

7 1/2' Elevation Quad
422959N - 0940056 - 01

089 - 27W - 27 ABAD

#16634

1980/ field located by D. Keuster

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

Location: 1 1/2 mi. N.
1 mi. W.

Town: DUNCOMBE (NE) County WEBSTER (SW)

Just S. of N14C Sec. 27, T. 89, N., R. 27 (E) (W) Twp.

Well name and number

Owner COOP. CHEMICAL FARM ASSN. Address

Tenant Address

Contractor THORPE WELL CO. Address DES MOINES, IOWA

Drillers

Drilling dates 1964

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

Determined by

Topographic position

Total depth: Reported feet; Measured 2025 feet

Drilling method CABLE TOOLS

Hole and casing data 625' OF 18" CSG.

Original depth to water above ft. below Date

Source of data

Sources of water: Principal _____

Others _____

PRODUCTION DATA

Date _____

Static water level _____

Pumping water level _____

Yield (g.p.m.) _____

Measuring point _____

Duration of pumping _____

Specific capacity _____

LABORATORY DATA

1 6634

PLS-887, 888, 889, 890, 891

Well No. _____ Sample range 0-2025 No. of samples 402

No. of dupls. and cond. 402 FAIR Washed range 290-2025

Samples prepared by LOUETI, SCHEETZ, ROBES Date 10/12/64

Logged by NORTHUP-PARKIN Date 1964

Correlations by _____ Date 1964

THORPE WELL COMPANY

2340 SIXTH AVENUE
DES MOINES, IOWA

THIS RECORD IS MICROFILMED 2-65

Drilled for Coop Farm Chemicals #1 at Duncombe, Iowa
Well is located 2 miles N-E-S-W and 1 miles N-E-S-W from Duncombe
in the 1/4 Section 1/4 Township 1 Range 1
Drilling started April 26 1954 Completed October 8 1954
Well No. 1 Kind of Well Water Depth 2025 Size hole started 30 in
Finish 10" G. P. M. 1900 Static Head 162' Pumping level from surface 280
Water was first encountered at 1586 in Lime Approx. Amt. 58 1/2°
Remarks 1900 GPM-280 Ft. pumping level-1600 GPM-249 Ft. pump level

(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
24"	226'	224'	0-cemented 40' top		36"	6'
18"	626' 10"	624' 4"	0-cemented top to bottom		30"	30'
16"	321	1257'	936		26"	50'
14"	118' 9"	1518'	1300' 3"			
10"	986	1586	600' Enter shoe 592' at top cemented from top to bottom			

Driller Grover Bruinekool From Surface to 1560 feet
Driller Richard Nichols From 0 feet to 2025 feet
Driller Art Lamberts From 431 feet to 2025 feet

AMOUNT IN FEET	KIND OF SOIL OR FORMATION (BE SPECIFIC)	TOTAL DEPTH FEET
2	Top soil	2
3	Clay-yellow	5
29	Clay-sandy-gravel	34
8	Clay-boulders	42
4	Sand&gravel	46
3	Clay-dard & gravel	49
14	Clay-gravel & boulders	63
82	Clay-dark-gravel-sandy	145
16	Shale-dark	161
4	sand	165
14	Lime shells	179
10	Lime	189
31	Lime shells	220
24	Lime-hard	244
56	Lime	300
33	Lime-hard	333
105	Lime	438
130	Lime-hard	568
12	Shale-line streaks	580
6	Lime	586
14	Lime snells	600
5	Shale-green	605
20	Lime-hard	625
59	Lime-hard	684
96	Lime-thin streaks of shale	780
27	Lime-sandy	807
14	Lime snells	821
22	Lime	843
12	Lime-streaks of sandy shale	855
22	Lime-brown	877

(OVER)

Amount in Ft.	Kind of Soil or Formation	Total Depth Feet
26	Lime-gray & brown	903
38	Lime shells	941
23	Shale-blue	964
156	Lime	1120
10	Shale	1130
40	Lime-sandy-sharp	1170
58	Lime shells	1228
137	Dol-brown	1365
15	Dol-Brown & gray	1380
80	Dol-streaks of gray shale	1460
8	Dol-Brown	1468
13	Shale-green	1481
5	shale-brown	1486
8	Lime-hard	1494
12	Shale-green	1506
31	Sand-St. Peter	1557
3	Lime	1560
65	Dol-brown	1625
5	Dol-sandy	1630
2	Dol-hard	1632
3	Dol-sandy	1635
20	Dol & chert-sharp	1655
13	Dol-hard	1668
19	Dol-brown	1687
8	Sand	1695
20	Dol-sandy	1715
10	No sample	1725
13	Sand	1738
58	Dol-brown & green	1796
12	Dol-brown	1808
8	No sample	1816
20	Dol-hard-fine	1836
69	Dol-brown	1905
35	Sand-soft-Jordan	1940
85	Sand & Dolomite-Hard with soft streaks	2025

