WRD Exp. (Dec)
Aug. 1964

Punched FCH

U. S. DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

Water Resources Division Well Schedule Form

MASTER CARD

COUNTY HWY.

Record by D. AARONSON Source of data FILE Date 7/1/65 Map 1:63,360

State IOWA [16] County (or town) CALHOUN [13]

Latitude: 42 16 11 N Longitude: 094 32 58 Sequential number: 1

Lat-long accuracy: 2 T. 86 N. R. 32 W. Sec 11 NE¼ SW¼ SW¼ 5

Local well number: 086 32 W1 1 C C R Other number: W-2654

Local use: 026 59 46 CITY Owner of name: LOHRVILLE CITY WELL

Owner or name: LOHRVILLE IOWA Address: LOHRVILLE, IOWA

Ownership: (C) County, (F) Fed Gov't, (M) City, (N) Corp or Co, (P) Private, (S) State Agency, (W) Water Dist M

Use of water: (A) Air cond, (C) Comm, (D) Dewatering, (F) Fire, (H) Dom, (I) Irr, (N) Ind, (P) P-S, (S) Stock, (T) Instl, (U) Unused P

Use of well: (A) Anode, (D) Drain, (G) Seismic, (O) Obs, (O) Oil-gas, (R) Recharge, (S) Spring, (T) Test, (U) Unused, (W) Withdraw, (X) Waste, (Z) Destroyed W

DATA AVAILABLE: Well data 1 Freq. W/L meas.: INVENTORY Field aquifer char.

Hyd. lab. data:

Qual. water data: type: COMPLETE C

Freq. sampling: IRREGULAR I Pumpage inventory: yes no, period:

Aperture cards: yes

Log data: GEOLOGIST LOG - DRILLER'S LOG G D

WELL-DESCRIPTION CARD

SAME AS ON MASTER CARD Depth well: 210 ft 210 Meas. (rep.) 6

Depth cased: (&/or perf.) 178 ft 178 Casing type: STEEL ; Diam. 10 in accuracy 10

Finish: (C) perfor concrete, (F) gravel w. (perf.), (G) gravel w. (screen), (H) horiz. gallery, (O) open end, (P) perf., screen, (S) sd. pt., (T) shored, (W) open hole, (X) other (Z) S

Method Drilled: (A) air rot, (B) bored, cable, (D) dug, (H) hyd rot., (J) jetted, (P) air percussion, rotary, (R) reverse trenching, (T) driven, (V) drive wash, (W) other (Z) C

Date Drilled: NOV. 1946 9 9 46 Pump intake setting: ft

Driller: THORPE WELL CO (GUY ELAM - J W THORPE) address DES MOINES, IA.

Lift (type): (A) air, (B) bucket, cent, (C) (2) jet, (L) multiple, (cent.) (M) multiple, (turb.) (N) nose, piston, rot, submerg, (S) turb, (T) other Deep Shallow D

Power (type): diesel, elec, gas, gasoline, hand, nat gas, wind; LPG H.P. Trans. of meter no.

Descrip. MP CURB ? ft above below lsd, Alt. MP 1151

Alt. LSD: 1151 Accuracy (source) 7

Water Level 70 ft above below MP; ft above below lsd Accuracy: REPORTED 6

Date meas: Yield: 135 gpm 135 Method determined

Drawdown: 70 ft 70 Accuracy: REPT. 6 Pumping period hrs

QUALITY OF WATER DATA: Iron 3.5 ppm 6 Sulfate 482.3 ppm 7 Chloride 1.0 ppm 0 Hard. 838 ppm 8

Sp. Conduct 1497 K x 10⁵ 5 Temp. °F Date sampled 12/18/96 D 9 6

Taste, color, etc.

086-32W-11 c c a

Well Number 42.16.11 @ 034.32.58

HYDROGEOLOGIC CARD

SAME AS ON MASTER CARD | Physiographic Province: CENTRAL LOWLAND [12] | Section: WESTERN

LAKE [8] Drainage Basin: RACCOON [25A] Subbasin: [ ]

Topo of well site: (D) local depression, (F) flat surface, (H) hilltop, hillside, (S) terrace, (T) valley flat, (V) [ ]

MAJOR AQUIFER: QUATERNARY (system) PLEIST. (series) [QG] aquifer, formation, group [GX]

Lithology: SAND AND GRAVEL [R] Origin: GLACIAL [O] Aquifer Thickness: [ ] ft

Length of well open to: 32 ft [32] Depth to top of: [ ] ft [ ]

