Dolliver Iowa
July 24, 1947

Gerald Stow - Town Clerk at Dolliver, Iowa

Water sample collected (Crate No 215) after well had pumped 2½ hrs.
Water temp 47½°F - Sample clear.
Test pump - Engine at Barnhardts

Concrete floor of Pump House is 1.5 above soil at Station

Elev. Sta 1287.5
+ 1.5 1289.0
Elev pump house floor ↓

Mason City Ia
Jan 5 1940

Mr Hershey - Dear Sir -
Will write you a letter of description of the City Well at Dolliver Iowa.

0 - 5 feet - Black dust to yellow clay
5 to 10 feet - yellow clay
10 to 15 feet - yellow clay turning to blue
15 to 20 - mostly blue clay
20 to 25 - blue clay
25 to 30 - blue clay
30 to 35 - blue clay
35 to 40 - blue clay
40 to 45 - blue clay
45 to 50 - blue clay
50 to 55 - blue clay
55 to 60 - blue clay
60 to 65 - blue clay
65 to 70 - blue clay

70 to 75 - blue clay
75 to 80 - blue clay
80 85 - blue clay
85 90 - blue clay
90 95 - blue clay
95 100 - blue clay
100 105 - blue clay
105 110 - blue clay
110-115 - blue clay.
115 to 120 - blue changing to yellowish
120 to 125 - gravelly yellow clay.
125 to 130 - sandy yellow clay
130 to 135 - sandy yellow clay.
135 to 140 - sandy yellow clay.
140 to 145 - changed to blue clay.
145 to 150 - yellow & blue clay mixed
155 to 160 - tough blue clay.
160 to 165 - tough blue clay.
165 to 170 - tough blue clay
170 to 175 - tough blue clay

175 to 179 feet - greenish yellow sand with water.
During the drilling of this well the water in the old well was in a gravel vein at 136 feet which we found when we cleaned the old well out and no gravel was hit in the new well at the 136 foot level. The new well is ten feet due south of the old well.
The new well was tested with a $3\frac{3}{4}$ inch cylinder with a setting of 140 feet of four inch pipe on top of cylinder. The test was run for seven hours running at a rate of 35 strokes a minute on a 26 inch stroke without

and lowering of the water level which stands at 115 feet below the ~~Pump~~ foundation bed of the pump base. The well is Cased with - 175 feet 5 inch of eight inch standard black steel pipe with a weight of thirty five pounds to the foot.

Pipe in new well.

175 feet 8 inch pipe weight 25 lbs to the foot This is steel pipe.

The flue clay from 90 to 120 feet was a sandy clay. The flue clay from 155 to 175 feet was a real tough clay.

I believe I have wrote all the news on this well so will send this and the bags of samples to you at Iowa City. Hoping you find this satisfactory to you

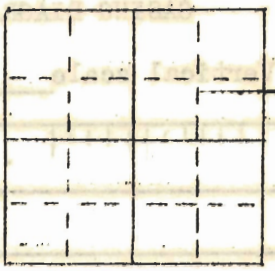
Fred Dalle
Driller for Bert Sharff
131-29th St. S.W.
Mason City
Iowa

IOWA GEOLOGICAL SURVEY W-1086

In Cooperation with U. S. Geological Survey

RECORD OF WELL

Location:



Town: Dolliver (N E / S W): County Emmet E.

NW¼ NE¼ SW¼ sec. 22 T 100 N., R. 32 W. Lincoln Twp.

Well name and number Town Well #2 (1939)

Owner _____ Address _____

Tenant _____ Address _____

Contractor Bert Sharff Address Mason City

Drillers Fred Dralle

Drilling dates 1939

Well data:

Elevations: Drilling curb 1289 feet; Land surface 1289 feet

Hand level from top rail at C&NW RR Sta at Dolliver El. 1287.5

Determined by W.E. Hale

Topographic position Upland.

Total depth: Reported 175+ feet, Measured _____ feet

Drilling method cable tool

Hole and casing data 175' of 8-inch casing

Original depth to water 115 ft. below ~~above~~ curb Date _____

Original elevation of water level _____ ft.; Source of data _____

Sources of water: Principal sdstn - Pleistocene 171-175'; Others _____

Production data: Date

Static depth to water 115 Measuring point

Pumping level 140- at 43.7 g.p.m. Little drawdown reported

Specific capacity g.p.m. per ft. drawdown; Temperature 47½ °F.