December 14, 1972

Thorpe Well Company
~~2340 6th Avenue~~
~~Des Moines, Iowa~~ 50313
Arkens Iowa
Dear Sirs:

Would you kindly send me the construction record and pumping test data on the two deep wells your company drilled for the Consumers Cooperative Farm Association near Duncombe, Iowa in 1964 and 1965? We have complete sample logs of these wells but nothing on the casings, yields and water levels.

I am doing some research on the Jordan aquifer and would like this vital information on the C.C.F.A. wells. Anything you can send me on this will be most appreciated.

On further check I find we never received the construction and production data on the Fort Dodge municipal well No.17 (1969) and would like that for our files also.

Very truly yours,

Paul J. Horick
Chief of Groundwater Geology

PJH:rm



THORPE WELL COMPANY

157 / Ankeny 50021 / 964-1111
P.O. BOX 1976 / DES MOINES, IOWA 50305 / 248-6105 / AREA CODE 515

January 2, 1973

We dig for our business

IOWA
GEOLOGICAL SURVEY

JAN 5 1973

Iowa Geological Survey
16 West Jefferson Street
Iowa City, Iowa 52240

ATTN: Mr. Paul J. Hornick

Dear Paul,

Enclosed you will find a copy of the #1 well for C. C. A. at
Duncombe, Iowa.

Due to the fact that some of our records were misplaced when
we moved our office to Ankeny, I have not been able to come
up with the log for the #2 well as yet.

I hope this information will be of some help to you.

Sincerely,

THORPE WELL COMPANY

Guy Lemar
Guy Lemar
Sales Manager

GL:db

This was sent also

PMH

1/8/73

August 17, 1964

Mr. J. W. Thorpe, President
 Thorpe Well Company
 P. O. Box 1376
 Des Moines 13, Iowa

Dear Mr. Thorpe:

We are replying to your letter of August 10 concerning a geological forecast in the Consumers Farm Chemical Association well near Duncombe, Iowa below your current drilling depth of 1,215 feet as far as the basement complex.

Under separate cover we are sending you a copy of our log of the Celotex Corporation well located in the S 1/2 NE 1/4 sec. 34, T. 89N., R. 28W., about 5-1/2 miles west of the Consumers Farm Chemical Association well. A nearly identical sequence of strata is expected to occur in both wells. At 1,215 feet your present drilling has reached the lower part of the Maquoketa Formation. The key to the stratigraphic section below the Jordan Sandstone in this area is the log of the Fort Dodge city well No. 15, 2,307 feet deep, which your company drilled in 1948-49. Based on this well and the Celotex Corporation well, our estimate of the underlying units below 1,215 feet in the Farm Chemical Association well is outlined as follows:

Formation	Thickness (ft.)	Depth Range (ft.)
Ordovician System		
Maquoketa Formation (dolomite and chert)	20	1215-1235
Galena Formation (dolomite, some chert in lower half)	140	1235-1375
Decorah-Platteville Formations (dolomite, limestone, and shale in variable percentages)	125	1375-1500
St. Peter Sandstone	50	1500-1550
Prairie du Chien Formation (dolomite, sandy, and sandstone)	300	1550-1850

August 17, 1964

Formation	Thickness (ft.)	Depth Range (ft.)
Cambrian System		
Madison-Jordan Sandstone	60	1850-1910
St. Lawrence Formation (dolomite, silty, glauconitic)	180	1910-2090
Franconia Formation (dolomite and shale, glauconitic)	150	2090-2240
Dresbach Formation (dolomite, silty and shale in upper part, mostly sandstone in lower part)	170	2240-2410
Precambrian (?) System		
Red shale, may represent metamorphosed basalt	140+	2410-2550+
Metamorphic and/or igneous rocks (gneiss, granite, etc.) of basement complex		2550+

Some allowance should be made for error on all these depth estimates owing to local variations in the structure and thickness of the beds. The top of the basement rocks in particular may be considerably lower than shown here.

We trust this is the information you wished. If any questions remain or if we can be of additional help in this matter please let us know.

Very truly yours,

H. G. Hershey

HGH/pjh
m



THORPE WELL COMPANY

BOX 1376 / DES MOINES 13, IOWA / 243-6105 / AREA CODE 515

We dig for our business

August 10, 1964

IOWA GEOLOGICAL SURVEY

AUG 11 1964

Dr. H. G. Hershey
State Geological Survey
Iowa City, Iowa

Re: Consumers Farm Chemicals Ass'n
Well Near Duncombe, Iowa

Dear Sir:

Our location for subject well is approximately two miles west of Duncombe, Iowa and one mile north. We would like a geological forecast from the surface to the basement. Of course, the top 1200' will be merely a matter of record, since the hole is already that deep.


Our original forecast was put together from geological publications by ourselves and seems to be fairly accurate but we are especially interested in your predictions from 1200' on. We are not certain of the elevation in that area but it appears a little different from Duncombe when I was there.

I understand from Mr. Northup, that the log of the Celotex Corporation well is within five miles of this location towards Fort Dodge. Since we did not drill this well, we have no records on it and I would appreciate a log or strip log of the Celotex well. I believe it was drilled by Höeg & Ames in 1954.

Thanking you in advance for your assistance in this matter, we remain

Very truly yours,

THORPE WELL COMPANY


J. W. Thorpe
President

JWT/map

October 9, 1964

Mr. Orian Atcheson
Thorpe Well Company
P. O. Box 1376
Des Moines 13, Iowa

Dear Mr. Atcheson:

The samples from 1775 to 2025 feet for the C.C.F.A. well at Duncombe, Iowa have been received. The top of the Jordan sandstone occurs at a depth of 1905 feet. The transition zone between the Jordan and the underlying St. Lawrence dolomite occurs between 1960 and 1990 feet.

Upon completion of this well we will appreciate receiving the casing record and the hydrologic data.

Very truly yours,

H. G. Hershey

HGH/mcp/m

MEMORANDUM

August 12, 1964

TO: Dr. H. G. Hershey

FROM: Richard C. Northup

RE: Chem Cooperative Farm Ass'n. Well at Duncombe

Samples from 1080' - 1220' on the new Coop Farm Assn. Well at Duncome came in this morning. A quick check indicates that they are in the Elgin Member of the Galena, which is a very cherty dolomite with little likelihood of any more troublesome shale until the Decorah-Platteville is reached. I phoned Wes Thorpe and told him that they would probably be safe in setting their 16" liner now. Wes hopes that the Decorah-Platteville will hold up with enough so that a 14" liner won't be necessary before they set their main string of casing through the St. Peter, but they will be prepared to set the additional liner if necessary. My log should be up to date by tomorrow or no later than Friday.

CCA well Ft. Dodge

—Messenger Photos

10/17/64
It's a Gusher!

Cold clear water gushes from a newly drilled 2,050-foot deep well at the site of the proposed Consumers Cooperative Association (CCA) liquid fertilizer plant six miles east of Fort Dodge, just off Highway 20.

