

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

W-2794

RECORD OF WELL

Location:

Town: Montour

(N E)
(S W)

County Tama

SW-NW-3E

sec. 21 T83

N., R. 16

W.

Twp.

	21	
	0	

Well name and number

Town of Montour (1947)

Owner

Address

Montour, Iowa

Tenant

Address

Contractor

Shilhanek Well Co.

Address

Tama, Iowa

Drillers

Leonard Shilhanek

Drilling dates

Finished March 10, 1947

Well data:

Elevations: Drilling curb

848

feet; Land surface

848

feet

5' below RR sta.

Determined by

Topographic position

Valley floor

Total depth: Reported

50

feet, Measured

feet

Drilling method

Cable tool

Hole and casing data

To be finished with 10 feet of 6" screen attached
to 40' of 6" pipe

Original depth to water

ft. below

Date

Original elevation of water level

ft.; Source of data

Sources of water: Principal

Glacial sd & gr 40-50; Others

Production data:

Date _____

Static depth to water _____

Measuring point _____

Pumping level _____

at _____

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 samples April 19-47Sampled by Br. Eng. Co.Total solids 6.31Insoluble matter 14.5Alkalinity (Meo) 216Alkalinity (Phn) NonepH 7.6Fe₂O₃ + Mn₂O₃ + Al₂O₃ 3Alkali as sodium 31Calcium 125.1Magnesium 35.3Iron (unfiltered) .1Manganese NoneNitrate 93.0Fluoride .3Chloride 38.1Sulfate 155.3Bicarbonate 264Hardness (ppm) 458Hardness (gpg) 26.8

Remarks _____

Laboratory data:

Sample storage location _____

Sample range D-50No. spls. 19No. dupls. & cond. 19 FairSpls. prepared by REGWashed range 49-50by RVD

Driller's log and cond. _____

Insoluble residues: Prepared by _____

Studied by _____

Strip log _____

Microscopic study D-50strip log April 14, 1947

Gen. log _____

Correl. by Dr. Parker

Memo: Visit test hole drilling for town of
Montour, Iowa

Date: 3-10-47 W. E. Hale

Name: Town of Montour Test Well No. 1

Loc: SW $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 21, T. 83 N. R. 16 W

Elev: 845 $\pm$ (well site is 5' below Sta)

Contr: Stillhaneck Well Co. - Tama, Iowa.

Log:

0-40	clay yellow, sandy	
40-43	sand and gr.	
43-47	sand	SWL - 14 feet
47-50	coarse sand & gr.	
50	Bouldery blue clay	

Stillhaneck believes well will produce 50 gpm. He

will send in samples to screen outfit to get screen designed.

Boudinot does not want to make any further tests. Neither does the town until screen is ordered and present test hole is pumped. I pointed out that screen was main cost, why not look for more and better gravel, but this was K.O'ed. Town also has only few more convenient sites.

There may be \$28,000 available for water works.

Water tower will cost \$10,000 to \$13,000

Main 6" line $\frac{1}{2}$ mile --- 10,000

4" lines --- 10,000

Well \$800 $\pm$

Samples were saved on test hole. 1' intervals through sand and gravel bed.

No large wells in town. Mostly sand points.

Montour
Lama Co.

April 30, 1947

Brown Engineering Co.
K. P. Bldg. Sixth Ave. at Locust
Des Moines 9, Iowa

Gentlemen:

Enclosed is a report on the mineral analysis of water from the 50-foot Town of Montour (1947) well as shown by a sample collected by your company on April 19, 1947.

If you have any questions concerning this report, please do not hesitate to let me hear from you.

Very truly yours,

H. G. Hershey

HGH:AEH

ENC:

*Montour
Iowa Co.*

April 29, 1947

Brown Engineering Company
Sixth Avenue at Locust
Des Moines 9, Iowa

Attention: Mr. John M. Fairall

Gentlemen:

Thank you for the information concerning the Montour, Iowa test well. A report of the analysis of the water sample collected at the time of the pumping test will be forwarded as soon as it is completed.

Your requests for information on the geology and ground-water conditions at Kellogg and the vicinity of Cedar Rapids are receiving attention. Reports on these two areas will be sent to you as soon as possible.

Very truly yours,

H. G. Hershey

HGH:WEH:AEH

Montour Test Well folder
Montour - Tama

BROWN ENGINEERING COMPANY
Consulting Engineers

REGISTERED
PROFESSIONAL ENGINEERS
K. R. BROWN
E. F. BEHRENS
L. B. ECKLES
E. S. BOUDINOT
C. P. PRICHETT
J. V. GEBUHR
M. T. McDONALD
J. S. VETERSNECK
L. E. KAPLAN
G. C. HAVENS
~~S. M. HELGELAND~~
W. E. NICHOLS

K. P. BUILDING-SIXTH AVENUE AT LOCUST, DES MOINES 9, PHONE 4-9109

April 24, 1947

APR 25 1947

Dr. H. G. Hershey
Iowa Geological Survey
Geology Annex
Iowa City, Iowa

Re: Montour, Iowa, Test Well

Dear Dr. Hershey:

We are advised that the water level recovered to eight feet from the top, fifteen minutes after the ten hour pumping test. After fourteen hours rest the water level was eight feet four inches from the top.