MINOR AQUIFER: [ ] system, [ ] series [ ] aquifer, formation, group [ ]

Lithology: [ ] Origin: [ ] Aquifer Thickness: [ ] ft

Length of well open to: [ ] ft Depth to top of: [ ] ft

Intervals Screened: NONE

Depth to consolidated rock: [ ] ft Source of data: [ ]

Depth to basement: [ ] ft Source of data: [ ]

Surficial material: CALCAREOUS GRAVEL [GG] Infiltration characteristics: GOOD [2]

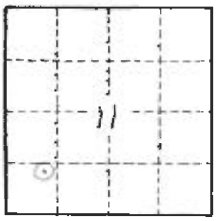
Coefficient Trans: [ ] gpd/ft Coefficient Storage: [ ]

Coefficient Perm: [ ] gpd/ft^2; Spec cap: [1.9] gpm/ft; Number of geologic cards: [ ]

CASING:

180' OF 10" CASING FROM +2' TO -178'

GRAVEL PACKED



GPO 862 225

R-1-3

THORPE WELL COMPANY

2340 SIXTH AVENUE

DES MOINES, IOWA

W-2654

Drilled for City *at* Lohrville, Iowa

Well is located ____ *miles N-E-S-W and* ____ *miles N-E-S-W from* ____

in the ____ ¼ ____ ¼ *Section* ____ *Township* ____ *Range* ____

Drilling started November 19 *19*46 *Completed* November 23, 1946 *19*

Well No. 2 *Kind of Well* Gravel pack *Depth* 210 *Size hole started* 16" *in.*

Finish 10" *G. P. M.* 135 *Static head* 70 *Drawdown* 70

Water was first encountered at 175 *in* ____ *Approx. Amt.* ____ *Temp.* ____

Remarks 1 side hole drilled to pack screen 7' 9"

14 ton of gravel put in hole. Hole completed and o.k. by Mayor

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
10"	180'	176'	2 Ft. above Surface	Steel	16	45'5"
					13"OD	107-5"
6"	20'	198	178			
5"	27'9"	178	151	Attached to screen		

Driller _____ From Surface to 210 feet

Driller _____ From _____ feet to 210 feet

Driller _____ From _____ feet to _____ feet

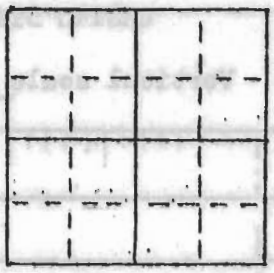
AMOUNT IN FEET	KIND OF SOIL OR FORMATION (BE SPECIFIC)	TOTAL DEPTH FEET
3	Subsoil	3
17	Yellow clay	20
40	Blue clay	60
10	Sandy clay & gravel	70
5	Blue clay	75
15	Sandy blue clay	90
34	Blue shale	124
31	Sand & gravel with shale	155
10	Sandy blue clay	165
10	Dokato sand & clay	175
20	Soft Dokato sand	195
7	Hard Dokato sand	202
8	Blue shale	210

7½' Lohrville Quad
421614N-0943252-01
86-32W-11 CCAD
Elev. 1152' CI=10'
1983 field located

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

N-2654

RECORD OF WELL



Location:

Town: Lohrville (N E S W): County Calhoun E.

NE¼ SW¼ SW¼ sec. 11 T 86 N., R. 32 W. Union Twp.

Well name and number

Owner City of Lohrville Address

Tenant Address

Contractor Tom Thorpe Address Des Moines, Iowa

Drillers Guy Elam, J.W. Thorpe

Drilling dates Nov. 19 - Nov. 23, 1946

Well data:

Elevations: Drilling curb 1151 feet; Land surface feet

Determined by

Topographic position

Total depth: Reported 210' feet, Measured feet

Drilling method Cable Tool

Hole and casing data

12" hole, using 10" casing from 0-210'

106'6" of 13" casing set temporarily

6-8" screen to be used

Original depth to water 70 ft. ~~above~~ below Date

Original elevation of water level ft.; Source of data

Sources of water: Principal Pleistocene; Others

Production data: Date

Static depth to water 70 Measuring point

Pumping level 140 at 135 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				
Sampled by				
Total solids				
Insoluble matter				
Alkalinity (Meo)				
Alkalinity (Phn)				
pH				
Fe_2O_3+ Mn_2O_3 +Al_2O_3				
Alkali as sodium				
Calcium				
Magnesium				
Iron (unfiltered)				
Manganese				
Nitrate				
Fluoride				
Chloride				
Sulfate				
Bicarbonate				
Hardness (ppm)				
Hardness (gpg)				

Remarks

Laboratory data: Sample storage location

Sample range 0-210 No. spls. 43 No. dupls. & cond. 43-F

Spls. prepared by PJH Washed range 200-210 by JFR

Driller's log and cond. No.