Pump data: Type pump Column Dia. Length

Cylinder or bowls: Dia. Length Suction pipe

Power Airline

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

Use of water Municipal supply

WATER ANALYSES (in parts per million)

| | | | | |
|---|---|---|---|---|
| Date samples | July 24, 1947 | | | |
| Sampled by | W.E. Hale | | | |
| Total solids | 1112. | | | |
| Insoluble matter | 25.5 | | | |
| Alkalinity (Meo) | 384. | | | |
| Alkalinity (Phn) | none | | | |
| pH | 7.6 | | | |
| $Fe_2O_3 + Mn_2O_3 + Al_2O_3$ | 11 | | | |
| Alkali as sodium | 119 | | | |
| Calcium | 170 | | | |
| Magnesium | 47.7 | | | |
| Iron (unfiltered) | 3.1 | | | |
| Manganese | .93 | | | |
| Nitrate | 6.6 | | | |
| Fluoride | none | | | |
| Chloride | 1 | | | |
| Sulfate | 473 | | | |
| Bicarbonate | 468 | | | |
| Hardness (ppm) | 628 | | | |
| Hardness (gpg) | 36.72 | | | |

Remarks

Laboratory data: Sample storage location

Sample range 0-175 No. spls. 35 No. dupls. & cond. 35 good

Spls. prepared by Summerland Washed range by

Driller's log and cond. Yes good

Insoluble residues: Prepared by Studied by Strip log

Microscopic study 7/15/47 W.E. Hale strip log WEH

Gen. log Correl. by

# WELL SCHEDULE

US GEOLOGICAL SURVEY

IOWA DISTRICT WRD

WELL NO. 100-32W-22CAB CO. EMMET

OWNER DOLLIVER TOWN WELL (1939) ADDRESS DOLLIVER, IA.

DRILLER BERT SHARFF (MASON CITY) DATE DRLD 1939

MAP 1:63,360 COUNTY HWY

SOURCE OF DATA FILE

DESCRIPTION M. P. LSD FEET (ABOVE/BELOW) LSD 1289

MASTER CARD-A 9-26-69

| STATE | COUNTY | LATITUDE DEG. | LATITUDE MIN. | LATITUDE SEC. | N or S | LONGITUDE DEG. | LONGITUDE MIN. | LONGITUDE SEC. | SEQ. NO. |
|---|---|---|---|---|---|---|---|---|---|
| 19 | 32 | 43 | 27 | 56 | N | 094 | 36 | 47 | 1 |

| CONTINUED FROM ABOVE | ACCURACY | LOCAL WELL NUMBER T. | R. | E/W | SEC. | QUARTERS | LOCAL USE W-NUMBER | OPTIONAL | OWNER OR NAME | OWNERSHIP | WATER USE | WELL USE | WELL DATA | FREQ. W/L | FIELD CHAR. | HYD. LAB. | QW-DATA | QW-FREQ. | PUMPAGE | APERTURE | LOG DATA | CARD DESIG. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2 | 100 | 32 | W | 22 | CAB | 01086 | // 39CITY | DOLLIVER IOWA | M | P | W | 1 | Ø | | | C | I | | | GD | A |

WELL-DESCRIPTION CARD - B

| DUPLICATE CARD A CC 1-19 | DEPTH OF WELL | ACCURACY | DEPTH CASED OR FIRST PERF. | DIAM. INCHES | WELL FINISH | METH. DRILLED | YEAR DRILLED | PUMP SETTING | METH. LIFT | DEEP/SHALLOW | POWER | ALTITUDE OF LSD (FEET) | ACCURACY | WATER LEVEL (FEET) | ACCURACY | DATE MONTH | DATE YEAR | YIELD OF WELL (GPM) | METH. DET. | DRAW-DOWN (FEET) | ACCURACY | PUMPING PERIOD (HOURS) | QUALITY OF WATER IRON | SULF. | CHLOR. | HARD | S.P. COND. | TEMP. | DATE SAMPLED | CARD DESIG. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 175 | 3 | 175 | 8 | Ø | C | 39 | | J | D | 5 | 1289 | 7 | 115 | D | 1 | 40 | 44 | | 25 | D | | 57 | Ø | 85 | | 48 | 369 | B |

HYDROGEOLOGIC CARD - C

| DUPLICATE CARD A CC 1-19 | PHYSIOGRAPHY PROV. | SEC. | DRAINAGE BASIN | SUBBASIN | TOPO SETTING | MAJOR AQUIFER SYSTEM | SERIES USGS | SERIES IGS | UNIT | LITHOLOGY | ORIG. | THICKNESS | LENGTH WELL OPEN TO | DEPTH TO TOP OF | MINOR AQUIFER SYSTEM | SERIES USGS | SERIES IGS | UNIT | LITHOLOGY | ORIG. | THICKNESS | LENGTH WELL OPEN TO | DEPTH TO TOP OF | DEPTH TO CONSOLIDATED ROCK | SOURCE | DEPTH TO BASEMENT | SOURCE | SURF. MAT. LITHOLOGY | INFIL. | COEF. TRAN. SIG. FIG. | X10 | COEF. STOR. SIG. FIG. | X10- | GEOL. CARDS | CARD DESIG. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 12 | B | 25 | B | | F | Q | G | G | X | 4 | S | 0 | 170 | | | | | | | | | | | | | | 8 | T | 4 | | | | | C |

