#17779

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

Location: App. 30 From old well

Town: Fontanelle (NE)(SW) County Adair

SW SE Sec. 18, T. 75, N. ___, R. 32 (E)(W) ___ Twp.

Well name and number _____

Owner Fontanelle Town Well #2 Address Fontanelle, Iowa

Tenant (1965) Address _____

Contractor Thorpe Well Co. Address Des Moines, Iowa

Drillers _____

Drilling dates Jan. 13 - March 20, 1965

Well data:
Altitudes: Drilling curb ____ feet; Land surface ____ feet 1334' Est.

Determined by _____

Topographic position _____

Total depth: Reported 329 feet; Measured ____ feet ____

Drilling method Cable Tools

Hole and casing data 234' of 12" csg. 0-234'
321' of 8" csg. 2' to 319'
10' of 8" screen 319'-329'

Original depth to water ____ feet. above/below ____ Date ____

Source of data _____

Sources of water: Principal 321-328

Others

PRODUCTION DATA

Date

Static water level 120

Pumping water level 147'

Yield (g.p.m.) 50

Measuring point

Duration of pumping

Specific capacity

LABORATORY DATA PLG-219

Well No. #17779 Sample range 0-328 No.of samples 62

No. of dupls. and cond. 62 F Washed range —

Samples prepared by Odeh Date 8/19/65

Logged by Northup Date 9/7/65

Correlations by Date 9/7/65

D Rogan at office - 12:00 | W-17779

STATE HYGIENIC LABORATORY, DES MOINES BRANCH
WATER LABORATORY DIVISION
MINERAL ANALYSIS

LAB. NO. 2708
MINERAL NO. 5873
6 July 19 67

TOWN Fontanelle COUNTY Adair
OWNER OF SUPPLY Town of Fontanelle
COLLECTOR'S NAME Gene L Dillon
DATE COLLECTED 17 April 67 DATE RECEIVED 18 April 67
REPORT TO: NAME Town of Fontanele
ADDRESS Fontanelle, Iowa 50846

FIELD DATA

SOURCE: WELL NAME, NUMBER, POINT OF COLLECTION, DEPTH, CONSTRUCTION DATE, ETC., West Well #1 328' 1965

WELL PUMPED ____ HRS. AT 25 GPM. DATE OF PREVIOUS SAMPLE ____
WAS SAMPLE FREE OF TURBIDITY WHEN COLLECTED Yes
TEMPERATURE °C ____ ALKALINITY (ppm $CaCO_3$) P ____ T ____ pH ____
IS A POLYPHOSPHATE BEING USED? Yes-none in sample

LABORATORY ANALYSIS
(PARTS PER MILLION)

SPECIFIC CONDUCTANCE K AT 25°C 340 x 10^{-5} TURBIDITY ____
DISSOLVED SOLIDS 3170 SOLUBLE IRON (Fe) 0.20 (on receipt in lab)
TOTAL SOLIDS 3170 SILICA (SiO_2) 18 TOTAL IRON (Fe) 1.2
ALKALINITY (ppm $CaCO_3$) P None T 320 pH 7.3 DATE 18 April 67

POSITIVE IONS		NEGATIVE IONS	
K+	9.4	NO_3−	1.6
Na+	360	F−	0.3
Ca++	373	Cl−	19
Mg++	131	SO_4−−	1800
Mn++	0.34	HCO_3−	390
Al+++		CO_3−−	None

HARDNESS AS $CaCO_3$ 1470 ppm 85.8 gpg

Very cloudy and yellow brown in color on receipt in lab. Filtered for mineral analysis; all determinations except total solids and total iron made on filtered sample.

ANALYST Morlan, Schwabbauer, Pierson
lls

R. L. MORRIS
PRINCIPAL CHEMIST

Keyes

12:01

WA 17779

STATE HYGIENIC LABORATORY
The University of Iowa
Medical Laboratory Building
Iowa City, Iowa 52242
319-353-5990

Lab No. 329

Mineral No. 11730

COMPLETE MINERAL ANALYSIS

Reported SEP 9 1975

TOWN Fontanelle COUNTY Adair

OWNER OF SUPPLY Municipal

Sampled 23 July 1975

COLLECTOR'S NAME Jay Trevadia

Received 28 July 1975.

