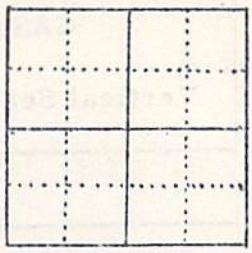
W-7899

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



Location:

Town: IOWA CITY (N E) (S W) :County JOHNSON

SW SW NE sec. 28 T. 80 N., R. 6 W. ~~E.~~ Twp.

Well name and number

Owner SWANER-DUNCAN Address

Tenant Address

Contractor D.E.EDWARDS Address WEST BRANCH

Drillers

Drilling dates AUG.8 - 1956

Well data:

Altitudes: Drilling curb feet; Land surface 774 feet

Determined by

Topographic position

Total depth: Reported 300 feet, Measured feet

Drilling method

Hole and casing data

Original depth to water ft. above below Date

Source of data

Sources of water: Principal

Others

Production Data

Date				
Static water level				
Measuring point				
Pumping water level				
Yield (g. p. m.)				
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 EK 6-4

Well No. W-7899 Sample range 76-300 No. of samples 62

No. of dupls. and cond. 62 Good Washed range 76-300

Samples prepared by Wilkins, Thompson Stone Dark Date 8/13/56 — 8/21/56

Logged by NORTHUP Date AUG. 1956

Correlations by _____ Date _____

TABLE I

PUMPING TEST AT RIVER VIEW
Heights Well No. 2 - Johnson County
July 31, 1961

Location: N E - S W — N E — Sec. 28 T 80 N - R 6 W
Total Depth: 315 feet
Contractor: D. E. Edwards
Date Drilled: July 19 to July 26, 1961
Casing Data: 7" O. D. casing welded joints 0-30' reducer welded in 6" I. D. casing welded joints 30-242' 73/8 hole 0-242' 5 7/8 open hole 242'-315'

Water Level: 142' reported in (south) well No. 2
135' pumping water level in (north) observation well with 46 pounds pressure in tank

Test Pump: Turbine powered by direct drive from gas engine. Bottom of pump 220' with 14' of suction pipe.

Aquifer: Silurian

Measurments: Water level measurements by airline and electric line. Discharge was measured by circular orifice.

Observers: Russ Campbell and L. L. Steele

TABLE 2

9-230

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

File No. { Washington ____ District ____

RIVER HEIGHTS PUMPING TEST WELL #2 (SOUTH DISCHARGE) 7-31-61

TIME	MIN	AIR LINE	W/V	D/D	P. TUBE INCHES	GPM							
			142	0				STATIC REPORTED					
9:22	0							PUMP STARTED					
9:23	1	61	157	15									
9:24	2	57	161	19	30	217							
9:25	3	55	163	21									
9:26	4	57	161	19									
9:27	5	57	161	19									
9:28	6	58	160	18	24	195							
9:29	7	58	160	18									
9:30	8	58	160	18	23	190							
9:31	9	58	160	18	23								
9:32	10	58	160	18	24	195							
9:35	13	57	161	19	24								
9:40	18	57	161	19	24								
9:45	23	57	161	19	24								
9:50	28	57	161	19	24								
10:00	38	56	162	20	24			TEMP. - 53½° F					
10:15	53	56	162	20	24								
10:30	68	56	162	20	24								
11:00	98	56	162	20	24								
11:30	128	55	163	21	24								
12:00	158	55	163	21	24								
12:28	186							PUMP STOPPED					
12:29	187							PUMP STARTED					
12:30	188	55	163	21	24								
1:00	218	55	163	21	24								
1:27	245							PUMP STOPPED					
1:28	246							PUMP STARTED					
1:30	248	56	162	20	24								
1:49	267							PUMP STOPPED					
1:50	268	60	158	16									

AIR LINE SET AT 218 FT.

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9-280

TABLE 2

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

File No. { Washington ____ District ____

RIVER HEIGHTS PUMPING TEST WELL #2 (SOUTH DISCHARGE) 7-31-61

TIME	MIN	AIR LINE	W/L	D/D	P. TUBE INCHES	GPM						
1:51	269	61	157	15								
1:52	270	63	155	13								
1:53	271							PUMP STARTED				
1:54	272	55	163	21	29	214						
1:55	273	55	163	21	24	195						
2:00	278	56	162	20	24							
2:16	294							PUMP STOPPED				
2:17	295	63	155	13								
2:18	296	66	152	10								
2:19	297	57	161	19	24							
2:30	308	56	162	20	24							
2:35	313	56	162	20				INCREASED GPM RATE				
2:36	314	42	176	34	61	325						
2:37	315	41	177	35	60	308						
2:40	318	40	178	36	60							
2:45	323	40	178	36	59	305						
2:50	328	39	179	37	59							
3:00	338	39	179	37	58	302						
3:15	353	39	179	37	58							
3:30	368	38	180	38	58							
3:45	383	38	180	38	58							
4:00	398	37	181	39	58							
4:02	400	RECOVERY						PUMP OFF				
4:03	1	50	168	13								
4:04	2	64	154	27								
4:05	3	65	153	28								
4:06	4	65	153	28								
4:07	5	65	153	28								
4:10	8	66	152	29								
4:12	10	66	152	29								
4:15	13	66	152	29								
4:20	18	66	152	29								
4:30	28	67	151	30								
4:45	43	67	151	30								

