IOWA
STATE DEPARTMENT OF HEALTH
DIVISION OF PUBLIC HEALTH ENGINEERING
DES MOINES

Town What Cheer, Iowa — Date August 31, 1939

Report on Municipal Water Supply

By F. W. Pickworth and H. W. Poston — Approved Director Division of Public Health Engineering

On the above date Mr. H. W. Poston of this division, and the writer accompanied by Mr. Everett Hemsley, Mayor, conducted a sanitary resurvey of the What Cheer municipal water supply. At this time sample #2253 from a tap at the well, and #2250 from a tap at Mr. Hemsley's garage were collected and submitted to the State Hygienic Laboratory at Iowa City for bacteriological examination. Also at this time samples U-465, U-461, U-478, and U-480 were collected and submitted to the State Hygienic Laboratory for complete mineral analysis. The samples for mineral analysis were collected from a tap at the well after the well had been pumped for eight hours at a rate of 80 gallons per minute.

Since the last regular survey by a member of this division, the city of What Cheer has constructed a new 287 foot well located in the city park. This well is 16 inches in diameter with a 10 inch casing grouted with concrete for a distance of 62 feet, eight inches. From 60 feet to a depth of 140 feet is cased with eight inch pipe. The well was tested at 90 gallons per minute with a drawdown of 85 feet. The following is a log of the well as furnished by Thorpe Bros. Well Co.

Feet	Soil or Formation
0- 15	Yellow Clay
15- 20	Yellow clay sandy
20- 31	Blue clay
31- 35	Coal
35- 38	Blue clay
38- 44	Gray shale and slate
44- 55	Hard slate and rock
55- 56	Sulphur balls
56- 58	Fine clay and shale
58- 72	Sandy lime
72- 92	Lime rock
92- 97	Fine clay
97-107	Hard lime
107-110	Harder rock - broken crevices filled with mud.
110-125	Hard even lime
125-135	Hard lime rock
135-139	Softer lime rock white

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Feet.	Soil or Formation
139-145	Hard white lime
145-152	Hard lime rock
152-155	Soft lime
155-165	Hard lime
165-169	Lime crevices
169-184	Lime rock
184-217	Hard lime rock
217-230	Hard sandy limestone
230-270	Hard lime rock
270-287	Gray shale

The well appears to be properly constructed and protected. The casing is brought up above the surface of the ground two feet, eight inches and an approved type concrete base provided for the pump. The water is pumped directly to the system from the well. The old wells and treatment plant have been abandoned but not disconnected from the system. The writer suggests that this be done.

The writer noticed no major insanitary features surrounding the well. A main sanitary sewer runs within 75 feet of the well on the west and another sewer within 300 feet on the south. These sewers are of vitrified clay pipe with mortar joints layed in clay. In view of the fact that the sewer is in clay and the well is sealed with concrete for a distance of 62 feet, the writer feels that the sewer is not a hazard to the well.

The city has delayed action on the building of a permanent structure over the well until it is sure this well will continue to deliver enough water to supply the city. The pump motor is covered by a temporary structure to protect against the weather.

Respectfully submitted,

F. W. Pickworth
Assistant Engineer

FWP/EA