [54–56] Depth to top of: ft [57–59]

Intervals Screened: NONE

Depth to consolidated rock: 97 ft [60–63: 097] Source of data: WELL CUTTINGS [64: C]

Depth to basement: ft [65–68] Source of data: [69]

Surficial material: SANDY TILL [70–71: BT] Infiltration characteristics: POOR [72: 4]

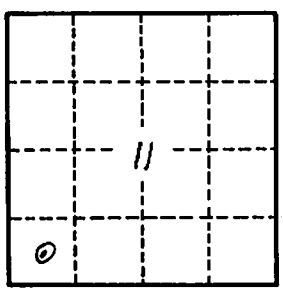
Coefficient Trans: gpd/ft [73–75] Coefficient Storage: [76–78]

Coefficient Perm: gpd/ft^2; Spec cap: 1.18 gpm/ft; Number of geologic cards: [79]

CASING:

84.2 FT OF 6 5/8" PIPE FROM +2.4' TO 81.8'.

OPEN 6" HOLE FROM 81.8' TO 108 FT.



Well No. 074-21W-11CCDB

GPO 857–700

July 6, 1949

Mr. Tom Spolar,
Town Clerk
Melcher, Iowa

Dear Mr. Spolar:

Enclosed is a copy of the results of the pumping test made on Melcher test well No. 15 on June 20-21, 1949.

Very truly yours,

Keith E. Anderson

KEA:AEH
ENC.

July 6, 1949

Mr. Art Bruinekool
Pella Pipe & Tank Company
512 Huber
Pella, Iowa

Dear Mr. Bruinekool:

Enclosed is a copy of the results of the pumping test made recently at Melcher, Iowa.

Bill Hale has been studying these data throughout the past week to prepare some interpretative statements for you. At present, he is out of town for a day or two but the information will be forwarded as soon as possible.

Very truly yours,

Keith E. Anderson

KEA:AEH
ENC.

RESULTS OF PUMPING TEST MADE ON TOWN OF MELCHER TEST WELL 15

MELCHER, IOWA

June 20-21, 1949

NAME: Town of Melcher Test Well 15 (1949)

LOCATION: SE¼ SW¼ SW¼ Sec. 11, T. 74 N., R. 21 W., Marion County.

ELEVATION: Altitude of land surface and drilling curb, 917 feet.

OWNER: Town of Melcher.

CONTRACTOR: Pella Tank and Pipe Company, Pella, Iowa.

DRILLERS: Art Bruinekool and Tunis Schakel.

DRILLING DATES: Started, June 14, 1949. Finished, June 17, 1949.

TOTAL DEPTH: 108 feet.

CASING RECORD: 84.2 feet of 6-5/8-inch pipe from +2.4 feet to 81.8 feet. Open 6-inch hole from 81.8 to 108 feet.

PRINCIPAL AQUIFER: Cemented sand and gravel from 82 to 97 feet.

WATER-LEVEL MEASUREMENTS: Depth to water measurements are referred to top of 6-5/8-inch pipe, 2.4 feet above land surface.

DISCHARGE MEASUREMENTS: Discharge rate obtained by measuring into barrel of known capacity.

TEMPERATURE MEASUREMENTS: The temperature of the water was measured at the end of a 6-foot length of 6-inch pipe.

Observations by W. E. Hale and D. Ross.