Insoluble residues: Prepared by Studied by Strip log

Microscopic study 0-210 strip log Jan 21, 1947

Gen. log Correl. by Sm. Parker

Wt#2654 [illegible] FKE 7-[illegible]

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

LAB. NO. 2871
MINERAL NO. 4463
28 Aug 19 64

TOWN Lohrville COUNTY Calhoun
OWNER OF SUPPLY Town of Lohrville
COLLECTOR'S NAME D C Morgan
DATE COLLECTED 1 June 1964 DATE RECEIVED 2 June 1964
REPORT TO: NAME Division of Public Health Engineering
ADDRESS State Department of Health

FIELD DATA

SOURCE: WELL NAME, NUMBER, POINT OF COLLECTION, DEPTH, CONSTRUCTION DATE, ETC.,
Well #3 648 ft deep, May 10, 1960
Sample taken at tap in Pumphouse treated water.

WELL PUMPED 10 HRS. AT 150 GPM. DATE OF PREVIOUS SAMPLE
WAS SAMPLE FREE OF TURBIDITY WHEN COLLECTED Yes
TEMPERATURE °C ALKALINITY (ppm $CaCO_3$) P T pH
IS A POLYPHOSPHATE BEING USED?

LABORATORY ANALYSIS
(PARTS PER MILLION)

SPECIFIC CONDUCTANCE K AT 25°C 113 x 10^{-5}. TURBIDITY
DISSOLVED SOLIDS 759 SOLUBLE IRON (Fe) 0.06
TOTAL SOLIDS 759 SILICA (SiO_2) 8.8 TOTAL IRON (Fe) 0.06
ALKALINITY (ppm $CaCO_3$) P 10.0 T 128 pH 8.7 DATE 2 June 1964

POSITIVE IONS		NEGATIVE IONS	
K+	5.3	NO_3– [redacted]	3.2
Na+	186	F–	0.25
Ca++	12.8	Cl–	1.5
Mg++	26.2	SO_4--	413
Mn++	< 0.05	HCO_3–	144
Al+++		CO_3--	12.0

HARDNESS AS $CaCO_3$ 140 ppm 8.2 gpg

ANALYST Ryan, Pierson

R. L. MORRIS
PRINCIPAL CHEMIST

bw

W# 2654

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

LAB. NO. 915
MINERAL NO. 1639
11/25 19 59

TOWN Lohrville COUNTY Calhoun
OWNER OF SUPPLY Town of Lohrville
COLLECTOR'S NAME D. C. Morgan
DATE COLLECTED 10/23/59 DATE RECEIVED 10/26/59
REPORT TO: NAME Engineering Division
ADDRESS State Department of Health

FIELD DATA

SOURCE: WELL NAME, NUMBER, POINT OF COLLECTION, DEPTH, CONSTRUCTION DATE, ETC., Well # 2

WELL PUMPED 8 HRS. AT 85 GPM. DATE OF PREVIOUS SAMPLE
WAS SAMPLE FREE OF TURBIDITY WHEN COLLECTED Yes
TEMPERATURE 51°F ALKALINITY (ppm $CaCO_3$) P T pH 7.4
IS A POLYPHOSPHATE BEING USED? No

LABORATORY ANALYSIS
(PARTS PER MILLION)

SPECIFIC CONDUCTANCE K AT 25°C 153 x 10^{-5}. TURBIDITY
DISSOLVED SOLIDS 1201 SOLUBLE IRON (Fe) 0.44
TOTAL SOLIDS 1201 SILICA (SiO_2) 26.4 TOTAL IRON (Fe) 0.44
ALKALINITY (ppm $CaCO_3$) P None T 498 pH 7.25 DATE 10/26/59

POSITIVE IONS		NEGATIVE IONS	
K^+	6.0	NO_3 — asN	1.8
Na^+	76.0	F^-	0.3
Ca^{++}	200	Cl^-	<0.5
Mg^{++}	70.0	SO_4^{--}	440
Mn^{++}	2.46	HCO_3^-	608
Al^{+++}		CO_3^{--}	None

HARDNESS AS $CaCO_3$ 788 ppm 46.0 gpg

ANALYST Ehrhardt, Chang

R. L. MORRIS
(D.E.) PRINCIPAL CHEMIST

ad

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey
Water Resources Division

Water Quality
(ppm)

Local Well No. 086-32W-11CCA
Aquifer Code(s) Q66X
Owner's Name LOHRVILLE CITY (1946)
W Number 02654

Card Q

State: IOWA [19] (1 2) County: CALHOUN [13] (3 4) Town: LOHRVILLE, IOWA

Well No. Latitude [4216111N] (5–11) Longitude [094325 8] (12–18) Seq. No. [1] (19) Date (M D Y) [091269] (20–25)

Sampling Depth [210] (26–29) Type [1] (30) Kx10^6 [1500] (31–35) pH [7.2] (36–38) Temp. °F [ ] (39–41)

SiO_2 [25.] (42–44) Ca [201.] (45–49) Mg [64.] (50–53) Na [73.] (54–58) K [7.1] (59–61)

Source No. [3] [Q] (79–80)

HCO_3 [597] (62–65) CO_3 [0] (66 67) SO_4 [450.] (68–72) Cl [.5] (73–78)

Card R

Duplicate Columns 1-25 from Card Q

F [.4] (26–28) NO_3 [.5] (29–32) PO_4 [ ] (33–35) B [ ] (36–38) Al [ ] (39–41) Fe [12.] (42–45)

Mn [.30] (46–49) Cu [ ] (50–52) Pb [ ] (53 54) Zn [ ] (55–57)

Solids Determined [1200] (58–63) Calc. [ ] (64–69) Hardness Ca,Mg [766] (70–73) Non-Carb. [277] (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 $CaCO_3$ [489] (32–35) Free CO_2 [ ] (36–38) SAR [ ] (39–41)

RSC [ ] (42–44) ABS [ ] (45–47) [ ] (48–50) [ ] (51–54)

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

No. [S] (80)

Recorded by: D. AARONSON

Punched by: T Date:

Published:

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey
Water Resources Division

Water Quality
(ppm)

Local Well No. 086-32W-11CCA
Aquifer Code(s) QGGX
Owner's Name LOHRVILLE, IOWA CITY (1946)
W Number 02654

Card Q

State: IOWA [19] (1-2) County: CALHOUN [13] (3-4) Town: LOHRVILLE, IOWA

Well No. Latitude [42 16 11 N] (5-11) Longitude [094 32 58] (12-18) Seq. No. [1] (19) Date M D Y [10 23 59] (20-25)

Sampling Depth [210] (26-29) Type [1] (30) Kx10^6 [1530] (31-35) pH [7.3] (36-38) Temp. °F [51] (39-41)

SiO_2 [26.] (42-44) Ca [200.] (45-49) Mg [70.] (50-53) Na [76.] (54-58) K [60] (59-61)

HCO_3 [608] (62-65) CO_3 [0] (66-67) SO_4 [440.] (68-72) Cl [5] (73-78) Source No. [3] (79) [Q] (80)

Card R

Duplicate Columns 1-25 from Card Q

F [.3] (26-28) NO_3 [80.] (29-32) PO_4 [ ] (33-35) B [ ] (36-38) Al [ ] (39-41) Fe [.44] (42-45)

Mn [2.5] (46-49) Cu [ ] (50-52) Pb [ ] (53-54) Zn [ ] (55-57)

Solids Determined [1200] (58-63) Calc. [ ] (64-69) Hardness Ca,Mg [788] (70-73) Non-Carb. [290] (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 $CaCO_3$ [498] (32-35) Free CO_2 [ ] (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] (80)

Recorded by: D. AARONSON

Punched by: T Date:

Published:

086-32W-11 CCA

QGX

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey
Water Resources Division

W-2654

Water Quality
(ppm)

Card Q

State: IOWA (1 2: 16) County: CALHOUN (3 4: 13) Town: LOHRVILLE

Well No. (5–11: 42161 N) Latitude Longitude (12–18: 094325 8) Seq. No. (19: 1) Date (20–25: M 12 D 18 Y 46)

Sampling Depth (26–29: 210) Type (30: 1) Kx10^6 (31–35: 1497) pH (36–38: 7.2) Temp. °F (39–41: 84 NOAK)

SiO_2 (42–44: .) Ca (45–49: 214.) Mg (50–53: 71.) Na (54–58: .) K (59–61: .)

HCO_3 (62–65: 608) CO_3 (66 67: 0) SO_4 (68–72: 482.) Cl (73–78: 10.) Source No. (79 80: 3 Q)

Card R

Duplicate Columns 1-25 from Card Q

F (26–28: .6) NO_3 (29–32: .9) PO_4 (33–35: .) B (36–38: .) Al (39–41: .) Fe (42–45: 35.)

Mn (46–49: 35.) Cu (50–52: .) Pb (53 54: .) Zn (55–57: .)

Solids Determined (58–63: 1260) Calc. (64–69:) Ca,Mg (70–73: 838) Hardness Non-Carb. (74–77:)

Color (78 79:) No. (80: R)

Card S

Duplicate Columns 1-25 from Card Q

Br (26–28: .) I (29–31: .) Alk. as $CaCO_3$ (32–35:) Free CO_2 (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. (80: S)

Verified PMJ

Recorded by: D. AARONSON

Punched by: Punched FCH Date:

Published:

Samples

IOWA GEOLOGICAL SURVEY
Iowa City, Iowa

Well Log Record

Owner of well City of Lohrville County Calhoun

Tenant Town Lohrville

Location NE SW SW sec. 11, T. 86 N., R. 32 E. W. Union Twp.

Curb elevation 1151 ft. Present depth 210 ft. final depth 210 ft.

Static level: (Depth to water above / below curb) ft. Pumping level ft. at gpm.

Contractor Thorpe (Guy Elam, J.W. Thorpe) Date drilled Nov. 19-Nov. 23, 1946

Description*	FEET Thick	From	To	Description*	FEET Thick	From	To
Yellow Clay, Sandy Boulders		0	15	Sandstone (DK		170	185
Yellow Clay, Sandy		15	35	Blue Shale (Frost)		185	187
Blue Clay		35	40	Sandstone (DK)		187	202
Blue Clay (Sandy)		40	65	Gray Shale		202	210
Sand & Gravel (Coal Stalks)		65	90				
Blue Clay		90	100				
Blue Clay (Sandy)		100	155				
Blue Clay (Coarse Gravel)		155	165				
Sandstone (DK, Muddy)		165	170				

*Abbreviate descriptions; use one line for each formation.

Remarks on water zones and casings

12" hole using 10" casing, entire depth of hole

6" on 8" screen to be used

106'6" of 13" casing set temporarily.

Sta C.G.W.R.R. Sta new well sta well sta well

Time	Reading		
11:00 am	884	+264	1148
11:01 am	888	+263	1151
11:04	887	+261	1148
11:06	886	+265	1151
11:09	876	+272	1148
11:12	873	+278	1151

Temperature: Air °F., Water °F. at A.M. P.M. 19

Record obtained from Recorded by W.E. Hale + D.A. Morris

Old well 205' deep W.T. 50°F Locale
S.W.L. about 60'
P.W.L. about 100 at 50gpm

State of Iowa

Calhoun Co

IOWA NATURAL RESOURCES COUNCIL

REPORT ON WATER USE

Permittee: Town of Lohrville Permit # 574

Submit a report for each 3-month period.

Maximum rate of use _____. Indicate units used on rate (CFS OR GPM, ETC.) and amount (ACRE-FEET OR GALLONS).

DAY	MONTH January 1965 GPD	GPM	SHL	DD	MONTH February 1965 GPD	GPM	SHL	DD	MONTH March 1965 GPD	GPM	SHL	DD
1	38860	140			74430	138	107	2	69460	135		
2	76180	141			75490	138			55630	135		
3	47630	141			68560	138			56970	135		
4	74100	141	107	2	66530	138			58190	135		
5	63390	141			53360	138			51130	135	107	2
6	57160	141			66910	137			62660	135		
7	68520	141			41810	137			50960	135		
8	66300	141			71640	137	107	2	61010	135		
9	53640	141			66080	137			68650	134		
10	41150	140			60810	137			57010	134		
11	66060	140			50050	137			63440	134		
12	69100	140			51880	137			61660	135	107	2
13	62710	140	107	2	61090	137			65220	135		
14	54210	140			42670	137			42710	135		
15	52360	140			65600	136	107	2	59050	135		
16	58650	140			75090	136			50610	135		
17	40590	140			74540	136			54230	135		
18	64920	139			61040	136			53020	135		
19	69360	139			57250	136			60510	135		
20	66530	139			65250	136			55680	135		
21	61050	138	107	2	38540	136			42150	135		
22	61350	138			93590	136	107	2	72760	135	107	2
23	57970	139			52550	135			55960	135		
24	43810	139			54260	135			51970	135		
25	68910	138			74510	135			54970	135		
26	65070	138			69540	135			61540	135		
27	64070	138			62110	135	107	2	63830	135		
28	52080	138	107	2	31540	135			23530	135		
29	55980	135							56090	135		
30	59330	138							72080	135	107	2
31	34090	138							54470	134		
TOTAL	1615320				1120110				1772660			

Signed A. C. Thompson
PERSON REPORTING

Relationship Water Supt
PERMITTEE, AGENT OR POSITION OF EMPLOYEE

CP-23083

State of Iowa

IOWA NATURAL RESOURCES COUNCIL

REPORT ON WATER USE

Permittee: Town of Johnsville Permit # 674

Submit a report for each 3-month period.

Maximum rate of use _____. Indicate units used on rate (CFS OR GPM, ETC.) and amount (ACRE-FEET OR GALLONS).

GPD GPM 540.00 GPD GPM 540.00 GPD GPM 540.00

DAY	MONTH APRIL		1965		MONTH MAY		1965		MONTH JUNE		1965	
1	45150	132			64420	145			53950	143	107	2
2	58340	130			77170	148			53440	143		
3	59650	130			83640	145			67310	143		
4	40750	130			65020	145			65590	143		
5	57200	150			69140	145			64470	140		
6	53350	130	107	2	52350	145	105	2	54470	140		
7	67150	130			72050	148			77740	140		
8	60800	150			63610	145			67200	140		
9	57430	130			59100	145			58470	138		
10	53560	150			72170	148			63350	138	102	2
11	39720	150			60560	148			66860	133		
12	68230	150			67850	148			44730	138		
13	72390	150			62490	147			55240	138		
14	43200	150			74560	147			74720	138		
15	67650	150			71930	147			70260	136		
16	58500	150			66530	146			87560	150		
17	67500	150			73410	150			85060	150		
18	49840	150			64090	147			92590	150		
19	70670	150			85066	147	105	2	61450	150		
20	69210	150	105	2	65030	146			55360	150		
21	64600	150			59970	146			56500	150		
22	68470	148			82520	145			73270	150	107	2
23	80080	148			30190	145			68210	150		
24	60270	148			71080	145			70630	150		
25	38100	150			65360	145			66550	150		
26	76410	150			65830	145			68200	150		
27	63700	150			61910	145			47460	150		
28	65190	150			61670	145			86500	150		
29	59460	148			59360	145			79050	150		
30	67590	145			46410	145			55430	150		
31					76720	144						
TOTAL												

Signed R. C. Morgan
PERSON REPORTING

Relationship Water Supt
PERMITTEE, AGENT OR POSITION OF EMPLOYEE

CP-23083

State of Iowa

IOWA NATURAL RESOURCES COUNCIL

REPORT ON WATER USE

Permittee: Town of Lohrville Permit # 674

Submit a report for each 3-month period.

Maximum rate of use _____. Indicate units used in rate (CFS OR GPM, ETC.) and amount (ACRE-FEET OR GALLONS).

DAY	MONTH July	GPD	GPM	Sec-Ft	DD	19 65	MONTH August	GPD	GPM	Sec-Ft	DD	19 65	MONTH September	GPD	GPM	Sec-Ft	DD	19 65
1	58960	130	107	2			36320	145					51600	143	107	2		
2	61310	150					72690	145					62050	143				
3	76540	150					66600	145					55160	143				
4	42180	150					72460	135					47960	143				
5	58710	150					67500	145	107	2			41010	143				
6	70660	150					67740	145					46160	140				
7	72390	150					68520	145					63840	140				
8	71180	150	107	2			54030	145					51900	140	101	2		
9	65050	150					54000	145					53490	140				
10	68950	148					50530	145					56900	140				
11	46150	148					60540	143					47550	140				
12	51080	146					70050	143					39530	140				
13	73920	146					75430	143					62820	140				
14	59400	146					64360	143	107	2			51360	140				
15	75620	146	107	2			41880	143					50830	140				
16	74310	146					76470	145					42710	140				
17	75890	135					63120	143					50660	140	107	2		
18	51460	135					48510	143					47150	140				
19	72620	135					58650	143					42250	140				
20	63790	135					59400	143					54950	140				
21	49530	135	107	2			46970	143					55880	140				
22	64100	130					56560	143					35420	140				
23	70360	135					66770	143					66650	140				
24	73010	135					52620	143	107	2			51290	140				
25	60880	135					53190	143					55130	143				
26	75300	135					51940	143					51190	143	107	2		
27	70020	135					64100	143					62500	143				
28	67240	135					55530	143					40240	143				
29	33140	135					32860	143					63530	143				
30	89850	140	107	2			58130	143					52110	143				
31	76570	145					53560	143										
TOTAL	2055[illegible]20						1371[illegible]20						1[illegible]4[illegible]20					

Signed K. E. Madigan
PERSON REPORTING

Relationship Water Supt.
PERMITTEE, AGENT OR POSITION OF EMPLOYEE

CP-23083

State of Iowa

IOWA NATURAL RESOURCES COUNCIL

REPORT ON WATER USE

Permittee: Town of Lombard Permit # 674

Submit a report for each 3-month period.

Maximum rate of use _____ Indicate units used on rate (CFS OR GPM, ETC.) and records (ACRE-FEET OR GALLONS).

DAY	MONTH OCTOBER 1965				MONTH NOVEMBER 1965				MONTH DECEMBER 1965			
	GPD	GPM	SHL	OD	GPD	GPM	SHL	OD	GPD	GPM	SHL	OD
1	52100	143	107	2	60180	135			40470	140		
2	55440	142			53160	138	107	2	66650	137	107	2
3	44050	137			49010	138			52770	143		
4	67730	141			70470	140			49420	143		
5	56210	143			54030	143			41970	143		
6	48400	143			54850	140			60350	143		
7	50750	142			46950	140			48450	135		
8	53290	142			57440	135			58220	143		
9	50280	143			43590	143			61010	143	107	2
10	40570	143			56980	143	107	2	53430	143		
11	64930	143			60410	143			56370	143		
12	40540	143			52100	143			57940	143		
13	59320	142			62960	143			62310	143		
14	56170	141			41620	143			56900	143		
15	54720	142			51760	143			58040	143		
16	66150	139			56330	143			64880	143	107	2
17	37480	142			59520	143	107	2	44750	138		
18	68250	142			56950	143			49920	143		
19	47120	141			56880	143			52310	143		
20	43090	141	107	2	68500	143			64570	143		
21	58220	143			43290	143			51480	143	107	2
22	54540	141			64770	143	107	2	63440	143		
23	59930	143			52920	143			59830	145		
24	27940	140			56900	143			54200	145		
25	73470	143			34670	145			31910	145		
26	62460	143	107	2	64460	145	107	2	51310	145	107	2
27	60200	143			51630	145			70350	145		
28	72870	143			50390	145			50360	145		
29	60650	143			60890	140			[illegible]	[illegible]		
30	46110	140			58660	140			[illegible]	145	107	2
31	39060	135							[illegible]	145	107	2
TOTAL	1608760				1633120				[illegible]			

Signed R. C. McGrew
PERSON REPORTING

Relationship Water Supt.
PERMITTEE, AGENT OR POSITION OF EMPLOYEE

CP-2308A

Ave daily = 53002.9

Iowa
State Department of Health
DISTRICT HEALTH SERVICE
NO. 5

WALTER L. BIERRING, M. D.
COMMISSIONER
DES MOINES, IOWA

IN REPLYING
ADDRESS
X. P. Boyles
Public Health Engineer

NOV 15 [illegible]

Fort Dodge, Iowa

November 14, 1946

Mr. H. G. Hershey
Associate Geologist
Geology Annex
Iowa City, Iowa

Dear Mr. Hershey:

The Thorpe Well Company will commence drilling operations at Lohrville on Saturday, November 16th, or Monday, November 18th.

They plan to work day and night on the ten-inch well which will be approximately 210 feet deep. The location of this new well is approximately 80 feet north of the present pump house.

Very truly yours,

DISTRICT HEALTH SERVICE NO. 5

X. P. Boyles

X. P. Boyles
Public Health Engineer

XPB:mcl
CC: Mr. P. J. Houser
Acting Director
Div. of Public Health Engineering
State Department of Health
Des Moines 19, Iowa