REPORT TO: Department of Environmental Quality
3920 Delaware
Des Moines, Iowa 50316

FIELD DATA

SOURCE Fontanelle

SAMPLING POINT Water treatment plant, finished water

WELL DATA

NAME OR NUMBER

CONSTRUCTION DATE

DEPTH

PUMPED HRS AT GPM

WAS SAMPLE FREE OF TURBIDITY WHEN COLLECTED Not stated

TEMPERATURE °C ALKALINITY (mg/1 $CaCO_3$) P T pH

IS A POLYPHOSPHATE BEING USED? Yes DATE OF PREVIOUS SAMPLES

LABORATORY ANALYSIS (Milligrams per Liter)

Specific Conductance at 25°F 3400 Micromhos Silica (SiO_2) 17

Total Residue 3210 Soluble Iron (Fe) 3.6

Filtrable Residue 3210 Total Iron (Fe) 3.6

Alkalinity as $CaCO_3$ P None T 284 pH 7.3 pHs 6.62

Hardness as $CaCO_3$ 1490 mg/1 87.0 gpg Stability Index 5.9

CATIONS		ANIONS		TRACE METALS		RADIOACTIVITY (picocuries/L)	
(K+)	10	($NO_3^=$)	0.5	As	<0.01	Gross Alpha	2.3
(Na+)	350	(F^-)	0.20	Ba	0.1	226 Radium	–
(Ca++)	350	(Cl^-)	30	Cd	<0.01	Gross Beta	16
(Mg++)	140	($SO_4^=$)	1900	Cr	<0.01	90 Strontium	<0.40
(Mn++)	0.19	(HCO_3^-)	346	Cu	0.01	Other	
		($CO_3^=$)	None	Pb	<0.01		
		(CN^-)		Hg	<1µg/L	Organics	
		($PO_4^=$)		Se		CCE_m	
				Ag	<0.01	CAE_m	
				Zn	0.34	MBAS	

PESTICIDES (mg/L)

Chlorinated Hydrocarbons

Organophosphate & Carbamates

Herbicides

R L Morris Principal Chemist

W J Hausler Jr, PhD, Director

Sample pale brown on receipt in lab.

W-17779
75 32W 18

THORPE WELL COMPANY

2340 SIXTH AVENUE
DES MOINES, IOWA

Drilled for City Waterworks *at* Pontanelle, Iowa

Well is located Approx. 30' from old well *miles N-E-S-W and* *miles N-E-S-W from*

in the ¼ ¼ *Section* *Township* *Range*

Drilling started 1-13 *19* 65 *Completed* 3-20 *19* 65

Well No. 2 *Kind of Well* Gravel Pack *Depth* 329' *Size hole started* 27" *in*

Finish 12" *G. P. M.* 50 *Static Head* 120' *Pumping level from surface* 142'

Water was first encountered at 321 *in* *Approx. Amt.* *Temp.* 55 8

Remarks NO 2 northern gravel used from park 5-ton

(GIVE DETAILS OF PERFORATED PIPE AND SEALS)

RECORD OF PERMANENT PIPE					TEMPORARY PIPE	
SIZE PIPE	AMOUNT OF PIPE	DEPTH TO BOTTOM OF PIPE	DEPTH TO TOP OF PIPE	MAKE OF PIPE	SIZE PIPE	AMOUNT
Tem 36"	20'	20'	0'	steel cut		
Tem. 32"	59'	58'	1'	steel casing		
Tem 16"	319'	319'	0'	" "		
8"	321'	319'	2'	" "		
22"	234'	234'	0	1/4 wall welded		
8"	10'	329'	319'	Johnson Stainless steel screen No.75slot		

Driller George Lemar *From Surface to* *feet*

Driller Elvin Greene *From* *feet to* *feet*

Driller Max Smith *From* *feet to* *feet*

AMOUNT IN FEET	KIND OF SOIL OR FORMATION (BE SPECIFIC)	TOTAL DEPTH FEET
4	top soil	4
6	yellow clay	10
57	yellow and gray clay	67
3	med sand and gravel	70
9	yellow and gray clay	79
12	blue clay	91
9	yellow clay	100
3	gray clay	103
17	yellow clay	102
15	blue clay	135
15	gray and yellow clay	150
9	gray clay	159
44	gray and yellow clay	203
4	med. sand and gravel and clay	207
114	gray clay and boulders	321
8	med to coarse sand and gravel	329