

**IOWA STATE DEPARTMENT OF HEALTH
DIVISION OF PUBLIC HEALTH ENGINEERING AND INDUSTRIAL HYGIENE**

GROUND WATER

Town Dayton County Webster Date January 4 19 55
 WELL NO. 22 Treatment Bldg. No. 2 in pit
 Active Yes Standby Abandoned Replaced by No.
 LOCATION: Street in treatment building 2 blocks north of town
 Sec. 14 T 86 N.R. 28 East West
 Lot Block Township
 OWNERSHIP Municipal Date Installed Completed June 17, 1931
 CONTRACTOR Thorpe Well Co. Address Des Moines, Iowa
 DATE RECONDITIONED summer 1955 To be pulled by Thorpe in
 Contractor Address
 CONSTRUCTION EMPLOYED: Deep well - drilled, cased to 505' level -- open hole from
505' to the 700' level -- cased from 700 to 966' level -- open hole below 966' to 1240'
level
 CURB ELEVATION Top of concrete Dumphouse floor REFERENCE 0.00
 TYPE OF CONSTRUCTION deep well Depth 1240 ft. Diameter 13 in.
 CASING: Material cast iron Condition new in 1931
 SCREEN: Material no screen Length ft. Diameter in. Slot Opening in.
30" concrete pedestal surrounding
 WELL SEALED Yes How top of casing Approved Yes
 WELL VENTED Yes How 1" turned down / screened casing vent Approved Yes
 TYPE OF PUMP F.M. turbine Make Fairbanks-Morse Pumping at rate of 135 GPM
 Capacity 275 GPM Lubricated Water
 DEPTH TO TOP OF POWLS 180' ft. Tail Pipe no ft.
 PUMP CONTROL: Manual Yes Automatic Semi-Automatic
Oct. 8, '54 -- 96.23 209.59 = 106.41 54.
 STATIC LEVEL 71.46 ft. Pumping Level 103 ft. Drawdown 31.54 ft.
 OPTIMUM SPECIFIC YIELD 475 GPM Drawdown 6 to 8 ft. Time 24 hrs.
 RATE OF DRAWDOWN Rate of Recovery
 TEMPERATURE OF WATER °F Where Measured Temp. of Atmosphere °F
 DRAWDOWN GAUGE INSTALLED Yes
 TOPOGRAPHICAL POSITION OF WELL Highland -- flat
 WELL SITE INVESTIGATED ? Approved Why not
 WELL CONSTRUCTION REVIEWED Approved Why not
 PIT CONSTRUCTION: Purpose Note Size and Description
 CONDITION: Drainage Facilities
 PUMP INSTALLATION: Approved Yes Why Not
 CUTTINGS FROM WELL PRESERVED: ? Where
 DEPTH TO BED ROCK 410 Depth to Water-bearing Stratum 860 to 900 ft.
 SOURCE OF WATER: Principal Formation Shell rock Other Dolomites & limestone at 1240'

DATE RECONDITIONED *to be pulled by Thorpe Well Co. in summer 1955* Contractor *Thorpe Well Co.* Address *Thorpe Well Co.*

CONSTRUCTION EMPLOYED: *Deep well - drilled, cased to 505' level -- open hole from 505' to the 700' level -- cased from 700 to 966' level -- open hole below 966' to 1240' level*

Top of concrete CURB ELEVATION *from house floor* REFERENCE *0.00*

TYPE OF CONSTRUCTION *deep well* Depth *1240* ft. Diameter *13* in.

CASING: Material *cast iron* Condition *new in 1931*

SCREEN: Material *no screen* Length *30'* ft. Diameter *13* in. Slot Opening *30'* in. *concrete pedestal surrounding*

WELL SEALED *Yes* How *top of casing* Approved *Yes*

WELL VENTED *Yes* How *1" turned down / screened casing vent* Approved *Yes*

TYPE OF PUMP *F.M. turbine* Make *Fairbanks-Morse* Pumping at rate of *135* GPM Capacity *275* GPM Lubricated *Water*

DEPTH TO *TOP OF POWLS* *180'* ft. Tail Pipe *no* ft.

PUMP CONTROL: Manual *Yes* Automatic *Oct. 8, '54 -- 96.73* Semi-Automatic *209.59 = 106.41 SL.*

STATIC LEVEL *71.46* ft. Pumping Level *103* ft. Drawdown *31.54* ft.

OPTIMUM SPECIFIC YIELD *475* GPM Drawdown *6 to 8* ft. Time *24* hrs.

RATE OF DRAWDOWN *Rate of Recovery*

TEMPERATURE OF WATER *°F* Where Measured *Temp. of Atmosphere* *°F*

DRAWDOWN GAUGE INSTALLED *Yes*

TOPOGRAPHICAL POSITION OF WELL *Highland -- flat*

WELL SITE INVESTIGATED *?* Approved *Why not*

WELL CONSTRUCTION REVIEWED *Approved* *Why not*

PIT CONSTRUCTION: Purpose *None* Size and Description

CONDITION: Drainage Facilities

PUMP INSTALLATION: Approved *Yes* Why Not

CUTTINGS FROM WELL PRESERVED: *?* Where

DEPTH TO BED ROCK *410* Depth to Water-bearing Stratum *860 to 900 ft.*

SOURCE OF WATER: Principal Formation *Shell rock* Other *Dolomites & limestone at 1240'*

Mineral analysis collected Sept. 21, 1950, Lab. No. 6392
Total Hardness *51.2 gpg* ppm. Total Iron *0.8* ppm. Sulfates *665* ppm. Fluorine *2.8* ppm.
Manganese *none* ppm. pH *7.4* CO₂ *ppm* Alkalinity P₂₀ -- T=268
Water has slight H₂S odor

REMARKS: *Well operating o.k., however Thorpe Well Co. will pull this equipment and check for operating conditions during summer of 1955.*

The use of this well rotated with Well #3, however this Well #1 used primarily for all water required in backwashing iron removal units and regenerating zeolite softener unit.

To Iron Removal + Softener.



