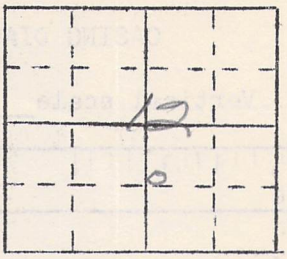
IOWA GEOLOGICAL SURVEY
In Cooperation with U. S. Geological Survey

W-4543

RECORD OF WELL



Location:

Town: Callender (N E) (S W): County Webster

SW NW SE sec. 12 T. 87 N., R. 30 E. W. Twp.

Well name and number Callender Town Well No. 3

Owner _____ Address _____

Tenant _____ Address _____

Contractor Harold M. Rasmussen Address _____

Drillers " " "

Drilling dates Aug. 2 - Sept. 9, 1949

Well data:

Elevations: Drilling curb _____ feet: Land surface 1152 feet

Determined by _____

Topographic position level ground

Total depth: Reported 185 feet, Measured _____ feet

Drilling method Cable

Hole and casing data 6¼" hole to 185'

Original depth to water 35 ft. ~~above~~ below _____ Date _____

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

Sources of water: Principal _____; Others _____

DESCRIPTION OF BEDS

KIND OF ROCK, COLOR, HARD OR SOFT, WATER, ETC.

Black top Soil.
Yellow Clay.
Blue Clay.
Sand.
Blue Clay.
Yellow Clay.
Blue Clay
Shale (Black.)
Sandstone.

Production data: Date

Static depth to water 35 Measuring point

Pumping level 148 at 12 g.p.m.

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

Pump data: Type pump Column Dia. Length

Cylinder or bowls: Dia. Length Suction pipe

Power Electric Airline

Estimated rate or productions: 12 g.p.m. for hrs. a day

Use of water

WATER ANALYSES (in parts per million)

Date samples				
Samples by				
Total solids				
Insoluble matter				
Alkalinity (Meo)				
Alkalinity (Phn)				
pH				
$Fe_2O_3 + Mn_2O_3 + Al_2O_3$				
Alkali as sodium				
Calcium				
Magnesium				
Iron (unfiltered)				
Manganese				
Nitrate				
Fluoride				
Chloride				
Sulfate				
Bicarbonate				
Hardness (ppm)				
Hardness (gpg)				

Remarks

Laboratory data: Sample storage location CH9-C

Sample range 0-170 No. spls. 31 No. dupls. & cond. 31-G

Spls. prepared by V-M AJ Washed range unmarked samples by V-M 11/2/50

Driller's log and cond.

Insoluble residues: Prepared by Studied by Strip log

Microscopic study strip log November 1950

Gen. log Correl. by Jenkins

WRD Exp. (GW)
Aug. 1964

Verified ERC

Punched FCH

087-30W-12 DBC

U. S. DEPARTMENT OF THE INTERIOR — GEOLOGICAL SURVEY

Water Resources Division Well Schedule Form

MASTER CARD

Record by: D. AARONSON | Source of data: FILE | Date: 12/7/65 | Map: 1:63,360 COUNTY HWY

State: IOWA (16) | County (or town): WEBSTER (94)

Latitude: 42 deg 21 min 21 sec N | Longitude: 094 deg 17 min 15 sec W | Sequential number: 1

Lat-long accuracy: 2 | T 87 N, R 30 W | Sec 12, SW ¼, NW ¼, SE ¼ 5

Local well number: 087 30 W 12 D B C | Other number: W-4543 B & M

Local use: 04543 49 CITY 3 | Owner or name: CALLENDER TOWN WELL 3

Owner or name: CALLENDER | Address: CALLENDER, 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, (C) Comm, (D) Dewatering, (F) Fire, (H) Dom, (I) Irr, (N) Ind, (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 1 | Freq. W/L meas.: INVENTORY Ø | Field aquifer char.

Hyd. lab. data:

Qual. water data; type: COMPLETE — C

Freq. sampling: ORIGINAL Ø | Pumpage inventory: yes / no, period:

Aperture cards: yes

Log data: GEOLOGIST LOG — G

WELL-DESCRIPTION CARD

SAME AS ON MASTER CARD | Depth well: 185 ft | 185 Meas. (Rep.) accuracy — 6

Depth cased; (first perf.): 171 ft | 171 | Casing type: STEEL ; Diam. 6¼ in — 6

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

Date Drilled: SEPT. 1949 | 949 | Pump intake setting: ft

Driller: HAROLD RASMUSSEN (name), CALLENDER, 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, gas, gasoline, hand, gas, wind; nat, LPG; H.P. | Trans. or meter no.

