

WELL PRODUCTION TEST DATA SHEET

Job Amana Society Date Tested February 26, 1968
 Location at South Amana. Tested by Wm. F. Hogan for Hoeg & Ames
 Diameter of Well 7" Pump Used Turbine
 Depth of Well 785 ft. Driver Gasoline
 Length of Airline 300 ft. Col. & Shaft 3½" - 365' setting.
 Static W. L. 160 ft. Bowls _____
 Orifice Size _____ Mfr. _____

TIME	ORIFICE READING	GPM	PUMPING LEVEL	STATIC W.L.	DRAW- DOWN	REMARKS
10:30 A.M.		75	180'	160'	20'	Water clear
10:45		75	182'		22'	Water clear
11:00		90	186'		26'	Speeded up motor
11:30		90	188'		28'	
12:00 Noon		90	188'		28'	
12:30 P.M.		100	192'		32'	Speeded up motor
1:00		100	196'		36'	
1:30		100	200'		40'	
2:00		100	201'		41'	
2:30		100	201'		41'	
3:00		100	202'		42'	
3:30		100	202'		42'	
3:31						Speeded up motor
3:35		150	216'		56'	
3:45		165	221'		61'	
4:00		165	230'		70'	
4:30		165	321'		71'	
4:31						Shut off pump.



Phone 515 473-2707

HOEG & AMES, Inc.

WELL CONTRACTORS

WELL SUPPLIES

LINCOLN, IOWA

50652



RECORD OF WELL

Owner The Amana Society
Address c/o Mr. Fred Berger
Amana, Iowa. 52203
Tenant _____
Address _____
Location East of the Bakery at South Amana. In Section
12 of Hilton Township, Iowa County, Iowa.
Started the Well December 18, 1967
Finished the Well February 20, 1968
Total Depth 785 ft. Size of Well 7"
Static Water Level 160 ft.
Draw-down 42 feet, pumping 100 Gal. P.M.
420 feet of 7" O.D. inch pipe installed
108' 3" feet of 5 1/2" O.D. inch casing installed
Driller Wm. F. Hogan, for Hoeg & Ames, Inc.
Remarks 7" O.D. pipe set at 420 ft. 5 1/2" O.D. pipe
set at 510 ft.

FORMATION

0'	to	25'	-	Yellow clay.
25'	to	50'	-	Blue clay.
50'	to	85'	-	Yellow clay.
85'	to	250'	-	Blue clay.
250'	to	318'	-	Yellow clay (very sandy).
318'	to	474'	-	Shale with rock bands.
474'	to	785'	-	Rock.

Total Depth - 785 feet.

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

LAB NO. 3662
MINERAL NO. 6537
3 May 19 68

TOWN Amana COUNTY Iowa
OWNER OF SUPPLY The Amana Society
COLLECTOR'S NAME Wm F Hogan, for Hoeg & Ames, Inc
DATE COLLECTED 26 Feb 68 DATE RECEIVED 29 Feb 68
REPORT TO: NAME Iowa Geological Survey
ADDRESS Geology Annex
Iowa City, Iowa

FIELD DATA

SOURCE WELL NAME, NUMBER, POINT OF COLLECTION, DEPTH, CONSTRUCTION DATE, ETC.,
South Amana #1 Test Pump 785 ft 18 Dec 67 to 20 Feb 68
Section 12 Township 80N Range 10W, Iowa County 420ft of 7" casing 0-420 ft
108 ft of 5 1/2" casing Set at 510 ft
WELL PUMPED 6 HRS. AT 75 to 165 GPM. DATE OF PREVIOUS SAMPLE None
WAS SAMPLE FREE OF TURBIDITY WHEN COLLECTED Yes
TEMPERATURE °C ALKALINITY (ppm CaCO_3) P T. pH
IS A POLYPHOSPHATE BEING USED? No

LABORATORY ANALYSIS
(PARTS PER MILLION)

SPECIFIC CONDUCTANCE K AT 25°C 273 $\times 10^{-5}$ TURBIDITY
DISSOLVED SOLIDS 2600 SOLUBLE IRON (Fe) 1.1
TOTAL SOLIDS 2600 SILICA (SiO_2) 9.2 TOTAL IRON (Fe) 1.1
ALKALINITY (ppm CaCO_3) P. None T 208 pH 7.1 DATE 29 Feb 68
POSITIVE IONS NEGATIVE IONS
K+ 14 NO₃- < 0.1
Na+ 160 F- 0.55
Ca++ 392 Cl- 12
Mg++ 165 SO₄-- 1500
Mn++ 0.09 HCO₃- 254
Al+++ CO₃-- None

Unacceptable ionic balance was obtained on this sample, but the results are being reported for whatever value may be derived from them. Additional study of this sample indicates that the hardness probably is in error, by being high, possibly because the water was extremely unstable when collected.

HARDNESS AS CaCO_3 1660 ppm 96.9 gpg
A hardness of 1450 mg/l is more likely correct for this sample in that this figure is calculated from a zero per cent error in the ionic balance. Ca and/or Mg is accordingly in error.

ANALYST Ryan, Peterson

R. L. MORRIS
DWE PRINCIPAL CHEMIST
3 May 68 bj