TOWN OF MELCHER WELL 15 June 20-21, 1949

TIME	DEPTH TO WATER	G.P.M.	TEMP.	REMARKS
June 20				
1:59 pm	72.32			Non-pumping water level.
2:00				Pumping started.
2:01	75.33			
2:03	75.72			
2:09	75.92	17±	56	Water dirty but clearing.
2:14	76.45			
2:20		17.7±		
2:20:30	76.70		55.5	
2:27	77.0			Water almost clear.
2:32		18.4±		
2:45	78.0			Slight H_2S odor.
2:50	78.05			
2:57		18.9±		
3:00	78.58		55	Air temp. 93°F.
3:10	79.05			Water clear, trace of sand.
3:25	79.50			
3:30	79.80	18.7±		
3:45	80.4			
4:00	81.0			
4:15	81.4	19±		
4:30	81.6			
4:45	82.1			
5:00	82.5	18.5±		
5:15	82.9			
5:30	83.3	19±	55	Air temp. 90°F.
5:45	83.6			Water clear, trace of sand.
6:00	83.9	18.5		
6:15	84.25			
6:30	84.6	18.4		
6:45	85.0			
7:00	85.3	18.4		
7:15	85.55			
7:30	85.85	18.4	55	Air temp. 84°F.
7:45	86.1			
8:00	86.4	18.7		
8:15	86.6			
8:30	86.75	18.6		
8:45	86.9			
9:00	87.0	18.8		Water clear.
9:15	87.15			
9:30	87.20	19.0		
9:45	87.24			
10:00	87.42	19.2		
10:45	87.4			
11:00	87.43	18.4±		
11:30	87.55	18.8		
12:00 am	87.58	18.7		

TIME	DEPTH TO WATER	G.P.M.	TEMP.	REMARKS
June 21				
1:00 am	87.64	18.5±		
1:45	87.7	18.7		
2:00	87.7			
2:30	87.7	18.5±		Water clear, trace of sand.
3:00	87.7	18.4±	55	Air temp. 69°F.
4:30	87.75	18.2±		
5:15	87.9	18.7±		
5:30	87.8			
5:45	87.82			
6:00	87.83	18.5		
6:15	87.81			
6:30	87.85	18.4		
6:45	87.81			
7:40	87.78			
8:00	87.76	18.1		
8:30	87.85	18.2		
8:45	87.88			
9:00	87.85	18.3		
9:15	87.83			
9:30	87.83	18.2		
9:45	87.85			
10:00	87.83	18.2		
10:15		20.		
10:30	87.88	18.7		
10:45	88.05			
11:00	87.95	18.6		
11:15	87.95			
11:30	88.0	18.7		
11:45	87.98			
12:00	88.05	18.9		
12:30 pm	88.03	19±		Water clear.
12:45	87.95			
1:00	88.05	19.0		Water sample collected.
1:15	88.02			
1:30	88.04	18.9		
1:45	88.04			
2:00	88.03	19±		Pumping stopped.
2:00:30	86.35			Recovery measurements.
2:01	85.79			
2:02	85.54			
2:03	85.50			
2:04	85.45			
2:05	85.43			
2:06	85.38			
2:07	85.36			
2:08	85.35			
2:09	85.33			
2:10	85.31			

TIME	DEPTH TO WATER	G.P.M.	TEMP.	REMARKS
2:11 pm	85.29			
2:12	85.27			
2:15	85.21			
2:20	85.16			
2:25	85.11			
2:30	85.06			
2:40	84.74			
2:50	84.82			
2:57	84.07			
3:06	84.78			
3:15	84.76			
3:37	84.62			
3:45	84.59			
4:00	84.51			
4:13	84.45			
4:24	84.42			
4:30	84.36			
5:06	84.16			
5:10	84.15			
5:15	84.13			
5:30	84.04			
5:45	83.95			
6:00	83.86			
6:15	83.77			
6:30	83.70			
July 22 7:00a	80.7			
7:00p	78.8			
23 7:30a	77.1			
4:30p	76.4			
24 10:00a	75.3			
5:00p	74.8			
25 9:00a	73.9			
5:00p	73.5			
26 8:00a	73.0			
5:00p	72.8			Measurements by Earl Brown, Town official, Melcher.
27 9:30a	72.0			
28 3:00p	71.6			
29 3:00p	71.4			
30 9:00a	70.9			
July 1 10:00a	70.4			
12 2:55p	68.4			

