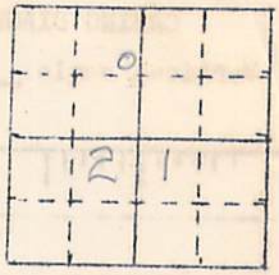
075-06W-21BAD

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

W-1868

RECORD OF WELL



Location:

Town: Ainsworth (N E / S W); County Washington

SE NE NW sec. 21 T. 75 N., R. 6 E. W. Oregon Twp.

Well name and number Ainsworth Town Well No 2

Owner Town of Ainsworth Address

Tenant Address

Contractor D. E. Edwards Address West Branch

Drillers Frank Colson

Drilling dates May 1944 completed May 26

Well data:

Elevations: Drilling curb 724 feet; Land surface 725.5 feet

Determined by W. E. H. & D. A. B.

Topographic position hill slope

Total depth: Reported 202 feet, Measured feet

Drilling method cable tool

Hole and casing data 87' of 8-inch casing 0 to 87' Temporary
(Give amount, size, kind, and depth of all casing; type and position of seals and packers; cementing; how finished--perforated pipe, screen, gravel pack, open hole, etc.)
106.5 ft of 6-inch (W. I.) casing from +2.5 to 104 ft.
open 6-inch hole from 104 to 200 ft.

Original depth to water ft. above / below Date

Original elevation of water level ft.; Source of data

Next to old well no good static level

Sources of water: Principal Mississippian; Others

Production data: Date May 27, 1944

Static depth to water 75 Measuring point 728'

Pumping level May 26 158-159 reported at 55 g.p.m.

May 27 159 ft (155?) 36

Specific capacity _____ g.p.m. per ft. drawdown; Temperature 53 1/2 °F

Pump data; Type pump Force Column Dia. _____ Length _____

Cylinder or bowls: Dia. _____ Length _____ Suction pipe _____

Power Gas. engine Airline _____

Estimated rate of production: _____ g.p.m. for _____ hrs. a day

Use of water City Supply

WATER ANALYSES (in parts per million)

Date sampled	May 27 1944			
Sampled by	W.E.H & D.A.B.			
Total solids	468			
Insoluble matter	16.5			
Alkalinity (Meo)	426.0			
Alkalinity (Phn)	0.0			
pH	7.1			
Fe_2O_3+ Mn_2O_3+Al_2O_3	8.5			
Alkali as sodium	8.9			
Calcium	100.1			
Magnesium	44.6			
Iron (unfiltered)	0.8			
Manganese	0.00			
Nitrate	3.5			
Fluoride	0.3			
Chloride	6.5			
Sulfate	7.2			
Bicarbonate	519.7			
Hardness (ppm)	435			
Hardness (gpg)	25.4			

Remarks _____

Laboratory data: Sample storage location _____

Sample range 0-202 No. spls. 16 No. dupls. & cond. 16

Spls. prepared by Schultz Washed range _____ by _____

Driller's log and cond. _____

Insoluble residues: Prepared by _____ Studied by _____ Strip log _____

Microscopic study 0-202 E.S. D.J.B. strip log E.S. D.J.B.

Gen. log Yes. Correl. by E. Schultz D.J. Baldwin

OFFICE COPY

STATE OF IOWA
IOWA GEOLOGICAL SURVEY
GEOLOGY ANNEX
IOWA CITY

Results of Production Test

at

Ainsworth Town Well No. 2

May 26-27, 1944

Well name: Ainsworth Town Well No. 2
Location: SE¼ NE¼ NW¼ sec. 21, T. 75 N., R. 6 W., Oregon Township.
Elevation: Land surface, 725.5 feet above sea level.
Owner: Town of Ainsworth:
Contractor: D. E. Edwards, West Branch, Iowa
Driller: Frank Cofron
Drilling dates: Started May, 1944; finished May 26, 1944
Depth: 200 feet
Casing: 87 feet of 8-inch casing from 0 to 87 feet (temporary)
106.5 feet of 6-inch (W.I.) casing from +2.5 feet to 104 feet.
Open 6-inch hole from 104 feet to 200 feet.
Pumping equipment: Lift pump. Between 158 and 159 feet of 4½-inch column was set at a depth of about 155 feet below land surface. The pump cylinder was operated by the drilling rig at the rate of about 34 strokes per minute.
Discharge measurements: The pumping rate was determined by discharging the water into an 88 gallon tank and observing the time to fill the tank.
Water level measurements: The non-pumping water level when the No. 1 well, 26.5 feet to the north, was idle was reported to be 75 feet below land surface. The water level in the new well dropped 18 feet when the old well was pumped 1 hour at the rate of between 35 and 40 gallons a minute. Measuring point during the latter part of the production test was the top of the wooden clamp 2.65 feet above land surface, 2.1 feet above concrete floor of pump house and 2.4 feet above top of temporary 8-inch casing. All measurements are referred to the top of the wooden clamp, elevation 728 feet above sea level. Measurements were made with use of electric line.

cc to The Mayor, Ainsworth, Iowa, June 10, 1944
D. E. Edwards, West Branch, Iowa, June 10, 1944
Stanley Engineering Co. - Muscatine, Iowa - Nov 30, 1945

Time	Depth to water in feet	Discharge Gallons per min.	Remarks
May 26			
*4:00 p.m.			Pumping started.
4:30±	*158-159	*64	
Evening	*158-159	*55	
May 27			
11:03 a.m.			Water Temp. 53½°F.
11:15		36	
11:59	159.0		
12:06 p.m.		36	Water Temp. 53½°F., Air Temp. 80°F.
12:23	158.1		
12:30	158.23		Water sample collected.
12:37			Pumping stopped.
12:39	122.09		
12:40	117.61		
12:41	122.49		
12:42	115.14		
12:43	111.84		
12:44	110.04		
12:45	109.66		
12:46	109.44		
12:47	109.27		
12:48	109.10		
12:49	107.67		
12:50	106.82		
12:51	106.19		
12:52	105.75		
12:53	105.27		
12:54	104.92		
12:55	107.55		
12:56	104.19		
12:57	103.92		
12:58	103.64		
12:59	103.39		
1:00	103.14		
1:05	105.12		
1:10	101.02		
1:30	98.51		
1:37	97.76		
1:50	96.59		
2:00	95.87		
2:22	94.44		
2:27	94.19		
2:30	94.04		
2:31			Old well pump started.
2:32	104.17		Old well pump stopped.
2:34	98.35		Old well pump started.

* Reported by contractor.

Time	Depth to water in feet	Discharge Gallons per min.	Remarks
2:35 p.m.	101.08		
2:36	102.39		
2:37	103.36		
2:38	104.02		
2:39	104.59		
2:41	105.47		
2:42	105.79		
2:43	106.13		
2:45	106.65		
2:47	107.13		
2:53	108.29		
3:48	115.74		
4:57	119.81		