N 8630

IOWA GEOLOGICAL SURVEY
In Cooperation with U. S. Geological Survey
RECORD OF WELL

Location: West side of Town

Field checked 1978

Town: Ruthven (NE) (SW) :County Palo Alto
sec. 18 T. 96 N R. 34 W. E.

SWNESWSE sec. 18 T. 96 N., R. 34 W. _____ Twp.

Well name and number _____

Owner Town of Ruthven (1957) Address Ruthven, Iowa

Tenant _____ Address _____

Contractor Rasmusse Address Ida Grove

Drillers _____

Drilling dates _____

Topo Elev 1410'

Well data:

Altitudes: Drilling curb _____ feet; Land surface _____ feet

Determined by _____

Topographic position _____

Total depth: Reported 511 feet, Measured _____ feet

Drilling method Rotar

Hole and casing data _____

Original depth to water 210 ft. above below _____ Date _____

Source of data _____

Sources of water: Principal _____

Others _____

Production Data

Date				
Static water level	210			
Measuring point				
Pumping water level	230			
Yield (g. p. m.)	250			
Duration of pumping				
Specific capacity				

Pump Data

Type pump _____ Column diameter and length _____

Cylinder or bowls diameter and length _____

Suction pipe _____ Airline _____

Power _____ Production _____ g. p. m. for _____ hours per day

Use of water _____

Dissolved constituents and properties (in parts per million except as indicated)

Date sampled				
Sampled by				
Silica (SiO_2)				
Iron (Fe)				
Manganese (Mn)				
Calcium (Ca)				
Magnesium (Mg)				
Potassium (K)				
Sodium (Na)				
Carbonate (CO_3)				
Bicarbonate (HCO_3)				
Sulfate (SO_4)				
Chloride (Cl)				
Fluoride (F)				
Nitrate (NO_3)				
Dissolved solids				
Hardness (as $CaCO_3$)				
Total				
Grains per gallon				
Noncarbonate				
Alkalinity (as $CaCO_3$)				
pH				
Specific conductance (micromhos at 25°C)				
Temperature (°F)				
Analysis No.				

Laboratory Data

EM8-13

Well No. [illegible] Sample range 213 - 511 No. of samples 60

No. of dupls. and cond. 60 Good Washed range 403 - 511

Samples prepared by C Hurst Date 15/8/57

Logged by NORTHUP Date 9/6/57

Correlations by _____ Date 9/6/57

IOWA GEOLOGICAL SURVEY
Iowa City, Iowa
WELL OR WATER SAMPLE DATA Bottle No.____

TOWN Ruthven COUNTY Palo Alto

LOCATION ____ sec. ____ T. ____ N.R. ____ E. W. ____ Twp.

OWNER OF WELL City WELL NO. North Well

USE OF WATER: City Supply(✓); Private-Domestic( ); Public Drinking( ); Livestock( ); Industrial( ); School Supply( ); Air Conditioning( ); Cooling( ); ( );

CONSTRUCTION OF WELL: Drilled (✓); Gravel-Pack type (✓); Driven ( ); Dug ( ); Bored ( ); Jetted ( ) ( ).

CONTRACTOR A.O. Rasmussin - Ida Grove DATE STARTED DATE FINISHED March 29 1957

CASING OR CURBING DATA: (Show by diagram on opposite side of sheet the kind, length and depth of top and bottom of each size of pipe, the amount of overlaps, position of seals or packers, pipe perforation and screens, etc.)

10" csg. from 0' to 487'; 25' of 5" Johnson screen; 21' of 5" blank from 465' - to 511. - 24' of gravel pack. - See diagram on back

WELL DATA

Curb Elevation ____ Ft. Present Depth 511 Ft. Final Depth 511 Ft.

Ground Elevation ____ Ft. Topographic Position ____

Static Level (Depth to Water (~~Above~~) (Below) Curb) 215 Ft. Pumping Level 235 Ft.

Amount of Drawdown 20 Ft. pumping at 250 g.p.m. in ____ hrs. ____ minutes.

Specific Capacity ____ g.p.m. per ft. drawdown.

Type of Pump Fairbank-Morse Power - 220/440 - 60 cycle. - Homer type turbine

Depth of Bottom of Pump 270 ft. with ____ ft. of suction pipe.

TEMPERATURE: Air 52° °F.; Water ____ °F., measured after well had pumped ____ hours. ____ mins. at ____ g.p.m.; ____ ft. from pump after water had passed through the following pipe ____ Time ____ (A.M.) (P.M.)

SOURCE OF WATER: Recent (Type and Depth) ____

Glacial Formations (Type) ____ at ____ ft. to ____ ft.

Limestone or Dolomite (Age) ____ at ____ ft. to ____ ft.

Sandstone (Age) Dakota at ____ ft. to ____ ft.

Principal Producing Formation ____

REMARKS: ____

Sample taken for: Mineral Analysis ( ); Sanitary Analysis ( )

Data Collected by Smith Date ____

REPORT Analysis to H. G. Hershey, Iowa Geological Survey, Iowa City

APR 22 1958

STATE HYGIENIC LABORATORY
IOWA CITY, IOWA

April 22, 1958

Kruse Engineering Service
Spencer, Iowa

Dear Mr. Kruse:

C We have completed the analysis which was requested on the sample collected by Mr. T. H. Cate for the Town of Ruthven on April 14, 1958.

O The statement was made on the data card that these tests were to demonstrate the quality of the treated and raw water supplies at this town. The few determinations performed on these small samples are not sufficient to adequately demonstrate water quality as we think of it today. Complete mineral analyses give information on many critical P constituents which could not be analyzed on the samples which were submitted in this case.

Y This laboratory along with the State Health Department and the State Geological Survey has a program for complete mineral analyses on all municipal supplies. The analyses on Ruthven supplies have not been handled as yet but will be in the near future. These tests will be done on a Fee Exempt basis through the sponsorship of the Division of Public Health Engineering, Iowa State Department of Health, Des Moines, Iowa.

Very truly yours,

R. L. Morris
Principal Chemist

RLM:mrw

cc: Town of Ruthven
State Dept. of Health
Geology ✓

WELL RECORD

Well is located.....miles N/S and.....miles E/W from

Redwood (Nearest Town) in Palo Alto (County),

in the West ¼ 1 ¼ Sec.....T.....R.....

Owner Town Well No.....

Postoffice address .....

Contractor .....

Address .....

Driller .....

Well begun....., 19.....;

completed....., 19.....

Rig used—Cable, Rotary, Jet, or.....

Depth of well 511 (Feet)

Size of hole (note total amount of each size).....

.....

Main water supply at..... (Feet below surface)

Final water head 210 (Feet above or below surface)

Is well pumped?.....

Yield 250 GPM (Gallons per minute)

Water level when pumping 230'

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