9-330

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

File No. { Washington ____ District ____

June 20 Time	Depth to Water	GPM	°F Temp			Remarks						
1:59p	72.32					Non-pumping water levels.						
2:00						Pump started.						
2:01	75.33											
2:03	75.72											
2:09	75.92	17±	56			Water dirty but clearing.						
2:14	76.45											
2:20		17.7±										
2:20:30	76.70		55.5									
2:27	77.0					Water almost clear						
2:32		18.4±										
2:45	78.0					slight H_2S odor						
250	78.05											
2:57		18.9±										
3:00	78.58		55			Air temp 93°						
3:10	79.05					Water clear, trace of sd						
3:25	79.50											
3:30	79.80	18.7±										
3:45	80.4											
4:00	81.0											
4:15	81.4	19±										
4:30	81.6											
4:45	82.1											
5:00	82.5	18.5±										
5:15	82.9											
5:30	83.3	19±	55			Air temp 90°F						
5:45	83.6					Water clear - trace of sand						
6:00	83.9	18.5										
6:15	84.25											
6:30	84.6	18.4										
6:45	85.0											
7:00	85.3	18.4										

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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

File No. { Washington _____ District _____

June 21 Time	DW	GPM	°F Temp					Remarks				
7:15	85.55											
7:30	85.85	18.4	55			Air	temp 84°					
7:45	86.1											
8:00	86.4	18.7										
8:15	86.6											
8:30	86.75	18.6										
8:45	86.9											
9:00	87.0	18.8				Water	clear					
9:15	87.15											
9:30	87.20	19.0										
9:45	87.24											
10:00	87.42	18.2										
10:45	87.4											
11:00	87.43	18.4±										
11:30	87.55	18.8										
12:00M	87.58	18.7										
June 21												
1:00am	87.64	18.5±										
1:45	87.7	18.7										
2:00	87.7											
2:30	87.7	18.5±				Water	clear	trace of sd				
3:00	87.7	18.4±	55			Air	temp 69°					
4:30	87.75	18.2±										
5:15	87.9	18.7±										
5:30	87.8											
5:45	87.82											
6:00	87.83	18.5										
6:15	87.81											
6:30	87.85	18.4										
6:45	87.81											
7:40	87.78											

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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

File No. { Washington .....
District .....

June 6th Time	DW	GPM	°F Temp				Remarks					
8:00 am	87.72	18.1										
8:30	87.85	18.2										
8:45	87.88											
9:00	87.85	18.3										
9:15	87.83											
9:30	87.83	18.2										
9:45	87.85											
10:01	87.83	18.2										
10:15		20.										
10:30	87.88	18.7										
10:45	88.05											
11:00	87.85	18.6										
11:15	87.95											
11:30	88.0	18.7										
11:45	87.98											
12:00	88.05	18.9										
12:30p	88.03	19±					Water clear					
12:45	87.95											
1:00	88.05	19.0					Water sample collected					
1:15	88.02											
1:30	88.04	18.9										
1:45	88.04											
2:00	86.03	19±					Pump off Pumping stopped					
2:00:30	86.35						Recovery measurements					
2:01	85.79											
2:02	85.54											
2:03	85.50											
2:04	85.45											
2:05	85.43											
2:06	85.38											
2:07	85.36											

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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

File No. { Washington _____ / District _____

June 21 Time	DW	GPM	°F Temp				Remarks					
2:08 p	85.35											
2:09	85.33											
2:10	85.31											
2:11	85.29											
2:12	85.27											
2:15	85.21											
2:20	85.16											
2:25	85.11											
2:30	85.06											
2:40	84.94											
2:50	84.82											
2:57	84.07											
3:06	84.78											
3:15	84.76											
3:37	84.62											
3:45	84.59											
4:00	84.51											
4:13	84.45											
4:24	84.42											
4:30	84.36											
5:06	84.16											
5:10	84.15											
5:15	84.13											
5:30	84.04											
5:45	83.95											
6:00	83.86											
6:15	83.77											
6:30	83.70											

U. S. GOVERNMENT PRINTING OFFICE 16—48731-1

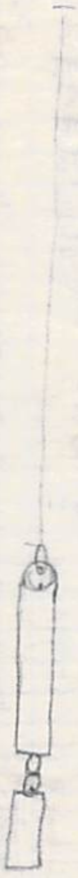
Melcher Town wells

Well #15

June 22	7 AM	80.7
22	7 PM	78.8
23	7:30 am	77.1
"	4:30 p	76.4
24	10.00 am	75.3
24	5:00 pm	74.8
25	9:00 am	73.9
25	5:00 pm	73.5
26	8:00 am	73.0
26	5:00 pm	72.8
27	9:30 am	72.0
28	3.00 pm	71.6
29	3:00 pm	71.4
30	9:00 am	70.9
July 1	10.8 am	70.4