CASING AND SCREEN (SIZE, TYPE, INTERVALS):

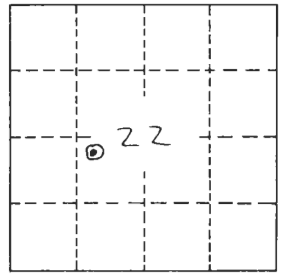
175FT. OF 8" CASING FROM 0-175FT.

CODED BY J. AARONSON DATE 27 JAN. 1970

PUNCHED BY T DATE

VERIFIED BY DATE

SKETCH ON REVERSE: YES NO ✓




WELL NO. 100-32W-22CAB

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey
Water Resources Division

Water Quality
(ppm)

Local Well No. 100-32W-22 CAB
Aquifer Code(s) Q GGX
Owner's Name DOLLIVER TOWN WELL (1939)
W Number 1086

Card Q

State: IOWA (1 2: 19) County: EMMET (3 4: 32) Town: DOLLIVER, IOWA

Well No. (5–11): Latitude 43 27 56 N; Longitude (12–18): 094 36 47; Seq. No. (19): 1; Date (20–25): M 07 D 24 Y 47

Sampling Depth (26–29): 175; Type (30): 1; Kx10$^6$ (31–35):; pH (36–38): 7.6; Temp. °F (39–41): 48

$SiO_2$ (42–44): ; Ca (45–49): 170; Mg (50–53): 48; Na +K (54–58): 119; K (59–61): C

$HCO_3$ (62–65): 468; $CO_3$ (66–67): 0; $SO_4$ (68–72): 473; Cl (73–78): 1; Source No. (79–80): 3 Q

Card R

Duplicate Columns 1-25 from Card Q

F (26–28): 0; $NO_3$ (29–32): 15; $PO_4$ (33–35): ; B (36–38): ; Al (39–41): ; Fe (42–45): 31

Mn (46–49): 93; Cu (50–52): ; Pb (53–54): ; Zn (55–57): 

Determined Solids (58–63): 1120; Calc. (64–69): ; Ca,Mg Hardness (70–73): 628; Non-Carb. (74–77): 244

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): 384; 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

Punched by: T Date: 

Published: 

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey
Water Resources Division

Local Well No. 100-32W-22CAB
Aquifer Code(s) QGGX
Owner's Name DOLLIVER TOWN WELL (1930)
W Number 1086

Water Quality
(ppm)

Card Q

State: IOWA [19] (1-2) County: EMMET [32] (3-4) Town: DOLLIVER, IOWA

Well No. Latitude [4327556N] (5-11) Longitude [094364 7] (12-18) Seq. No. [1] (19) Date M D Y [032569] (20-25)

Sampling Depth [175] (26-29) Type [1] (30) Kx10$^6$ [1500] (31-35) pH [6.9] (36-38) Temp. °F [48] (39-41)

$SiO_2$ [25.] (42-44) Ca [184.] (45-49) Mg [44.] (50-53) Na [110.] (54-58) K [8.0] (59-61)

$HCO_3$ [490] (62-65) $CO_3$ [0] (66-67) $SO_4$ [450.] (68-72) Cl [.5] (73-78) Source No. [3] (79) [Q] (80)

Card R

Duplicate Columns 1-25 from Card Q

F [.4] (26-28) $NO_3$ [.1] (29-32) $PO_4$ [.] (33-35) B [.] (36-38) Al [.] (39-41) Fe [30.] (42-45)

Mn [.89] (46-49) Cu [.] (50-52) Pb [.] (53-54) Zn [.] (55-57)

Determined Solids [1080] (58-63) Calc. [] (64-69) Ca,Mg Hardness [640] (70-73) Non-Carb. [238] (74-77)

Color [] (78-79) No. [R] (80)

Card S

Duplicate Columns 1-25 from Card Q

Br [.] (26-28) I [.] (29-31) Alk. as $CaCO_3$ [402] (32-35) 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. [S] (80)

Recorded by: D. AARONSON

Punched by: T Date:

Published: