

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

W 7264

RECORD OF WELL

Location: 2nd & Barnes Sts.

Town: Ida Grove (NE)
(SW) : County Ida

SE SE SE sec. 14 T. 87 N., R. 40 W. Twp.

Well name and number Ida Grove City Well

Owner Ida Grove Address _____

Tenant _____ Address _____

Contractor Rasmussen Well Co. Address Ida Grove

Drillers C.C. Rasmussen

Drilling dates June 10 - July 15, 1955; Deepened Aug. 1956

Well data:

Altitudes: Drilling curb _____ feet; Land surface 1225 feet

Determined by altimeter (Toland Robinson)

Topographic position Valley

Total depth: Reported 318 feet, Measured _____ feet
356 Aug. '56

Drilling method Cable Tools

Hole and casing data 12" hole. 266'-9" of 15# 12" pipe set
at 264'-6"; 43' of 10" set at 305'
Steel pipe with threads & couplings.

Original depth to water 95 ^{above} ft. below _____ Date _____

Source of data _____

Sources of water: Principal 265-315

Others _____

Production Data

Date	_____	_____	_____
Static water level	<u>95</u>	_____	_____
Measuring point	_____	_____	_____
Pumping water level	<u>285</u>	_____	_____
Yield (g. p. m.)	<u>150</u>	_____	_____
Duration of pumping	_____	_____	_____
Specific capacity	_____	_____	_____

Pump Data

Type pump	_____	Column diameter and length	_____
Cylinder or bowls diameter and length	_____		
Suction pipe	_____	Airline	_____
Power	_____	Production	_____ g. p. m. for _____ hours per day
Use of water	_____		

Dissolved constituents and properties (in parts per million except as indicated)

Date sampled	_____	_____	_____
Sampled by	_____	_____	_____
Silica (SiO ₂)	_____	_____	_____
Iron (Fe)	_____	_____	_____
Manganese (Mn)	_____	_____	_____
Calcium (Ca)	_____	_____	_____
Magnesium (Mg)	_____	_____	_____
Potassium (K)	_____	_____	_____
Sodium (Na)	_____	_____	_____
Carbonate (CO ₃)	_____	_____	_____
Bicarbonate (HCO ₃)	_____	_____	_____
Sulfate (SO ₄)	_____	_____	_____
Chloride (Cl)	_____	_____	_____
Fluoride (F)	_____	_____	_____
Nitrate (NO ₃)	_____	_____	_____
Dissolved solids	_____	_____	_____
Hardness (as CaCO ₃)	_____	_____	_____
Total	_____	_____	_____
Grains per gallon	_____	_____	_____
Noncarbonate	_____	_____	_____
Alkalinity (as CaCO ₃)	_____	_____	_____
pH	_____	_____	_____
Specific conductance	_____	_____	_____
(micromhos at 25°C)	_____	_____	_____
Temperature (°F)	_____	_____	_____
Analysis No.	_____	_____	_____

Laboratory Data

Well No. <u>W 7264</u>	Sample range <u>0-356</u>	No. of samples <u>69</u>
No. of dupls. and cond. <u>69 Good</u>	Washed range <u>162-356</u>	
Samples prepared by <u>Campbell Stone</u>	Date <u>8/11/55</u>	<u>9/12/56</u>
Logged by <u>NORTHUP</u>	Date <u>10/10/55</u>	
Correlations by <u>NORTHUP</u>	Date <u>10/10/55</u>	

August , 1955

Mr. E. S. Boudinot
Brown Engineering Company
322-334 KP Building
Des Moines 9, Iowa

Dear Mr. Boudinot:

Following is the information you requested on the Ida Grove well:

Total depth - - - - -	515 ft.
12" steel casing to sandstone - - - - -	265 ft.
12" drill hole to 0 - - - - -	305 ft.
10" perforated pipe - - - - -	263 ft. to 305 ft.
10" drill hole - - - - -	305 ft. to 315 ft.
Sandstone - - - - -	265 ft. to 315 ft.

Static water level - - - - -	95 ft.
------------------------------	--------

Pumping rate	Drawdown
75 GPM - - - - -	95 ft.
150 GPM - - - - -	190 ft.
132 GPM - - - - -	170 ft.

Water level raised 20 ft. when pumping rate was reduced from 150 GPM to 132 GPM and remained constant for the last hour of the test. - 3 1/2 hrs

Recovery period:

170 ft. drawdown level to 70 ft. drawdown level - - -	6 1/2 min.
70 ft. drawdown level to 10 ft. drawdown level - - -	1 1/2 hr.
10 ft. drawdown level to static level - - - - -	8 hr.

We have a gallon of water taken from this well while making the pumping test which we are sending in the mail today to the Iowa Geological Survey for analysis.

We checked with the city clerk for water consumption for the city of Ida Grove and he had recently calculated approximately 115,000 gal. per day would be a good figure for average consumption. He stated that 120,000 gal. per day would be a more than safe estimate for average daily consumption.

A sample of the water was taken to the Iowa Public Service Company light plant for a hardness test. The soap test for hardness indicated the water to be very satisfactory being only 12 to 14 grains hardness and the temperature of the water being a very desirable 53 degrees.

We would have been happier with the results of this well had the gallon per minute volumn been grater, but considering there is a never ending supply and the water itself is very desirable both for temperature and hardness we are sure this well will be a very satisfactory and permanent supply for the town of Ida Grove.

Yours very truly,

RASMUSSEN WELL CO.

C. C. Rasmussen

CCR:j
cc to Dr. Hershey

STATE	COUNTY	LATITUDE			N or S	LONGITUDE			SEQ. NO.									
		DEG.	MIN.	SEC.		DEG.	MIN.	SEC.										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
19	47	42	20	28	N	09	52	73	52									

WELL SCHEDULE

US GEOLOGICAL SURVEY

IOWA DISTRICT WRD

WELL NO. 087-40W-14DDD CO. IDA
 OWNER IDA GROVE CITY (1955) ADDRESS IDA GROVE, IOWA
 DRILLER RASMUSSEN WELL CO. DATE DRD JULY 1955
 MAP 1:63,360 COUNTY HWY.
 SOURCE OF DATA FILE
 DESCRIPTION M. P. USD FEET (ABOVE) 122.5 (BELOW) FT.

CONTINUED FROM ABOVE	LOCAL WELL NUMBER							LOCAL USE				OWNER OR NAME										OWNERSHIP	WELL USE	WELL DATA	FREQ. W/L	FIELD CHAR.	HYD. LAB.	QW-DATA	QW-FREQ.	PUMPAGE	APERTURE	LOG DATA	CARD DESIG.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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WELL-DESCRIPTION CARD - B

DUPLICATE CARD A	CC 1-19	DEPTH OF WELL		DEPTH OF FIRST PERF.	DIA.	WELL FINISH	YEAR DRILLED	PUMP SETTING	METH. LIFT	DEEP SHALLOW	POWER	ALTITUDE OF LSD (FEET)	ACCURACY	WATER LEVEL (FEET)	DATE	YIELD OF WELL (GPM)	METH. DET.	DRAW-DOWN (FEET)	ACCURACY	PUMPING PERIOD (HOURS)	QUALITY OF WATER						CARD DESIG.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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HYDROGEOLOGIC CARD - C

DUPLICATE CARD A	CC 1-19	PHYS-IOG-RAPY PROV.	DRAINAGE BASIN	SUBBASIN	TOPO SETTING	MAJOR AQUIFER				MINOR AQUIFER				DEPTH TO CONSOLI-DATED ROCK	SOURCE	DEPTH TO BASEMENT	SOURCE	SURF. MAT.	LITH- OLOGY	INFIL.	S.G.	COEF. TRAN.	COEF. STOR.	CARD DESIG.
						SERIES	UNIT	THICK- NESS	LENGTH WELL OPEN TO	DEPTH TO TOP OF	SERIES	UNIT	THICK- NESS	LENGTH WELL OPEN TO	DEPTH TO TOP OF									
		12B36C	VK1D13V6	65	61260																			C

CASING AND SCREEN (SIZE, TYPE, INTERVALS):

266FT 9" IN. OF 12" CS6 FROM +2'3" TO 264FT 6"

43FT. OF 10" PERF. PIPE 262'-305'.

OPEN HOLE TO 315FT.

WELL DEEPEMED IN AUG. 1956 TO 358FT.

SEE SEQ. # 1.