July 12	#3	7:00 pm	117.57
"	#5	2:20 p	88.11
"	15	2:55 p	68.40

	DW	GPM	
1:59 p	72.32		M.P. top casing 2.4' above L.S.
2:00			Pump started
2:01	75.33		
2:03	75.77		
2:09	75.92	17 ±	Temp 54°F water dirty
2:14	76.45		but clearing
2:20		17.7 ±	
2:20:30	76.70		Temp 55.5 F
2:27	77.0		Water almost clear
2:32		18.4 ±	
2:45	78.0		Slight H_2S odor
2:50	78.05		
2:57		18.9 ±	
3:00	78.58		Temp 55°F Air 93°
3:10	79.05		Water clear - trace sd.
3:25	79.5		
3:30	79.8	18.7 ±	
3:45	80.4		
4:00	81.0		
4:15	81.4	19 ±	
4:30	81.6		
4:45	82.1		
5:00	82.5	18.5 ±	
5:15	82.9		
5:30	83.3	19 ±	W 55°F, Air - 90°F
5:45	83.6		Water clear - Trace sd.
6:00	83.9	18.5	
6:15	84.25		
6:30	89.6	18.4	
6:45	85.0		
7:00	85.3	18.4	
7:15	85.55		
7:30	85.85	18.4 ±	Temp Water 55°F Air 84°
7:45	86.1		
8:00	86.4	18.7	
8:15	86.6		
8:30	86.75	18.6	
8:45	86.9		
9:00	87.0	18.8	Water clear



96 - 19.1
39 - 19.0

$$\begin{array}{r} 50. \\ .004\overline{).200} \end{array}$$

99
19.5
80.5

90
21.7
83

195

90.00
195
88.05

90
20.5
81.95

June 20, 1949			Test hole No. 15 (1949)
9:15 p	87.15		
9:30	87.20	19 ±	
9:45	87.24		
10:00	87.42	19.2 ±	hard rain ↓ 1.85 ave.
10:45	87.4		
11:00	87.43	18.4 ±	
11:30	87.55	18.8	
12:00 M	87.58	18.7	
June 21			
1:00 PM	87.64	19.5 ±	
1:45	87.70	18.7	
2:00	87.7		
2:30	87.7	18.5 ±	Water clear - Trace sh
3:00 PM	87.7	18.4 ±	Air 69°F Water 55°F
4:30	87.75	18.2 ±	
5:15	87.9	18.7	
5:30	87.8		
5:45	87.82		
6:00	87.83	18.5	
6:15	87.81		
6:30	87.85	18.4	
6:45	87.81		
7:40	87.78		
8:00	87.78	18.1	
8:30	87.85	18.2	
8:45	87.88		
9:00	87.85	18.3	
9:15	87.83		
9:30	87.83	18.2	
9:45	87.85		
10:00	87.83	18.2	
10:15		20.0	
10:30	87.88	18.7	
10:45	88.05		
11:00	87.95	18.6	
11:15	87.95		
11:30	88.0	18.7	
11:45	87.98		
12:00	88.03	18.9	

June 21, 1949

12:30 p	88.03
12:45 p	87.95
1:00 p	88.05
1:15 p	88.02
1:30 p	88.04
1:45 p	88.04
2:00 p	88.03
2:00:30	86.35
2:01	85.79
2:02	85.54
2:03	85.50
2:04	85.45
2:05	85.43
2:06	85.38
2:07	85.36
2:08	85.35
2:09	85.33
2:10	85.31
2:11	85.29
2:12	85.27
2:15	85.21
2:20	85.16
2:25	85.11
2:30	85.06
2:40	84.74
2:50	84.82
2:57	84.07
3:06	84.78
3:15	84.76
3:37	84.62
3:45	84.59
4:00	84.51
4:13	84.45
4:24	84.42
4:30	84.36
5:06	84.16
5.10	84.15
5:15	84.13
5:30	84.04
5:45	83.95

GPM. Melchea Test Hole 15 (1949)

19± Water clear

19.0 Water sample collected

18.9

19± Pump off 2:00

6:00 p - 83.86
6:15 p - 83.77
6:30 p 83.70

Marion

July 20, 1949

Mr. Tom Spolar,
Town Clerk
Melcher, Iowa

Dear Mr. Spolar:

Enclosed is a report on the mineral analysis of water from the 108-foot town of Melcher test hole No. 15 as shown by a sample collected by Mr. W. E. Hale on June 21, 1949.