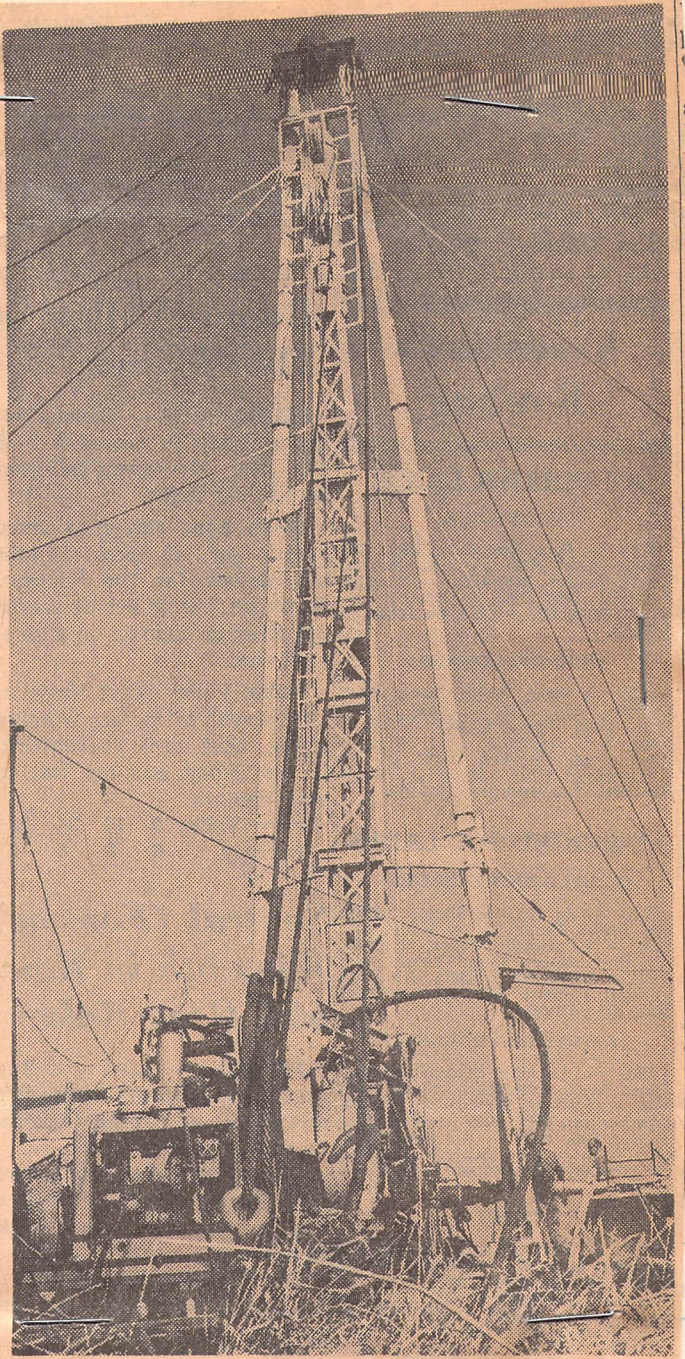
Fort Dodge city and Chamber of Commerce officials joined CCA officials and representatives of the Thorpe Well Company of Des Moines in observing the uncapping of the well Thursday. The initial flow was at the rate of 2,000 to 2,500 gallons per minute.

In the picture above Don L. Russell, executive vice president of the chamber, feels the cool water under the watchful eye of A. D. Fornelli, Lawrence, Kan., (extreme left), project engineer. Others at the uncapping were, from left: Mayor Albert Habhab; Merle A. Blue, Kansas City, Co., manager of the \$12 million liquid fertilizer plant to be built at the site; Tom Thorpe, head of the company that drilled the well, and G. W. Graalman, president of the Fort Dodge Chamber of Commerce.

At right is the cable-tool drill rig used in drilling. Thorpe said it is the largest machine of its type in operation in Iowa. It can drill to a depth of 3,500 feet.

Drilling on the well began last April and has been under way continuously since that time. Work on a second well will begin soon, Thorpe said.

... truck driven by John Curran,



July 9, 1964

Mr. Orian Atchison
Thorpe Well Company
Box 1376
Des Moines 13, Iowa

Dear Mr. Atchison:

In verification of our phone call yesterday, regarding the Farm Chemical Coop well we wish to advise that drilling has reached the Devonian (Lime Creek) Formation and that you are through the shale section in the Maple Mill - Aplington - Sheffield sequence. Therefore it should be reasonably safe to set the string of 18 inch casing anytime. There may be a few shale beds in the Lime Creek - Cedar Valley section as suggested in the logs of the Duncombe and Webster City municipal wells, but they should probably not cause much trouble. No major shale section should now be encountered until the Maquoketa Formation is reached. The upper part of the Maquoketa will be dominantly shale, while the lower (Elgin) member should be a cherty dolomite in this part of Iowa.

Please feel free to call again if you have any further questions.

Very truly yours,

H. G. Hershey

HGH/rcn/m

GW

MEMORANDUM

July 10, 1964

To: Dr. H. G. Hershey
From: Richard C. Northup
Re: Coop Chemical Farm Association well near Duncombe, Iowa

Samples have been received to 625 feet on the new Farm Coop well being drilled by Thorpe near Duncombe, Iowa (27-89N., 27W). Drilling has reached the Devonian, and Mr. Atchison at Thorpe Well Company asked me to check the last samples to see that they were through the Maple Mill - Aplington - Sheffield section, preparatory to their setting 18" casing. I did so and gave him a verbal check by phone, followed by a covering letter to verify it. They will then drill ahead and set their next casing after they get through the shaly part of the Maquoketa either in the Elgin, which will probably be the cherty dolomite facies here, or at the top of the Galena.

RCN/m

