

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

W-2603

RECORD OF WELL

Location:

Town: Clinton (N E)
(S W): County Clinton

NW SW SE sec. 22 T 81 N., R. 6 W. Camanche Twp.

Well name and number E. I. du Pont de Nemours "cellophane" plant Well No. 5

Owner E. I. du Pont de Nemours & Co. Address Wilmington, Del.

Tenant _____ Address _____

Contractor C. W. Varner Well Co. Address Dubuque, Iowa

Drillers Rude & Reedy

Drilling dates Started Aug. 6, 1946

Well data:

Elevations: Drilling curb 588.03 feet; Land surface 581 feet

Determined by E. I. du Pont de Nemours & Co.

Topographic position Floodplain of Mississippi River

Total depth: Reported _____ feet, Measured _____ feet

Drilling method Cable tool

Hole and casing data _____

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

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

Sources of water: Principal _____; Others _____

Production data:

Date March 27-47

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	<u>March 27-47</u>	_____	_____	_____
Sampled by	<u>DA. Morris</u>	_____	_____	_____
Dissolved Total solids	<u>43.6</u>	_____	_____	_____
Insoluble matter	<u>1.0</u>	_____	_____	_____
Alkalinity (Meo)	<u>245</u>	_____	_____	_____
Alkalinity (Phn)	<u>4</u>	_____	_____	_____
pH	<u>7.47 8.2</u>	_____	_____	_____
Fe ₂ O ₃ + Mn ₂ O ₃ + Al ₂ O ₃	<u>4</u>	_____	_____	_____
Alkali as sodium	<u>64.2</u>	_____	_____	_____
Calcium	<u>65.8</u>	_____	_____	_____
Magnesium	<u>23.8</u>	_____	_____	_____
Dissolved Iron (unfiltered)	<u>.05</u>	_____	_____	_____
Manganese	<u>None</u>	_____	_____	_____
Nitrate	<u>✓</u>	_____	_____	_____
Fluoride	<u>.6</u>	_____	_____	_____
Chloride	<u>50.8</u>	_____	_____	_____
Sulfate	<u>67.5</u>	_____	_____	_____
Bicarbonate	<u>289</u>	_____	_____	_____
Hardness (ppm)	<u>257</u>	_____	_____	_____
Hardness (gpg)	<u>13</u>	_____	_____	_____
Remarks	_____	_____	_____	_____

Laboratory data:

Sample storage location CAI-62,312A 10-1,2Sample range 900-1605No. spls. +292No. dupls. & cond. +287Good to FairSpls. prepared by R.J.H. GREGG, C.T.Washed range 7-250, 280-900 by900-1605J.R. REG, RVD, RTHDriller's log and cond. PT, RVD, REG

Insoluble residues: Prepared by _____

Studied by _____

Strip log _____

Microscopic study _____

strip log _____

Gen. log _____

Correl. by de retrub

Varner Well Drilling Company

Telephone 3691

INCORPORATED

P. O. Box 237

Turbine Pumps

Turbine Pump Service

905 American Trust Bldg.

DUBUQUE, IOWA,

Re: DuPont Well #5

Clinton, Iowa

DATE STARTED 7-30-46

DATE COMPLETED 4-17-47

DEPTH 1665'

DIAMETERS: 24" hole from surface to 26'; 212' of 23" hole from 26' to 238'; 548' of 19" hole from 238' to 786'; 879' of 15 1/4" hole from 786' to 1665'.

CASING: 26' of 24" O.D. drive pipe from surface to 26'; 238' of 20" O.D. 3/8" wall steel pipe from surface to 238' cement grouted in 23" hole & 24" drive pipe from bottom to top; 117' 2" of 16" O.D. 3/8" wall liner with bottom set at 786' 8" top at 669' 6".

STRATA RECORD:

From	To	Thickness	Description of Beds
Top	7	7	Top soil
7	135	122	Brown oxidized lime
135	157	22	Light brown lime, white flint
157	164	7	Gray lime, gray shale
164	190	26	Gray shale
190	195	5	Blue lime
195	234	39	Gray, blue shale
234	246	12	Blue dolomite
246	252	6	Gray shale & dolomite
252	325	73	Gray shale
325	380	55	Hard gray shale & slate
380	627	247	Gray & brown lime
627	722	95	Gray & brown lime & shale
722	761	39	Blue, green shale, & sand
761	767	6	Gray muddy sand
767	773	6	Fine white sand
773	779	6	White sand, green shale
779	786	7	Shale, lime
786	927	141	Hard gray lime
927	950	23	Hard gray sand
950	1208	258	Gray lime & dolomite
1208	1213	5	Hard dolomite
1213	1220	7	Gray dolomite & sand
1220	1230	10	Gray pink dolomite
1230	1282	52	Gray brown lime, dolomite
1282	1337	55	Pink gray lime, dolomite
1337	1359	22	Gray lime
1359	1374	15	Gray lime & dolomite

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DUBUQUE, IOWA,

DuPont Well #5 Cont'd:

From	To	Thickness	Description of Beds
1374	1386	12	Gray lime
1386	1390	4	Shale & sand, gray
1390	1407	17	Blue sandy shale
1407	1424	17	Gray shale
1424	1471	47	Blue sandy shale
1471	1480	9	Red marl
1480	1485	5	Red marl, dolomite
1485	1527	42	Pink sand & dolomite
1527	1552	25	Gray sand & dolomite
1552	1615	63	Gray sand
1615	1657	42	Blue shale & lime
1657	1665	8	Red marl

STATIC WATER LEVELS:

Top	to	456	None
456	to	535	250
535	to	627	88
627	to	722	68
722	to	779	59
779	to	950	55
950	to	1220	59
1220	to	1249	64
1249	to	1475	61' 6"
1475	to	1519	61
1519	to	1542	62
1542	to	1552	61
1552	to	1620	62
1620	to	1630	69 $\frac{1}{2}$
1630	to	1665	69

Note: On Feb. 24, 1947, the well was shot at 1565' with 140 quarts of nitro-glycerine.
About 45 yards of sand removed.













