

UNITED STATES DEPARTMENT OF THE INTERIOR

Geological Survey
Water Resources DivisionLocal Well No. 093-35W-21CDDAquifer Code(s) Q66XWater Quality
(ppm)Owner's Name MARATHON TOWN #2 (1939)W Number 01170

Card Q

State: Iowa 119 County: BUENA VISTA 111 Town: MARATHON, IOWA

Well No. 425102N 0945900 Seq. No. 1 Date 120258

Sampling Depth 1175 Type 1 Kx10⁶ 930 pH 7.4 Temp. °F 52

SiO₂ 30 Ca 142 Mg 40 Na 43 K 4.3

HCO₃ 481 CO₃ 0 SO₄ 224 Cl 5 Source No. 3 Q

Card R

Duplicate Columns 1-25 from Card Q

F 4 NO₃ 13 PO₄ 33 B 36 Al 39 Fe 34

Mn 42 Cu 50 Pb 53 Zn 55

Determined 698 Solids 52 Ca, Mg 519 Hardness 125

Color 78 No. R

Card S

Duplicate Columns 1-25 from Card Q

Br 26 I 29 Alk. as CaCO₃ 394 Free CO₂ 36 SAR 39

RSC 42 ABS 45 48 50

Alpha (pc/l) 55 Beta (pc/l) 58 Ra (pc/l) 61 U (ug/l) 64

No. S
80Recorded by: D. ARONSONPunched by: 77 Date: Published:

MEMORANDUM

Subject: Marathon Town Well, No. 2

Mr. Charles Wickliff reports:

T.D. 175'
S.W.L. 80'
9'5" Drawdown in two hours and 9'6" drawdown
in 3 hours pumping at 120 g.p.m.
Recovery in 20 minutes
12 - 13 feet of sand which stood open.

This well is a straight gravel pack with the screen
sheet and then gravel poured around it. The hole has a
diameter of 10".



H. G. Hershey

IOWA GEOLOGICAL SURVEY
Water Well Data Sheet

Survey Number **W-1170**

Town Marathon County Buena Vista T. 93 N., R. 35 W.

Name Town Well No. 2 Location SE 1/4 SE 1/4, Sec. 21

Contractor Thorpe Well Co Driller Chas Wickliff Use Town Supply
Drilling

Construction Drilled Drilling Dates _____ Depth _____

Topog. Upland Curb _____ Total _____
Elev. 1395 ± Ref. H.L. - H.S.J. - T.W.R. Depth 175

Final _____ above _____
Static _____ below Pumping _____ Draw _____ Time _____
Level _____ curb Level _____ down _____ gpm _____ pumped _____ Date _____
Depth to _____ Calc. g/ft. _____ Prin. _____
bot. pump _____ ft. with _____ ft. suction pipe. drawdown _____ Prod. _____
Producing _____
Horizons _____

Water levels and pumping tests on various horizons during drilling:

Depth Range	Stat. Level	Pump Level	Draw down	gpm.	Temp.	Producing horizons	Producing formations	Formations cased out
	<u>78</u> <u>80</u>	<u>89'5"</u>	<u>9'6"</u>	<u>120</u> <u>in 2 hrs</u>				
		<u>89'6"</u>	<u>9'5"</u>	<u>120</u> <u>in 2 hrs</u>				
			<u>4'9"</u>	<u>50</u> <u>in 4 hrs</u>				

Additional information 12'-13' of sand which sta. open.

Straight gravel-pack well, with screen set & gravel poured around it. The hole
10"
Mr. Wickliff reports: "Standard, black steel pipe, surface to 165' - 15'6" of Thorpe screen.
Grouted to 50'± after 12" removed from hole

Laboratory Data
Sample range 1 - 175 Number samples 17 Number Duplicates 17 Cond. Good
Yes _____
Log No, Cond. _____ Boxed Summerford Range 1-175 Date May 10, 1948

Remarks _____

Microscopic _____ Strip _____ Gen. _____ Blue _____ Samples _____
Study Range _____ Log _____ Log _____ Print _____ Washed _____
Insol. Res. _____ Strip _____ Gen. _____ Insol. Res. _____ Well _____
Study Range _____ Log _____ Log _____ Prepared _____ Corel. _____

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

W-1170

RECORD OF WELL

Location:

Town: Marathon (N E)
(S W); County Buena Vista
SE-SW sec. 21 T. 93 N., R. 35 W. Poland Twp.

Well name and number Town Well No. 2

Owner _____ Address _____

Tenant _____ Address _____

Contractor Thorpe Well Co. Address Des Moines

Drillers Chas. Watkins

Drilling dates _____

Well data:

Elevations: Drilling curb 1395 feet; Land surface _____ feet

Determined by Hand level HGH & TWF

Topographic position Upland

Total depth: Reported 175 feet, Measured _____ feet

Drilling method Drilled. Gravel packed.

Hole and casing data Standard 10" B/K Steel pipe - 0-165'

(Give amount, size, kind, and depth of all casing; type and position of seals and packers; cementing; how finished--perforated pipe, screen, gravel pack, open hole, etc.)
15' 6" of Thorpe screen. Grouted to 50'. After 12' removed from hole

Original depth to water 80' ^{above} ft. below _____ Date _____

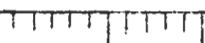
Original elevation of water level _____ ft.; Source of data _____

Sources of water: Principal _____; Others _____

CASING DIAGRAM

LOG

Vertical scale _____

Production data: Date _____
Static depth to water 80' Measuring point _____
Pumping level 89'5" at 120 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 _____ Airline _____
Estimated rate of production: _____ g.p.m. for _____ hrs. a day
Use of water _____

WATER ANALYSES (in parts per million)

Date sampled	_____	_____	_____	_____
Sampled by	_____	_____	_____	_____
Total solids	_____	_____	_____	_____
Insoluble matter	_____	_____	_____	_____
Alkalinity (Meq)	_____	_____	_____	_____
Alkalinity (Phn)	_____	_____	_____	_____
pH	_____	_____	_____	_____
Fe ₂ O ₃ + Mn ₂ O ₃ + Al ₂ O ₃	_____	_____	_____	_____
Alkali as sodium	_____	_____	_____	_____
Calcium	_____	_____	_____	_____
Magnesium	_____	_____	_____	_____
Iron (unfiltered)	_____	_____	_____	_____
Manganese	_____	_____	_____	_____
Nitrate	_____	_____	_____	_____
Fluoride	_____	_____	_____	_____
Chloride	_____	_____	_____	_____
Sulfate	_____	_____	_____	_____
Bicarbonate	_____	_____	_____	_____
Hardness (ppm)	_____	_____	_____	_____
Hardness (gpg)	_____	_____	_____	_____
Remarks	_____	_____	_____	_____

Laboratory data: Sample storage location _____
Sample range 1-175 No. spls. 17 No. dupls. & cond. _____
Spls. prepared by Summer for Washed range _____ by _____
Driller's log and cond. _____
Insoluble residues: Prepared by _____ Studied by _____ Strip log _____
Microscopic study Smith strip log 221-50
Gen. log _____ Correl. by _____