If you have any questions concerning this report, please do not hesitate to let me hear from you.

Very truly yours,

Keith E. Anderson

KEA:AEH
ENC.

Marion Co.

July 20, 1949

Mr. Art Bruinekool
Pella Pipe & Tank Co.
512 Huber
Pella, Iowa

Dear Mr. Bruinekool:

Enclosed is a report on the mineral analysis of water from the 108-foot town of Melcher test hole No. 15 as shown by a sample collected by Mr. W. E. Hale on June 21, 1949.

If you have any questions concerning this report, please do not hesitate to let us hear from you.

Very truly yours,

Keith E. Anderson

KEA:AEH
ENC.

W-3718

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

RECORD OF WELL

Location: 1± mi W
Town: Melcher (N E / S W): County Marion
SW SE SE sec. 11 T 74 N., R. 21 W. E. Twp.

Well name and number Melcher Town Test No. 15

Owner → Address

Tenant Address

Contractor Pella Tank & Pipe Co Address Pella

Drillers Tunis Schakel

Drilling dates June 14-17, 1949

Well data:
Elevations: Drilling curb feet; Land surface feet

Determined by

Topographic position

Total depth: Reported 108 feet, Measured feet

Drilling method Cable

Hole and casing date 6 5/8" OD 84' of 15 lb pipe from + 2'6" to 81'6"

Original depth to water ft. above / below Date

Original elevation of water level ft.; Source of data

Sources of water: Principal Pleistocene SS ; 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 ALALYSES (in parts per million)

Date samples	6/1/49			
Sampled by	W F Hale			
Total solids	522			
Insoluble matter	15.5			
Alkalinity (Meo)	430			
Alkalinity (Phm)	0			
pH	7/5/49 7.8			
Fe_2O_3- Mn_2O_3-Al_2O_3	11.5			
Alkali as sodium	94.8			
Calcium	70.			
Magnesium	26.6			
Iron (unfiltered)	1.5			
Manganese	0			
Nitrate	0			
Fluoride	.2			
Chlordie	1.			
Sulfate	32.1			
Bicarbonate	524.6			
Hardness (ppm)	287			
Hardness (gpg)	16.8			

Remarks

Laboratory data: Sample storage location CFI-8

Sample range 0'-108' No. spls. 20 No. dupls. & cond. 20 F
Spls. prepared by J.C.C Washed range 95'-108' by J.C.C
Driller's log and cond.
Insoluble residues: Prepared by Studied by W Betts Strip log June 29/49
Microscopic study strip log
Gen. log Correl. by

DRILLER'S NOTEBOOK

T-3718

WELL RECORD

DRILLER Hot Springs Land Co

ADDRESS .....

.....

OWNER Town of Melcher

ADDRESS Test hole #15 (Corp

.....

RETURN TO

IOWA GEOLOGICAL SURVEY

IOWA CITY, IOWA

WHEN RECORD IS COMPLETED PUT IN ENVELOPE AND MAIL TO

THE DIRECTOR

IOWA GEOLOGICAL SURVEY

IOWA CITY, IOWA

DRILLER'S NOTE

It is important that a driller's notebook, filled out as completely as possible, be sent to the Iowa Geological Survey at the completion of each hole. A number of drillers have found it convenient to string samples from a single well on a heavy wire and attach the log book to them. A hole has been punched in the log book for this purpose.

Sample sacks and log books will be furnished by the Geological Survey. A copy of the log book will be made and returned if desired by the driller.

SUGGESTIONS TO DRILLERS

1. Samples should be taken from each bed passed through, and never more than 5 feet apart, even in the same bed.

2. Samples should not be washed, except to remove excess drilling mud, as washed samples may give a wrong idea of the character of the bed.

3. Fill out the label on each sample bag with the name of the well and the depth interval which the sample represents.

4. Make frequent use of the "Description" column to explain the material being drilled.

5. Note depth and thickness of all water-bearing layers.

6. Note the quality of the water from each layer: as hard, soft, salty, alkaline, or sulphur bearing.

7. Note height to which water from each layer rises in well, and give flow or capacity in gallons per minute.

8. Fossils, such as oyster, clam, and other shells, are important and should be placed in bags with the material with which they are found and carefully labeled as to the depth from which they were obtained.

9. If you do not understand what is wanted, or desire information on any point, write to the Iowa Geological Survey, Iowa City, Iowa.

10. Samples may be boxed and sent to IOWA GEOLOGICAL SURVEY, IOWA CITY, IOWA, EXPRESS COLLECT.

The Iowa Geological Survey desires to assist and cooperate with owners and drillers in every way possible, and will be glad to answer questions and assist in the solution of problems at any time.

PB—14612 SP

WELL RECORD

Well is located 1± miles N E W and miles N E W from Melcher (Nearest Town) in Marion (County),

in the SW¼ SE¼ SW¼ Sec. 11 T. 74N R. 21W

Owner Town of Melcher Test Well No. 15

Postoffice address

Contractor Pella Tank & Pipe Co. (A. Brinkhoff)

Address Pella, Iowa

Driller Tunis Schakel

Well begun June 14, 19 47;

completed June 17, 19 47

Rig used—Cable, Rotary, Jet, or

Depth of well 108 (Feet)

Size of hole (note total amount of each size)

Main water supply at (Feet below surface)

Final water head (Feet above or below surface)

Is well pumped?

Yield (Gallons per minute)

Water level when pumping

Position of well (Upland, valley, side hill, etc.)

Date and Time	Water Level	SOURCE OF WATER		Production in Gallons per Minute	Pumping Level
		Depth	Type of Rock		
			Pleist. ss		
	see pump test				

NOTE: Water levels should be recorded at time of change AND at regular intervals; for example each morning before drilling starts or at the end of each 100 feet of drilling.

RECORD OF PERMANENT CASING

Size Pipe	Amount of Pipe	Depth to Bottom of Pipe	Depth to Top of Pipe	Type* and Weight of Pipe	DIAGRAM OF WELL
6 5/8"	44'	81.5'	+2.5'	16	

*As cast, wrought iron, steel, concrete, etc.

Is screen used? ..... Diameter ..... (Inches)

Length ..... (Feet) Depth to bottom .....

Depth to top ..... Slot size .....

Are packers or seals used? .....

Kind .....

Where used .....

Kind of pump ..... Dia. ..... (Inches)

Capacity of pump ..... (g.p.m.)

Power used ..... (Kind and amount)

Depth to bottom of pump line ..... feet,

including ..... feet tailpiece.