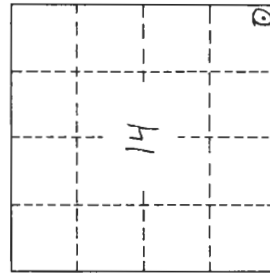
CODED BY D. ARZOUSSON DATE 12 JUNE 1970

PUNCHED BY T DATE

VERIFIED BY DATE

SKETCH ON REVERSE: YES NO 1

WELL NO. 087-40W-14DDD



MASTER CARD - A

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	4	7	4	2	2	0	2	8	N	0	9	5	2	7	3	5	1

WELL SCHEDULE

US GEOLOGICAL SURVEY

IOWA DISTRICT WRD

WELL NO. 087-40w-14DDD CO. IDA

OWNER IDA GROVE CITY WELL (1956) ADDRESS IDA GROVE, IOWA

DRILLER RAMMSEN WELL CO. DATE DRD AUG. 1956

MAP 1:62,360 COUNTY HWY.

SOURCE OF DATA FILE (ABOVE) LSD FEET 1225

DESCRIPTION M.P. LSD

CONTINUED FROM ABOVE	LOCAL WELL NUMBER												LOCAL USE												OWNER OR NAME	OWNERSHIP	WATER USE	WELL DATA	FREQ. W/L	FIELD CHAR	QW- DATA	QW-FREQ.	PUMPAGE	APERTURE	LOG DATA	CARO DESIG.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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WELL-DESCRIPTION CARD - B

DUPLICATE CARD A CC 1-19	DEPTH OF WELL	DEPTH OF CASED OR FIRST PERE	DIA.	WELL FINISH	METH. DRILLED	YEAR	PUMP SETTING	METH. LIFT	DEEP SHALLOW	POWER	ALTITUDE OF LSD (FEET)	WATER LEVEL (FEET)	ACCURACY	DATE	YIELD OF WELL (GPM)	METH. DET.	DRAW-DOWN (FEET)	PUMPING PERIOD (HOURS)	IRON	SULF	CHLOR	HARD	COND	TEMP.	DATE SAMPLED	CARD DESIG.
3583	264	12	X	C	9	5	6				12257															

HYDROGEOLOGIC CARD - C

DUPLICATE CARD A CC 1-19	PHYS-LOG- RAPHY PROV. SEC	DRAINAGE BASIN	SUBBASIN	1000 FEET SETTING	MAJOR AQUIFER					MINOR AQUIFER					DEPTH TO CONSOLI- DATED ROCK	DEPTH TO BASEMENT	SOURCE	SURF MAT. LITH- OLOGY	COEF TRAN SIS	COEF STOR X10	CARD DESIG									
					SERIES U66S	UNIT	LITH- OLOGY	ORIG.	THICK- NESS	LENGTH WELL OPEN TO	DEPTH TO TOP OF	SERIES U66S	UNIT	LITH- OLOGY								ORIG.	THICK- NESS	LENGTH WELL OPEN TO	DEPTH TO TOP OF					
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	66 67	68 69	70 71	72 73	74 75	76 77	78 79	80 81	
12B36C	VM	X	QD6					33	32	5K	1D	1	3V6	65	61	260	158C													

CASING AND SCREEN (SIZE, TYPE, INTERVALS):

266 FT 9 IN. OF CSG FROM +2'3" TO

264' 6"

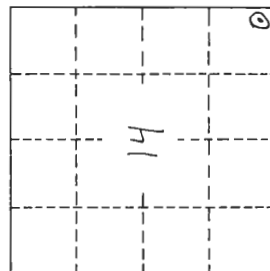
43 FT OF 10" PERF PIPE 262'-305'

OPEN HOLE TO 315 FT.

WELL ORIGINALLY DRILLED TO 315 FT IN 1955.
SEE SEQ. #2.CODED BY D. ARANSON DATE 12 JUNE 1970

PUNCHED BY _____ DATE _____

VERIFIED BY _____ DATE _____

SKETCH ON REVERSE: YES ☒ NO ☐WELL NO. 087-40w-14DDD

UNITED STATES DEPARTMENT OF THE INTERIOR

Geological Survey
Water Resources DivisionLocal Well No. 087-40W-14DDDAquifer Code(s) MX KID1Water Quality
(ppm)Owner's Name IDA GROVE CITY (1956)W Number 07264

Card Q

State: IOWA 19 County: IDA 47 Town: IDA GROVE, IOWA

Well No. 422028N 0952735 Seq. No. 1 Date 110556

Sampling Depth 358 Type 1 Kx10⁶ 680 pH 7.7 Temp. °F

SiO₂ 23 Ca 86 Mg 23 Na 31 K 4.3

HCO₃ 320 CO₃ 0 SO₄ 103 Cl 4.0 Source No. 3Q

Card R

Duplicate Columns 1-25 from Card Q

F 6 NO₃ 4 PO₄ B Al Fe 05

Mn 53 Cu Pb Zn

Solids Hardness

Determined 448 Calc. Ca, Mg 309 Non-Carb. 47

Color No. R

Card S

Duplicate Columns 1-25 from Card Q

Br I Alk. as CaCO₃ 262 Free CO₂ SAR

RSC ABS

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

No. S
80Recorded by: D. AARONSONPunched by: T Date: Published:

UNITED STATES DEPARTMENT OF THE INTERIOR

Geological Survey
Water Resources DivisionLocal Well No. 087-40W-14DDD
Aquifer Code(s) MX K1D1
Owner's Name IDA GROVE CITY (1956)
W Number 07264Water Quality
(ppm)

Card Q

State: Iowa 1 9 County: IDA 4 7 Town: IDA GROVE, IOWA

Well No. 4 2 2 0 2 8 N 5 11 12 18 Seq. No. 1 19 Date 0 8 3 0 6 0 20 25

Sampling Depth 3 5 8 Type 1 30 Kx10⁶ 6 8 4 pH 7 7 Temp. °F 39 41

SiO₂ 3 0 42 44 Ca 8 4 45 49 Mg 3 0 50 53 Na 3 1 54 58 K 4 5 59 61

HCO₃ 3 4 2 62 65 CO₃ 0 66 67 SO₄ 9 3 68 72 Cl 1 73 78 Source No. 3 Q 79 80

Card R

Duplicate Columns 1-25 from Card Q

F 6 26 28 NO₃ 3 4 29 32 PO₄ 33 35 B 36 38 Al 39 41 Fe 7 1 42 45

Mn 4 9 46 49 Cu 50 52 Pb 53 54 Zn 55 57

Determined 3 6 5 58 63 Solids 64 69 Ca, Mg 3 3 2 70 73 Hardness Non-Carb. 5 2 74 77

Color 78 79 No. R 80

Card S

Duplicate Columns 1-25 from Card Q

Br 26 28 I 29 31 Alk. as CaCO₃ 2 8 0 32 35 Free CO₂ 36 38 SAR 39 41

RSC 42 44 ABS 45 47 48 50

Alpha (pc/l) 55 57 Beta (pc/l) 58 60 Ra (pc/l) 61 63 U (ug/l) 64 66

No. S
80Recorded by: D. AARONSONPunched by: T Date: _____

Published: _____

UNITED STATES DEPARTMENT OF THE INTERIOR

Geological Survey
Water Resources DivisionLocal Well No. 087-40W-14DDDAquifer Code(s) MX KID1Owner's Name IDA GROVE CITY (1956)W Number 07264Water Quality
(ppm)

Card Q

State: IOWA 19 County: IDA 47 Town: IDA GROVE, IOWA

Well No. 422028N 0952735 Seq. No. 1 Date 032265

Sampling Depth 358 Type 1 Kx10⁶ 788 pH 7.9 Temp. °F

SiO₂ 22 Ca 101 Mg 21 Na 41 K 53

HCO₃ 342 CO₃ 0 SO₄ 153 Cl 5 Source No. 3 Q

Card R

Duplicate Columns 1-25 from Card Q

F 8 NO₃ 2 PO₄ B Al Fe 86

Mn 42 Cu Pb Zn

Solids 512 Hardness Non-Carb. 60

Determined 512 Calc. Ca, Mg 340

Color No. R

Card S

Duplicate Columns 1-25 from Card Q

Br I Alk. as CaCO₃ 280 Free CO₂ SAR

RSC ABS

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

No. S
80Recorded by: D. AARONSONPunched by: T Date: Published: