WRD Exp. (GW)
April 1966

Well No. 077-14W-09 BB

WELL SCHEDULE

U. S. DEPT. OF THE INTERIOR — GEOLOGICAL SURVEY — WATER RESOURCES DIVISION

MASTER CARD

Record by D. A. BONSON | Source of data FILE | Date 7/26/66 | Map 1:62,500 PELLA QUAD

State IOWA [16] | County (or town) MAHASKA [62]

Latitude: 41 29 30 N | Longitude: 092 29 10 | Sequential number: 1

Lat-long accuracy: 3 | T. 77 S, R. 14 E Sec. 9, ___ ¼, NW ¼, NW ¼ S

Local well number: 077 14W 09 BB | Other number: B & M W-8974

Local use: 08974 57 CITY 1 | Owner or name: BARNES CITY TOWN WELL (1957)

Owner or name: BARNES CITY IA | Address: BARNES (CITY), IA.

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, (B) Bottling, (C) Comm, (D) Dewater, (E) Power, (F) Fire, (H) Dom, (I) Irr, (M) Med, (N) Ind, (P) P S, (R) Rec, (S) Stock, (T) Instit, (U) Unused, (V) Repressure, (W) Recharge, (X) Desal-P S, (Z) Desal-other, Other — [P]

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

DATA AVAILABLE: Well data [1] | Freq. W/L meas.: INVENTORY [0] | Field aquifer char. [ ]

Hyd. lab. data: [ ]

Qual. water data; type: COMPLETE [C]

Freq. sampling: INTERMITTENT (10/1/57) [I] | Pumpage inventory: yes / no, period: [ ]

Aperture cards: yes [ ]

Log data: GEOLOGIST-DRILLER'S [G D]

WELL-DESCRIPTION CARD

SAME AS ON MASTER CARD | Depth well: 230 ft [230] Meas. rept DRILLER'S LOG accuracy [3]

Depth cased; (first perf.) 193'9" ft [194] | Casing type: STEEL; Diam. 6 in [6]

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

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) wash, (Z) other — [C]

Date Drilled: SEPT. 1957 [957] | Pump intake setting: ___ ft

Driller: HOEG & AMES (name), LINCOLN, IA. (address)

Lift (type): (A) air, (B) bucket, (C) cent, (J) jet, (L) multiple (cent.), (M) multiple (turb.), (N) none, (P) piston, (R) rot, (S) submerg, (T) turb, (Z) other — [ ] Deep / Shallow [D]

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

Descrip. MP LSD ___ ft above/below LSD, Alt. MP 901

Alt. LSD: 901 [901] | Accuracy (source): ALTIMETER [7]

Water Level 115 ft above/below MP; Ft above/below LSD [115] | Accuracy: DRILLER'S LOG [D]

Date meas: OCT. 1957 [057] | Yield: 40 gpm [40] | Method determined [ ]

Drawdown: 48 ft [48] | Accuracy: [3] | Pumping period 3 hrs [3]

QUALITY OF WATER DATA: Iron 3.2 ppm [6] | Sulfate 916 ppm [8] | Chloride 2 ppm [0] | Hard. 995 ppm [8]

Sp. Conduct 1870 K x 10^6 [5] | Temp. 57 °F [57] | Date sampled DEC. 10, 1962 [D 6 2]

Taste, color, etc. VERY SLIGHTLY CLOUDY WITH PALE YELLOW COLOR ON RECEIPT IN LAB.

Punched ERC — Verified FCH

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Latitude-longitude 41 d 29 m 30 s N W S 092 d 29 m 10 s

HYDROGEOLOGIC CARD

SAME AS ON MASTER CARD [1] Physiographic Province: CENTRAL LOWLAND [20 21] 12 Section: DISSECTED

TILL PLAIN [22] E Drainage Basin: SKUNK [23 25] 25C Subbasin: [26]

Topo of well site: (D) depression, (C) stream channel, (E) dunes, (F) flat, (H) hilltop, (K) sink, (L) swamp, (Q) offshore, (P) pediment, (S) hillside, (T) terrace, (U) undulating, (V) valley flat — UPLAND [27] F

MAJOR AQUIFER: MISSISSIPPIAN (system), UPPER (series) [28 29] M3, SPERGEN FM (aquifer, formation, group) [30 31] MR

Lithology: CHERTY, SDY, DOLOMITE [32 33] QD Origin: MARINE [34] 6 Aquifer Thickness: 40 ft

[35 37] 40 Length of well open to: 31 ft [38 40] 31 Depth to top of: 185 ft [41 43] 185

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: NONE

Depth to consolidated rock: 180 ft [60 63] 180 Source of data: WELL CUTTINGS [64] C

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

Surficial material: NONCALC. LOESS [70 71] NQ Infiltration characteristics: POOR [72] 4

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

Coefficient Perm: gpd/ft^2; Spec cap: .83 gpm/ft; Number of geologic cards: [79]

CASING:

193' 9" OF 6" PIPE.

0 9

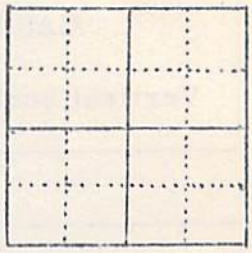
Well No. 077-14W-09 BB

GPO 857-700

077-14W-09

W 8974

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



Location: MAHASKA-POWESHIEK CO. LINE
(N E)
Town: BARNES CITY (S W) :County MAHASKA
E.
NWNW sec. 9 T. 77 N., R. 14 W. _____ Twp.

Well name and number _____

Owner TOWN OF BARNES CITY WELL #1 (1957) Address _____

Tenant _____ Address _____

Contractor HOEG & AMES Address LINCOLN, IOWA

Drillers _____

Drilling dates SEPT. 1957

Well data:
Altitudes: Drilling curb _____ feet; Land surface 901 feet

_____

Determined by _____

Topographic position _____

Total depth: Reported 230 feet, Measured _____ feet

_____

Drilling method CABLE TOOLS

Hole and casing data 193' 9" OF 6" PIPE

_____

_____

_____

_____

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

Source of data _____

Sources of water: Principal _____

Others _____

Production Data

Date				
Static water level	115			
Measuring point				
Pumping water level	163			
Yield (g. p. m.)	40			
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

Well No. W 8974 Sample range 0-230 No. of samples 45

No. of dupls. and cond. 45 good Washed range 185-230

Samples prepared by R. Sargent Date 10/8/57

Logged by Northup Date 12/16/57

Correlations by _____ Date 12/16/57

WJ11-1