IOWA GEOLOGICAL SURVEY

In Cooperation with U. S. Geological Survey

RECORD OF WELL

W. 6210

Location:

Town: Auburn (NE) (SW) :County Sac

SE NW NW sec. 23 or 24 T. 86 N., R. 35 W. E. Twp.

Well name and number Auburn Town Well

Owner TOWN OF AUBURN Address

Tenant Address

Contractor Thorpe Well Co. Address

Drillers

Drilling dates 1952 on 1953

Well data:

Altitudes: Drilling curb feet; Land surface 1239 feet

Determined by altimeter (Rahn & Toland)

Topographic position

Total depth: Reported 237 feet, Measured feet

Drilling method

Hole and casing data

Original depth to water ft. above below Date

Source of data

Sources of water: Principal

Others

Production Data

Date				
Static water level				
Measuring point				
Pumping water level				
Yield (g. p. m.)				
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

Location EC5-2

Well No. W-6210 Sample range 185-237 No. of samples 12

No. of dupls. and cond. 12 Good Washed range —

Samples prepared by Palensky, DeRoma Date 11/3/53

Logged by NORTHUP Date 4/7/54

Correlations by NORTHUP Date 4/7/54

086-35W-24 BBD

KDD

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey
Water Resources Division

W-6210

Water Quality
(ppm)

Card Q

State: IOWA (1 2) 16 County: SAC (3 4) 81 Town: AUBURN

Well No. (5–11) Latitude 42 15 01 N; (12–18) Longitude 094 52 28; Seq. No. (19) 1; Date (20–25) M 11 D 25 Y 62

Sampling Depth (26–29) 237; Type (30) 1; Kx10^6 (31–35) 1480; pH (36–38) 7.3; Temp. °F (39–41)

SiO_2 (42–44) 25.; Ca (45–49) 198.; Mg (50–53) 60.; Na (54–58) 66.; K (59–61) 4.8

HCO_3 (62–65) 488; CO_3 (66 67) 0; SO_4 (68–72) 460.; Cl (73–78) 10.; Source No. (79–80) 3 Q

Card R

Duplicate Columns 1-25 from Card Q

F (26–28) .4; NO_3 (29–32) less than .4; PO_4 (33–35); B (36–38); Al (39–41); Fe (42–45) .14

Mn (46–49) .88; Cu (50–52); Pb (53 54); Zn (55–57)

Solids Determined (58–63) 1150; Calc. (64–69); Hardness Ca,Mg (70–73) 740; Non-Carb. (74–77) 340

Color (78 79); No. (80) R

Card S

Duplicate Columns 1-25 from Card Q

Br (26–28); I (29–31); Alk. as $CaCO_3$ (32–35) 400; Free CO_2 (36–38); SAR (39–41)

RSC (42–44); ABS (45–47); (48–50)

Alpha (pc/l) (55–57); Beta (pc/l) (58–60); Ra (pc/l) (61–63); U (ug/l) (64–66)

No. (80) S

Recorded by: D. AARONSON

Verified PMJ
Punched by: Punched FCH Date:

Published:

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey
Water Resources Division

Water Quality
(ppm)

Local Well No. 086-35W-24BBD
Aquifer Code(s) KIDI
Owner's Name AUBURN TOWN (1952)
W Number 06210

Card Q

State: IOWA (1-2: 19) County: SAC (3-4: 81) Town: AUBURN, IOWA

Well No. Latitude (5-11): 421501N Longitude (12-18): 0945228 Seq. No. (19): 1 Date (20-25, M D Y): 032353

Sampling Depth (26-29): 237 Type (30): 1 Kx10^6 (31-35): 12500 pH (36-38): 7.0 Temp. °F (39-41):

SiO_2 (42-44): . Ca (45-49): 200. Mg (50-53): 57. Na (54-58): 56. K (59-61): 5.0

HCO_3 (62-65): 476 CO_3 (66-67): 0 SO_4 (68-72): 481. Cl (73-78): 4.0 Source No. (79-80): 3 Q

Card R

Duplicate Columns 1-25 from Card Q

F (26-28): .4 NO_3 (29-32): 4.4 PO_4 (33-35): . B (36-38): . Al (39-41): . Fe (42-45): .76

Mn (46-49): 1.2 Cu (50-52): . Pb (53-54): . Zn (55-57): .

Solids Determined (58-63): 1170 Calc. (64-69): Hardness Ca,Mg (70-73): 739 Non-Carb. (74-77): 349

Color (78-79): No. (80): R

Card S

Duplicate Columns 1-25 from Card Q

Br (26-28): . I (29-31): . Alk. as $CaCO_3$ (32-35): 390 Free CO_2 (36-38): SAR (39-41): .

RSC (42-44): ABS (45-47): . (48-50): (51-54):

Alpha (pc/l) (55-57): Beta (pc/l) (58-60): Ra (pc/l) (61-63): U (ug/l) (64-66): .

No. (80): S

Recorded by: D. AARONSON

Punched by: T Date: 10

Published:

Punched FCH

WRD Exp. (GW)
Aug. 1964

Verified PMJ

U. S. DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

Water Resources Division Well Schedule Form

MASTER CARD

COUNTY HWY

Record by D. AARONSON Source of data FILE Date 6/28/65 Map 1:63,360

State IOWA [T 6] County (or town) SAC [B 1]

Latitude: 42 15 01 N (deg min sec N S) Longitude: 094528 (12 degrees 15 min sec 18) Sequential number: 1

Lat-long accuracy: 2 T 86 N S, R 35 E W Sec 24, SE ¼, NW ¼, NW ¼ 5

Local well number: 086350W24bbbd Other number: B & M W-6210

Local use: 062100 52CITY Owner or name: AUBURN TOWN WELL

Owner or name: AUBURN IOWA Address: AUBURN, 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, (C) Comm, (D) Dewatering, (F) Fire, (H) Dom, (I) Irr, (N) Ind, (P) P S, (S) Stock, (T) Instit, (U) Unused — P

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

DATA AVAILABLE: Well data S Freq. W/L meas.: NONE N Field aquifer char.

Hyd. lab. data:

Qual. water data; type: COMPLETE C

Freq. sampling: INTERMITTENT I Pumpage inventory: yes / no, period:

Aperture cards: yes

Log data: GEOLOGIST LOG G

WELL-DESCRIPTION CARD

SAME AS ON MASTER CARD Depth well: 237 ft 2370 (Meas. rep) accuracy 6

Depth cased; (first perf.) ft Casing type: ; Diam. in

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

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

Date Drilled: 1952 9 5 2 Pump intake setting: ft

Driller: THORPE WELL CO., (name) DES MOINES, IOWA (address)

Lift (type): (A) air, (B) bucket, (C) cent, (J) jet, (L) multiple (cent.), (M) multiple (turb.), (N) nope, (P) piston, (R) rot, (S) submerg, (T) turb, (Z) other Deep / Shallow D

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

Descrip. MP LSD. 0 ft above / below lsd, Alt. MP 1229

Alt. LSD: 1229 1229 Accuracy: (source) ± ALTIMETER 7

Water Level ft above / below MP; Ft above / below lsd Accuracy:

Date meas: Yield: gpm Method determined

Drawdown: ft Accuracy: Pumping period hrs

QUALITY OF WATER DATA: Iron 1.4 ppm 5 Sulfate 460 ppm 7 Chloride 1 ppm 0 Hard. 740 ppm 8

Sp. Conduct 1480 K x 10^6 5 Temp. °F Date sampled 11/25/62 N 6 2

Taste, color, etc.

086-35W-24 66d

Well Number 42 15 01 (N/S) 034 52 28
d m s d m s

HYDROGEOLOGIC CARD

SAME AS ON MASTER CARD (1–19) Physiographic Province: CENTRAL LOWLAND [1 2] (20–21) Section: WESTERN

LAKE [B] (22) Drainage Basin: RACCOON [2 5 A] (23–25) Subbasin: [ ] (26)

Topo of well site: local depression, flat surface, hilltop, hillside, terrace, valley flat, (D) (F) (H) (S) (T) (V) [ ] (27)

MAJOR AQUIFER: CRETACEOUS system, LOWER series [K 1] (28–29) DAKOTA SANDSTONE aquifer, formation, group [D 1] (30–31)

Lithology: MEDIUM SANDSTONE [3 V] (32–33) Origin: MARINE [6] (34) Aquifer Thickness: ft

[ ] (35–37) Length of well open to: ft [ ] (38–40) Depth to top of: 215 ft [2 1 5] (41–43)

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:

Depth to consolidated rock: 215 ft [2 1 5] (60–63) Source of data: WELL CUTTINGS [C] (64)

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

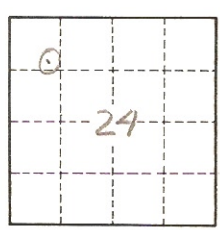
Surficial material: [ ] (70–71) Infiltration characteristics: [ ] (72)

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

Coefficient Perm: gpd/ft²; Spec cap: gpm/ft; Number of geologic cards: [ ] (79)

CASING!

NO INFORMATION



GPO 844-225