U. S. GOVERNMENT PRINTING OFFICE 16—48791-1

9-330

TABLE 2

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

File No. { Washington ____ District ____

RIVER HEIGHTS PUMPING TEST WELL #2 (OBS. WELL) NORTH 7-31-61

TIME	MIN	HELD	DIFF	W/L	D/D	PRESSURE TANK	SEC. TO FILL ½ GAL. *					
9:00		135	0	135.00	0	46		PUMPING WATER LEVEL				
9:15		135	+0.10	135.10	0.10	40	7½					
9:22								PUMP STARTED ON WELL #2				
9:30	8	140	-0.90	139.10	4.10	38						
10:02	40	140	0.0	140.00	5.00	42	10					
10:16	54	140	+0.36	140.36	5.36	38	11					
10:30	68	140	+0.45	140.45	5.45	43	11					
11:00	98	140	+0.95	140.95	5.95	40						
11:32	130	140	+1.15	141.15	6.15	45	11					
12:03	161	140	+1.58	141.58	6.58	42						
12:32	190	140	+1.67	141.67	6.67	42						
1:01	219	140	+1.90	141.90	6.90	44	10					
1:31	249	140	+2.27	142.27	7.27	43						
2:00	278	140	+2.27	142.27	7.27	44						
2:30	308	140	+3.00	143.00	8.00	38	11					
2:35	313							PUMPING RATE INCREASED				
2:40	318	145	-0.75	144.25	9.25	40		ON WELL #2				
2:45	323	145	-0.70	144.30	9.30	41						
2:50	328	145	-0.30	144.70	9.70							
2:55	333	145	-0.20	144.80	9.80	40						
3:00	338	145	0.0	145.00	10.00	40	11					
3:15	353	145	+0.20	145.20	10.20	39						
3:30	368	145	+0.45	145.45	10.45	40						
3:45	383	145	+0.62	145.62	10.62	41						
4:00	398	146	0.0	146.00	11.00	40						
4:02	400							PUMP STOPPED ON WELL #2				

* 1¼" ~~OPEN END~~ DISCHARGE PIPE TO HELP KEEP A STEADY PRESSURE IN TANK.

U. S. GOVERNMENT PRINTING OFFICE 16—48721-1

TABLE 2

9-330

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

File No. { Washington ____
District ____

RIVER HEIGHTS PUMPING TEST WELL #2 (OBS. WELL NORTH) 7-31-61

TIME	MIN	HELD	DIFF	W/L	RECOVERY	PRESSURE TANK						
4:03	1	145	-2.24	142.76	3.24							
4:05	3	145	-2.35	142.65	3.35	39						
4:07	5	145	-2.70	142.30	3.70	40						
4:09	7	140	+2.20	142.20	3.80	40						
4:12	10	140	+2.05	142.05	3.95							
4:15	13	140	+2.05	142.05	3.95	29						
4:17	15	140	+1.70	141.70	4.30	41						
4:22	20	140	+1.15	141.15	4.85	47						
4:27	25	140	0	140.00	6.00	43						
4:32	30	140	+1.05	141.05	4.95	41						
4:37	35	140	+1.00	141.00	5.00	42						
4:42	40	140	+0.85	140.85	5.15	42						
4:47	45	140	+0.80	140.80	5.20	42						

U. S. GOVERNMENT PRINTING OFFICE 16—45721-1

IOWA GEOLOGICAL SURVEY
Water Analysis Report
Iowa City, Iowa

County Johnson Date Sampled 11/27/56

Town Iowa City Sampled by Van Eck and Steinhilber

Location of well _____ sec. ___, T. ___ N., R. ___ _____ Twp.

Owner Swaner-Duncan Well No. _____ Depth 315 Ft.

Type of well _____ Static level _____ Ft. Altitude _____ Ft.

Producing Formation(s) _____ Depth Range _____

Was sample free of turbidity when collected? No

Notes on condition of well, casing, or formations:

Hydrant 30' from 500 gal. pressure tank
Clear with orange sediment when received. Lab filtered 11/28/56.