Yours very truly,

BROWN ENGINEERING COMPANY

John M. Fairall

John M. Fairall

JMF:jfm

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Consulting Engineers

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W. E. NICHOLS

K. P. BUILDING-SIXTH AVENUE AT LOCUST, DES MOINES 9, PHONE 4-9109

APR 21 1947

April 19, 1947

Dr. H. G. Hershey
Iowa Geological Survey
Geology Annex
Iowa City, Iowa

Subject: Test Well
Montour, Iowa

Dear Sir:

Pumping started at 7:30 am.

This well is approximately 50 feet deep with a 70 screen ten feet long and a 6 inch casing. Static water level is 8 feet. The pumping level after two hours and fourty minutes at 40 gallons per minute was 18 feet or a draw down of 10 feet. The driller at Montour set his suction pipe on the pump at a depth of 18 feet and then measured the flow from the pump. As long as it was sucking just a little air he assumed that the pumping level was at 18 feet. The suction pipe was then lowered to 20 feet and the pumping rate was increased to 50 gallons a minute and this was continued for a total pumping time of 10 hours. The pumping level remained at 12 feet. The writer did not stay until the tests were completed and when a report is received from the driller with regard to the recovery levels of the well this information will be forwarded to you.

The sample was taken near the end of the pumping period. The well discharged through a 20 foot length of 6" casing. The temperature after 5½ hours of pumping was 44°.

When the water analysis is complete we would appreciate receiving a copy of that and a log of the well.

Yours very truly,

BROWN ENGINEERING COMPANY

John M. Fairall

John M. Fairall

JMF:jfm

9-26-69
RP 11-22-70

STATE				COUNTY				LATITUDE				LONGITUDE				SEQ. NO.		
								DEG.	MIN	SEC	N or S	DEG.	MIN.	SEC.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	9	8	6	4	1	5	8	5	7	N	0	9	2	4	3	0	5	1

IOWA DISTRICT WRD

WELL NO. 2794 CO TAMA
OWNER TOWN OF MONTGOMERY ADDRESS MONTGOMERY
DRILLER SHILHANEK DATE DRLD 3-10-1947
MAP _____
SOURCE OF DATA FILE
DESCRIPTION M.P. LSD FEET (ABOVE)
BELOW LSD _____

CONTINUED FROM ABOVE	ACCURACY	LOCAL WELL NUMBER						LOCAL USE								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																						
		T	R	F _w	SEC.	QUARTERS	W-NUMBER	OPTIONAL																																																				
		20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43														44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65
	2	0	8	3	1	6	W	2	1	D	B	C				0	2	7	9	4	/	1	4	7	T	O	W	N				M	O	N	T	O	U	R									M	P	W	I	O			C	I		G	A		

[illegible][illegible]

40' ØF 6" PIPE
10' ØF 6" SCREEN

CODED BY HEXUM DATE 6-16-72

PUNCHED BY HEXUM DATE 6-72

VERIFIED BY _____ DATE _____

SKETCH ON REVERSE: YES_____ NO_____

21

WELL NO. 2794

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey
Water Resources Division

2794
083-16W-21DBC
TOWN OF MONTOUR

Water Quality
(ppm)

Card Q

State: IOWA 19 County: TAMA 86 Town: MONTOUR

Well No. 415857N 0924305 Seq. No. 1 Date 080552

Sampling Depth 50 Type 1 Kx10⁶ pH 7.8 Temp. °F

SiO₂ Ca 104 Mg 28 Na 15 K 16

HCO₃ 266 CO₃ 0 SO₄ 111 Cl 21 Source No. 39

Card R

Duplicate Columns 1-25 from Card Q

F 0.2 NO₃ 43 PO₄ B Al Fe 0.04

Mn 0.0 Cu Pb Zn

Determined 507 Solids Calc. Ca, Mg 375 Hardness Non-Carb. 157

Color No. R

Card S

Duplicate Columns 1-25 from Card Q

Br I Alk. as CaCO₃ 218 Free CO₂ SAR

RSC ABS

Alpha (pc/l) Beta (pc/l) Ra (pc/l) U (ug/l)

No. S
80

Recorded by: HEXUM

Punched by: MACGOWAN Date: 6/72
Published:

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey
Water Resources Division

2794
083-16W 21DBC
TOWN OF MONTGOMERY

Water Quality
(ppm)

Card Q

State: IOWA 19 County: TAMA 86 Town: MONTGOMERY

Well No. 415857N 0924305 Seq. No. 1 Date 041947

Sampling Depth 50 Type 1 Kx10⁶ 35 pH 7.6 Temp. °F 44

SiO₂ 1 Ca 1251 Mg 353 Na 31 K 1

HCO₃ 264 CO₃ 0 SO₄ 1553 Cl 381 Source No. 3Q

Card R

Duplicate Columns 1-25 from Card Q

F 03 NO₃ 21 PO₄ 33 B 36 Al 39 Fe 42

Mn 46 Cu 50 Pb 53 Zn 55

Determined 631 Solids 64 Ca, Mg 458 Hardness Non-Carb. 207

Color 78 No. R

Card S

Duplicate Columns 1-25 from Card Q

Br 26 I 29 Alk. as CaCO₃ 251 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. 5
80

Recorded by: HEXUM

Punched by: MALGOWAN Date: 6/72
Published: _____