Descrip. MP: LSD | above / below lsd, Alt. MP 1152

Alt. LSD: 1152 | 1152 | Accuracy: (source) ALTIMETER — 7

Water Level: 35 ft above / below MP; Ft above / below lsd | 35 | Accuracy: DRILLER'S LOG — D

Date meas: SEPT. 1949 | 949 | Yield: 12 gpm | 12 | Method determined

Drawdown: 113 ft | 113 | Accuracy: | 3 | Pumping period hrs

QUALITY OF WATER DATA: Iron 0.6 ppm | 1 | Sulfate 336.8 ppm | 7 | Chloride 12 ppm | 1 | Hard. 555 ppm | 8

Sp. Conduct K x 10⁶ | Temp. °F | Date sampled NOV 1, 1949 | N49

Taste, color, etc.

Well Number 42 21 21 N 094 17 15 W (d m s d m s)

HYDROGEOLOGIC CARD

SAME AS ON MASTER CARD | Physiographic Province: CENTRAL LOWLAND | 12 | Section: WESTERN

LAKE | B | Drainage Basin: RACCOON | 25A | Subbasin:

Topo of well site: (D) local depression, (F) flat surface, (H) hilltop, (S) hillside, (T) terrace, (V) valley flat, LEVEL GROUND — F

MAJOR AQUIFER: PENNSYLVANIAN system, ? series | N | aquifer, formation, group — X

Lithology: SANDSTONE | V | Origin: MARINE | 6 | Aquifer Thickness: ft

Length of well open to: 14 ft | 14 | Depth to top of: 170 ft | 170

MINOR AQUIFER: system, series | aquifer, formation, group

Lithology: | Origin: | Aquifer Thickness: ft

Length of well open to: ft | Depth to top of: ft

Intervals Screened: NONE

Depth to consolidated rock: 140 ft | 140 | Source of data: WELL CUTTINGS — C

Depth to basement: ft | Source of data:

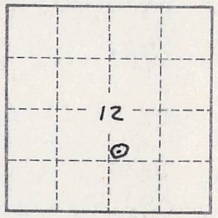
Surficial material: CLAYEY TILL | GT | Infiltration characteristics: POOR — 4

Coefficient Trans: gpd/ft | Coefficient Storage:

Coefficient Perm: gpd/ft²; Spec cap: .1 gpm/ft; Number of geologic cards:

CASING:

6¼" PIPE TO 171 FT.



GPO 844-225

WELL RECORD

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

Callender (Nearest Town) in Webster (County),

in the NE ¼ SE ¼ Sec. 12 T. 37 R. 30

Town of

Owner Callender Well No. 3

Postoffice address .....

Contractor Harold M Rasmussen

Address Callender

Driller Harold M Rasmussen

Well begun Aug 2, 19 49

completed ~~Aug~~ Sept 9, 19 49

Rig used—Cable, Rotary, Jet, or Cable

Depth of well 185 (Feet)

Size of hole (note total amount of each size)

6¼" - 185'

Main water supply at 170' - 185' (Feet below surface)

Final water head 35 (Feet above or below surface)

Is well pumped? Yes.

Yield 12 (Gallons per minute)

Water level when pumping 148'

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

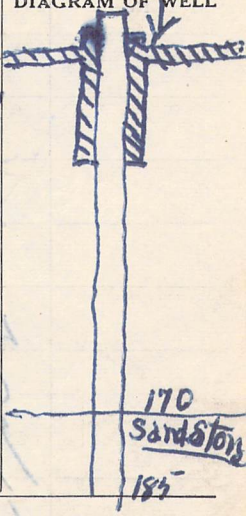
Date and Time	Water Level	SOURCE OF WATER		Production in Gallons per Minute	Pumping Level
		Depth	Type of Rock		
8/3/49	20'	50'	Sand	3	40'
8/11/49	35'	185'	Sandstone	12	148

NOTE: Water levels should be recorded at time of change AND at regular intervals; for example each morning before drilling starts or at the end of each 100 feet of drilling.

RECORD OF PERMANENT CASING Cement 25

Size Pipe	Amount of Pipe	Depth to Bottom of Pipe	Depth to Top of Pipe	Type* and Weight of Pipe
6 1/4"	172'	171		13 lb.

DIAGRAM OF WELL



*As cast, wrought iron, steel, concrete, etc.

Is screen used? NO Diameter..... (Inches)

Length..... (Feet) Depth to bottom.....

Depth to top..... Slot size.....

Are packers or seals used?.....

Kind .....

Where used.....

Kind of pump..... Dia..... (Inches)

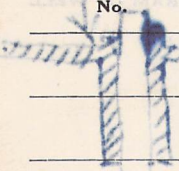
Capacity of pump..... 12 (g.p.m.)

Power used 3 phase 60 cycle 220 V. (Kind and amount)

Depth to bottom of pump line 167 feet,

including ..... feet tailpiece.

Remarks on construction of well The Best pacific Construction

Sample No.	DEPTH		THICKNESS
	From	To	
	0	3	3
	3	16	13
	16	48	32
	48	48½	6 in.
	48½	95	46½
	95	115	20
	115	140	25
	140	170	30
	170	185	15