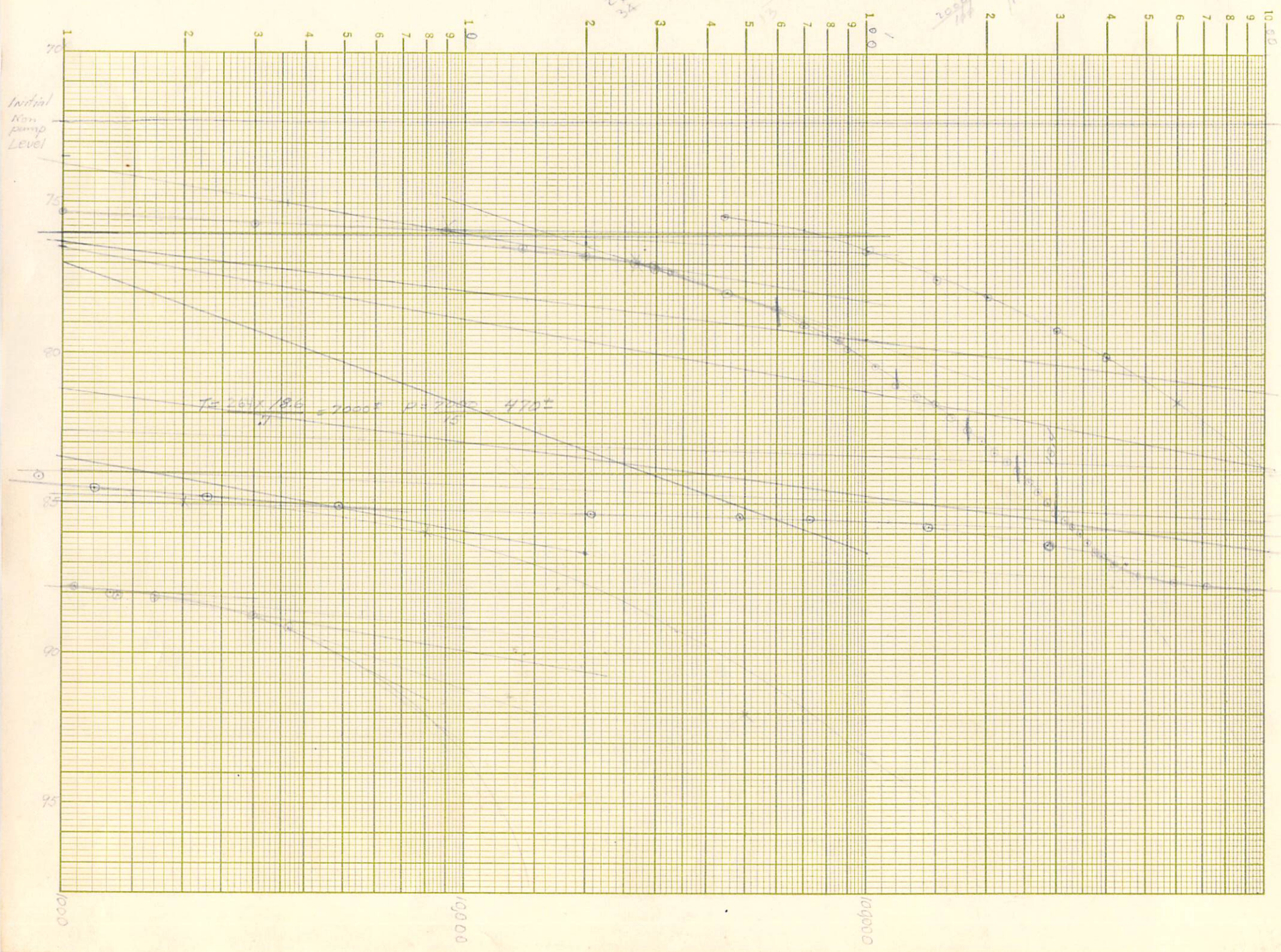
Remarks on construction of well .....

.....

Sample No.	DEPTH From	DEPTH To	THICKNESS	DESCRIPTION OF BEDS KIND OF ROCK, COLOR, HARD OR SOFT, WATER, ETC.
	0	5		Top soil
	5	10		Yellow clay
	10	15		" "
Pipe set	15	20		" "
	20	25		" "
	25	30		Blue clay
	30	35		sand
	35	40		" "
	40	45		" "
	45	50		Blue clay
	50	55		" "
	55	60		" "
	60	65		" "
	65	70		" "
	70	75		" "
	75	82		" "
	82	85		sand

Sample No.	DEPTH From	DEPTH To	THICKNESS	DESCRIPTION OF BEDS — KIND OF ROCK, COLOR, HARD OR SOFT, WATER, ETC.
	85	97		gravel
	97	105		shale
	105	108		" "

KEUFFEL & ESSER CO., N. Y. NO. 358-73
Semi-Logarithmic, 3 Cycles X 10 to the ½ Inch.
MADE IN U. S. A.



KEUFFEL & ESSER CO., N. Y. NO. 358-73
Semi-Logarithmic, 3 Cycles X 10 to the 1/5 inch.
MADE IN U.S.A.