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

Silica (SiO_2)	8.2	Dissolved solids	491
Sol. Iron (Fe)	<0.05	Hardness (calc. as $CaCO_3$) Total	417
Manganese (Mn)	0.1	(as grains per gallon)	24.3
Calcium (Ca)	101	Carbonate	357
Magnesium (Mg)	40	Noncarbonate	60
Potassium (K)	4.0	Alkalinity (as $CaCO_3$)	357
Sodium (Na)	22	pH	7.8
Carbonate (CO_3)	none	Specific Conductance (micromhos at 25°C.)	797
Bicarbonate (HCO_3)	436	Temperature (°F.)	
Sulfate (SO_4)	82	**********	
Chloride (Cl)	6.5	Analysis No.	12780(4983)
Fluoride (F)	0.25	Date analyzed	12/17/56
Nitrate (NO_3)	<.44	I.G.S. Well No.	

Remarks:

PRIVATE

STATE HYGIENIC LABORATORY IOWA CITY, IOWA

WATER ANALYSIS

3

DEC – 3 1956

TOWN Iowa City COUNTY Johnson

OWNER OF SUPPLY Swaner-Duncan ~ 3943

COLLECTOR'S NAME Van Eck-Stembilber

DATE COLLECTED 11-27-56 DATE RECEIVED 11-28-56

REPORTED TO NAME: H. G. Hershey

ADDRESS: Geol. Annex Iowa City, Iowa

FIELD DATA					
POINT OF COLLECTION	hydrant 30' from 500gal. pressure tank				
SOURCE AND DEPTH	drilled well 315'				
TYPE OF PLATFORM	concrete				
DISTANCE FROM PRIVY, ETC.					
RESIDUAL CHLORINE ppm DET'D BY SAMPLE COLLECTOR					

PURPOSE FOR WHICH SAMPLE WAS COLLECTED: bacteria analysis

dt

LABORATORY ANALYSIS								
LABORATORY NUMBER				12764				
BACTERIOLOGICAL	10 ML. PORTIONS	LACTOSE TUBES	POSITIVE					
			PLANTED	0/5				
		B.G.B. TUBES	POSITIVE					
			PLANTED					
	1.0 ML. PORTIONS	LACTOSE TUBES	POSITIVE					
			PLANTED					
		B.G.B. TUBES	POSITIVE					
			PLANTED					
	0.1 ML. PORTIONS	LACTOSE TUBES	POSITIVE					
			PLANTED					
		B.G.B. TUBES	POSITIVE					
			PLANTED					
	COLIFORM BACTERIA (M.P.N.)*			0				
CHEMICAL	IRON ppm AS Fe							
	NITRATES (NO_3) ppm AS N.			none				
	HARDNESS AS $CaCO_3$		ppm					
			gpg					

The above is a bacterial interpretation. The nitrate content at the time of sampling was less than the amount LIKELY to cause cyanosis when used for infant feeding.

paid mrw

*INTERPRETATION OF BACTERIAL ANALYSIS

BACTERIALLY SATISFACTORY

R. L. MORRIS
Principal Chemist
STATE HYGIENIC LABORATORY

DIVISION OF PUBLIC HEALTH ENGINEERING
STATE DEPARTMENT OF HEALTH
DES MOINES 19, IOWA

*SEE REVERSE SIDE FOR EXPLANATION

4

IOWA GEOLOGICAL SURVEY
Water Analysis Report
Iowa City, Iowa

County Johnson Date Sampled 9/1/56

Town Iowa City Sampled by M. A. J. Smith

Location of well ____ sec. ___, T. ___ N., R. ___ ____ Twp.

Owner Swaner & Duncan Well No. Longview Knoll No. 1 Depth 315' Ft.

Type of well ____ Static level ____ Ft. Altitude ____ Ft.

Producing Formation(s) Niagaran Depth Range ____

was sample free of turbidity when collected yes

Notes on condition of well, casing, or formations:
well pumped 24 hrs. at 200 gpm. Clear when received.

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

Silica (SiO_2)		Dissolved solids	
Iron (Fe)	0.06	Hardness (calc. as $CaCO_3$)	
		Total	400
Manganese (Mn)	<0.05	(as grains per gallon)	23.4
Calcium (Ca)		Carbonate	
Magnesium (Mg)		Noncarbonate	
Potassium (K)		Alkalinity (as $CaCO_3$)	
Sodium (Na)		pH	
Carbonate (CO_3)		Specific Conductance (micromhos at 25°C.)	800
Bicarbonate (HCO_3)		Temperature (°F.)	
Sulfate (SO_4)	65 (est.)	**********	
Chloride (Cl)	4.0	Analysis No.	5613(Partial)
Fluoride (F)		Date analyzed	
Nitrate (NO_3)		I.G.S. Well No.	

