1 OF 2

Iowa Department of Natural Resources Geological Survey Bureau
109 Trowbridge Hall, Iowa City, IA 52242-1319 PH (319) 335-1575

WELL RECORD

WELL # 1 SOUTH

Permit No. 64060

Site identification

Property Owner CITY OF JOICE Well Number _____
Address LAKE ST JOICE IA
Tenant SAME
Well Depth 300 ft Date completed 5 / 17 / 07

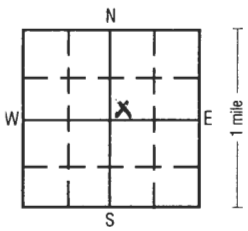
Location

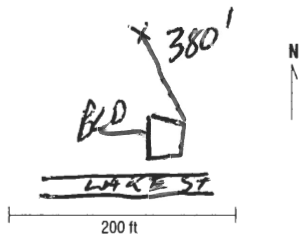
County [redacted] WORTH

_____ mi. N/S and _____ mi. E/W of intersection of _____ and _____

SW 1/4 of the SW 1/4 of the NE 1/4 of Sec 28 TWP 99 RNG 22 E/W

Show exact location of well in section grid with a dot (●). Sketch map of well location on property.





☒ upland ☐ hillside ☐ valley Elevation (if known) _____

Formation log

From	To	Color	Hardness	Formation description
0	2	BLK	SOFT	TOPSOIL
2	11	BRN	"	SANDY CLAY
11	60	GRY	"	"
60	54	MULT	"	SAND
54	73	BRN	"	SANDY CLAY
73	88	GRY	"	"
88	92	DK GRY	"	CLAY
92	97	BLE	MED	SHALE & CLAY
97	101	BRN	MED	LIMESTONE
101	162	BRN	HARD	"
162	172	BRN GRY	"	"
172	187	BRN	"	"
187	198	GRY	"	"
198	209	BRN GRY	"	"
209	211	GRY	"	"
211	225	BRN GRY	"	"
225	230	BRN	"	"

use additional sheets as needed

Remarks (including depth of lost drilling fluids, materials, or tools)

Well use

☐ Domestic ☒ Municipal ☐ Commercial
☐ Livestock ☐ Public supply ☐ Monitoring
☐ Test well ☐ Irrigation ☐ Other _____ (explain)

Drill method

☒ rotary ☐ auger ☐ cable other _____

Hole size

12 1/4 inch from 0 ft to 119 ft
7 7/8 inch from 119 ft to 300 ft

hole size continued

_____ inch from _____ ft to _____ ft
_____ inch from _____ ft to _____ ft

Record all depth measurements from ground level (GL). Use (+) for above GL measurements.

Casing

Drive shoe (yes / no) Pitless adapter (yes / no)

Size (ID/OD)	Type / Wt	Depth top	Depth bottom	Amount (length)
8"	.322 THC STEEL	+2	119	121

Perforated or slotted casing? (yes / no)

Perforated / slotted from _____ ft to _____ ft
Perforated / slotted from _____ ft to _____ ft

Casing grouted? (yes / no) Placement method TREMIE

Type	Depth Top	Depth bottom	Amount (vol/wt)
NEAT CEMENT	0	119	100 BAGS

Well screen? (yes / no)

Diameter	Slot size	Depth Top	Depth Bottom	Length	Material
	0.___				
	0.___				

Bottom capped (yes / no) with _____
Seals / Packers (yes / no) kind _____ depth _____ ft
Gravel packed (yes / no) from _____ ft to _____ ft
type _____ amount _____

Well developed? (yes / no)

Explain _____
(pumped, airlifted, bailed) for 10 hrs at 200 GPM.

Pump installed? (yes / no) Date ____ / ____ / ____

Installer's name MORTS WATER CO
Type of pump _____ Depth to intake _____ ft
Pump diameter _____ Rated capacity _____ GPM

Water information

Aquifer: ☐ sand / gravel ☒ limestone ☐ sandstone
Main water-supply zone from 138-142 ft to 280-288 ft ☐ seepage well
Static water level 15 ft (below / above) GL; ☒ tape ☐ airline ☐ E-line ☐ estimate
Pumping water level 100 ft below GL; ☐ tape ☐ airline ☐ E-line ☒ estimate
At yield of 170 GPM; ☐ orifice ☐ volumetric ☒ estimate
Measurements taken at 1 : _____ (AM / PM) Date 5 / 17 / 07

Water quality test? (yes / no) Date tested 5 / 14 / 07

Tested by [illegible] LATIMER IA

Contractor MORT'S WELL CO.
Address BOX 715
Driller [illegible] LATIMER IA 50450 Certification no. 1857

white copy – **Iowa DNR, Geological Survey Bureau** blue copy – **Well Contractor** pink copy – **Customer** yellow copy – **County Health Officer**

Iowa Department of Natural Resources Geological Survey Bureau
109 Trowbridge Hall, Iowa City, IA 52242-1319 PH (319) 335-1575

WELL RECORD

WELL #1 SOUTH 1 OF 2

540 60

Permit No. _____

Site identification

Property Owner CITY OF JOICE Well Number _____

Address _____

Tenant _____

Well Depth 300 ft Date completed 5 / 17 / 07

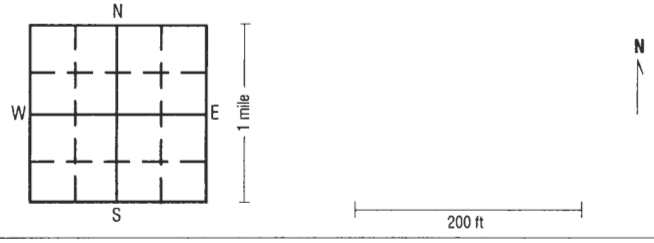
Location

County _____

_____ mi. N/S and _____ mi. E/W of intersection of _____ and _____

_____ 1/4 of the _____ 1/4 of the _____ 1/4 of Sec _____ TWP _____ RNG _____ E/W

Show exact location of well in section grid with a dot (●). Sketch map of well location on property.



☐ upland ☐ hillside ☐ valley Elevation (if known) _____

Formation log

From	To	Color	Hardness	Formation description
230	280	BRN/GRY	HARD	LIMESTONE
280	295	BRN	"	"
295	298	GRY/BRN	"	"
298	300	GRY	"	"

use additional sheets as needed

Remarks (including depth of lost drilling fluids, materials, or tools)

Well use

☐ Domestic ☐ Municipal ☐ Commercial
☐ Livestock ☐ Public supply ☐ Monitoring
☐ Test well ☐ Irrigation ☐ Other _____ (explain)

Drill method

☐ rotary ☐ auger ☐ cable other _____

Hole size

_____ inch from 0 ft to _____ ft

_____ inch from _____ ft to _____ ft

hole size continued

_____ inch from _____ ft to _____ ft

_____ inch from _____ ft to _____ ft

Record all depth measurements from ground level (GL). Use (+) for above GL measurements.

Casing

Drive shoe (yes / no) Pitless adapter (yes / no)

Size (ID/OD)	Type / Wt	Depth top	Depth bottom	Amount (length)

Perforated or slotted casing? (yes / no)

Perforated / slotted from _____ ft to _____ ft

Perforated / slotted from _____ ft to _____ ft

Casing grouted? (yes / no) Placement method _____

Type	Depth Top	Depth bottom	Amount (vol/wt)

Well screen? (yes / no)

Diameter	Slot size	Depth Top	Depth Bottom	Length	Material
	0.___				
	0.___				

Bottom capped (yes / no) with _____

Seals / Packers (yes / no) kind _____ depth _____ ft

Gravel packed (yes / no) from _____ ft to _____ ft

type _____ amount _____

Well developed? (yes / no)

Explain _____

(pumped, airlifted, bailed) for _____ hrs at _____ GPM.

Pump installed? (yes / no) Date ____ / ____ / ____

Installer's name _____

Type of pump _____ Depth to intake _____ ft

Pump diameter _____ Rated capacity _____ GPM

Water information Aquifer: ☐ sand / gravel ☐ limestone ☐ sandstone

Main water-supply zone from _____ ft to _____ ft ☐ seepage well

Static water level _____ ft (below / above) GL; ☐ tape ☐ airline ☐ E-line ☐ estimate

Pumping water level _____ ft below GL, ☐ tape ☐ airline ☐ E-line ☐ estimate

At yield of _____ GPM; ☐ orifice ☐ volumetric ☐ estimate

Measurements taken at _____ : _____ (AM / PM) Date ____ / ____ / ____

Water quality test? (yes / no) Date tested ____ / ____ / ____

Tested by _____

Contractor _____

Address _____

Driller _____ Certification no. _____

white copy – **Iowa DNR, Geological Survey Bureau** blue copy – **Well Contractor** pink copy – **Customer** yellow copy – **County Health Officer**

64060 + 64061

Fields of Opportunities

STATE OF IOWA

CHESTER J. CULVER, GOVERNOR
PATTY JUDGE, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
RICHARD A. LEOPOLD, DIRECTOR

01/27/2010

To:
Mr. Dave Low
905 South Lincoln
Lake Mills, Iowa 50450
Phone 641-592-6715

From:
Bob Rowden
Iowa Department of Natural Resources
Iowa Geological Survey
109 Trowbridge Hall
Iowa City, Iowa 52242-1319
Phone 319-335-1575
Fax 319-335-2754

Re: Well location information for Joice City Wells #1 and #2

Mr. Low;

In an effort to update our source water protection reports, I am trying to find accurate locations and pumping rates for Joice City Wells # 1 and #2 (drilled in May 2007). I do have drillers logs for both wells.

I have included an areal photograph of the City of Joice. Please mark the location of wells #1 and #2 on the image and mail it back to me.

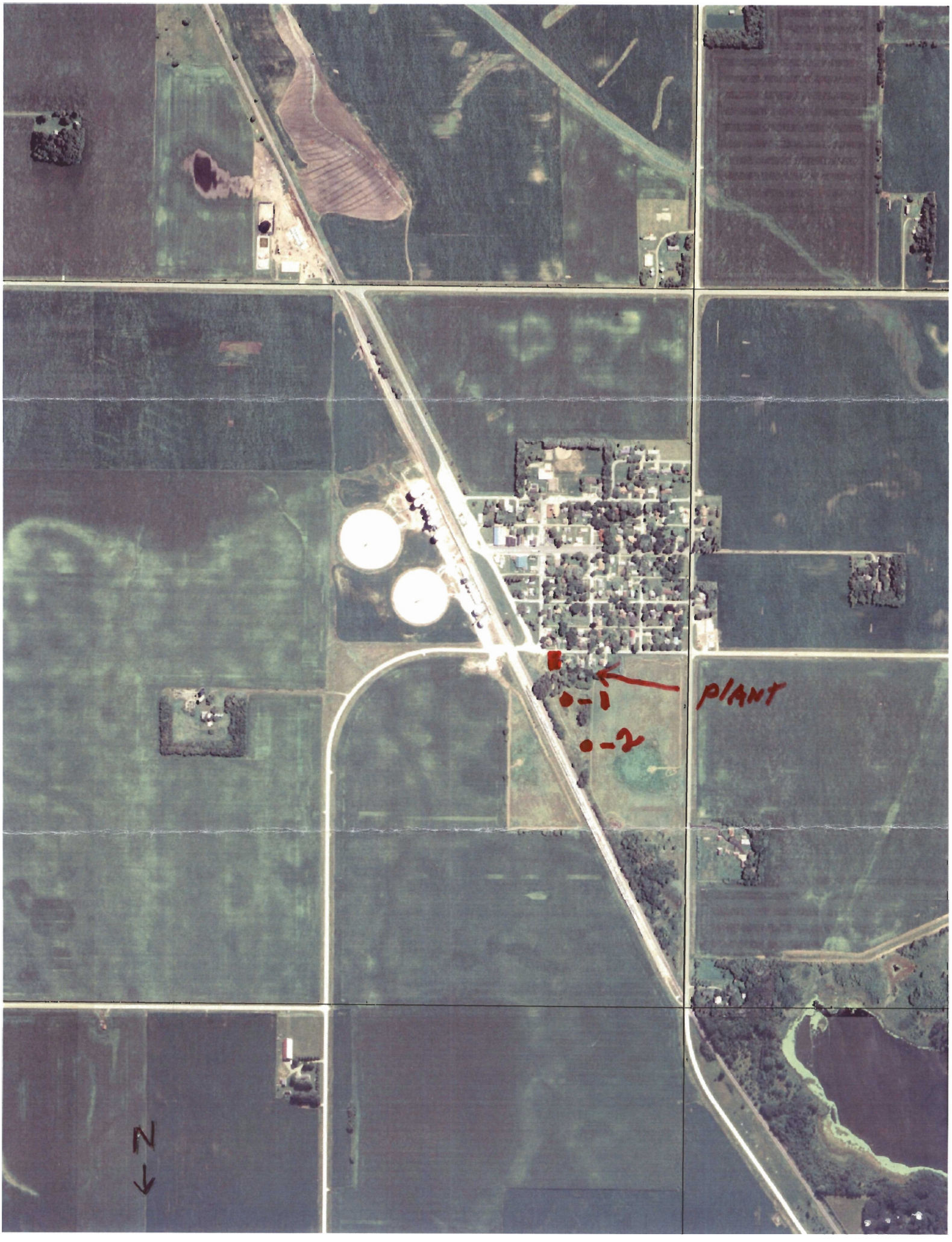
For pumping rates, I will use 100 gpm for each well, alternating the wells, and assume an average total of about 10,000 gpd, as we discussed on the phone on 01/27/2010. If you have any additional information that you feel would be useful, please also send that along.

After we have the information, we will put the information and drillers log online in GEOSAM, and after a source water protection report is completed, the City of Joice will receive a copy of it.

Thanks much for your help,

Bob Rowden

#1 WELL 300' FROM PLANT
#2 " 500' " "


PLANT
-1
-2
N