Remarks:

STATE HYGIENIC LABORATORY IOWA CITY, IOWA

2

PRIVATE
IRON AND IRON BACTERIA

WATER ANALYSIS

TOWN Iowa City COUNTY Johnson

OWNER OF SUPPLY Harshbarger - River Heights

COLLECTOR'S NAME R. L. Morris

DATE COLLECTED 3-30-59 DATE RECEIVED 3-30-59

REPORTED TO NAME: Mr. R. L. Morris

ADDRESS: Medical Lab. Iowa City, Iowa

FIELD DATA					
POINT OF COLLECTION	Ahead of iron filters	Well #1 ~~immediately~~	2 min.		
SOURCE AND DEPTH					
TYPE OF PLATFORM					
DISTANCE FROM PRIVY, ETC.					
RESIDUAL CHLORINE ppm DET'D BY SAMPLE COLLECTOR					

PURPOSE FOR WHICH SAMPLE WAS COLLECTED:

mrw

LABORATORY ANALYSIS							
LABORATORY NUMBER				25242	25243	25244	
BACTERIOLOGICAL	10 ML. PORTIONS	LACTOSE TUBES	POSITIVE				
			PLANTED				
		B.G.B. TUBES	POSITIVE				
			PLANTED				
	1.0 ML. PORTIONS	LACTOSE TUBES	POSITIVE				
			PLANTED				
		B.G.B. TUBES	POSITIVE				
			PLANTED				
	0.1 ML. PORTIONS	LACTOSE TUBES	POSITIVE				
			PLANTED				
		B.G.B. TUBES	POSITIVE				
			PLANTED				
	COLIFORM BACTERIA (M.P.N.)*						
CHEMICAL	IRON ppm AS Fe			2.0	1.5	0.5	
	NITRATES (NO_3) ppm AS N.						
	HARDNESS AS $CaCO_3$		ppm				
			gpg				

*INTERPRETATION OF BACTERIAL ANALYSIS

25242-43-44
Iron Bacteria present.
Gallionella
Crenothrix

mrw

R. L. MORRIS
Principal Chemist
STATE HYGIENIC LABORATORY

DIVISION OF PUBLIC HEALTH ENGINEERING
STATE DEPARTMENT OF HEALTH
DES MOINES 19, IOWA

*SEE REVERSE SIDE FOR EXPLANATION

These analyses gathered for Swaner-Duncan housing-project site north of Iowa City sec. 28, T. 80 N., R. 6 W.

IOWA GEOLOGICAL SURVEY
TABULATION OF WATER ANALYSES
(Dissolved constituents in parts per million)

COUNTY _____

TOWN - Well No. / Use - Location	Date of coll.	Depth (ft.)	Geol. source	°F.	Diss. solids	Fe	Mn	Ca	Mg	K/Na / Na+K(as Na)	HCO_3	SO_4	Cl	F	NO_3	Hardness (calc. as $CaCO_3$) Tot.	Carb.	Non-carb.	pH	Cond.
L.V. Deardorff NW SE SE 28-80-6	6/13/52	189	c-v wcpa?	62	656	5.0	.05	123	52	5.7/25	454	197	6.5	.35	1.8	521	372	149	7.4	1010
C.A. Russell CSE 28-80-6	6/14/44	206½	cv-wcpa 5.1?	54	453	3.2	.07	118	41	5.9/	545	17	5.0	.20	.09	470	447	23	7.1	
Pete Russell NE NE NW-28-80-6	6/13/52	206	Co?	63	493	14.0	.12	120	43	1.9/49	527	44	7.0	.25	0	477	432	45	7.3	796
Robert Russell SW SW SE-28-80-6	6/13/52	224		58	462	0.1	0	99	41	4.1/16	429	77	3.5	.2	4.4	417	352	65	7.4	736
*J. Forman Gay C/SW NE 28-80-6	6/13/52	140?	Cv?	58	445	2.5	.22	119	35	2.0/6.0	525	8.8	7.5	.35	0	441	430	11	7.3	750
Currier Hall	6/28/54	425	Sil		600	0.2	0	110	43	4.9/38	439	147	3.0	0.2	9.7	452	360	92	7.8	775
SUI Mem. Union	8/3/56	369	Sil	53	868	.52	.12	145	59	4.3/35	422	242	105	0.3	0	605	346	259	7.3	1290
SUI Golf Course (1953)	8/25/53	367	Sil		1342	0.9	0	183	77	9.0/110	339	671	27	0.4	0	774	278	496	7.9	1335

NOTES: