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

WELL RECORD 75309

Permit No. 2012-145W

Site identification

Property Owner City of Elgin Well Number 4
Address 212 Main St. Elgin, IA 52141
Tenant
Well Depth 682 ft Date completed 10 / 02 / 12

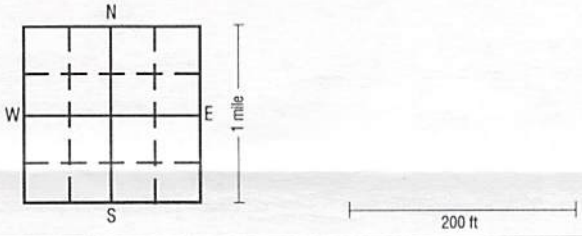
Location

County Fayette

____ 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
				See Attached Drilling Log

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

17.5 inch from 0 ft to 30 ft
13 inch from 30 ft to 480 ft

hole size continued
7 7/8 inch from 480 ft to 682 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)
14"		0	30	31
8"		30	480'	450

Perforated or slotted casing? (yes / no)

Perforated / slotted from ____ ft to ____ ft
Perforated / slotted from ____ ft to ____ ft

Casing grouted? (yes / no) Placement method tremic

Type	Depth Top	Depth bottom	Amount (vol/wt)
Cement	0.0	480	248 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 Airlifted between 206.5' - 316'
(pumped, airlifted, bailed) for ____ hrs at 1-7.5 GPM.

Pump installed? (yes / no) Date 11 / 13 / 12

Installer's name Lloyd Wurzer
Type of pump Gaulds 22542S-7 Depth to intake 260 ft
Pump diameter 6" Rated capacity 300 GPM

Water information

Aquifer: ☐ sand / gravel ☑ limestone ☐ sandstone
Main water-supply zone from 480 ft to 682 ft ☐ seepage well
Static water level 97' ft (below / above) GL; ☐ tape ☑ airline ☐ E-line ☐ estimate
Pumping water level 204 ft below GL; ☐ tape ☑ airline ☐ E-line ☐ estimate
At yield of 302 GPM; ☑ orifice ☐ volumetric ☐ estimate
Measurements taken at 3:45 (AM / PM) Date 10 / 17 / 12

Water quality test? (yes / no) Date tested 10 / 18 / 12

Tested by State Hygienic Lab.

Contractor Cahoy Pump Service, Inc.
Address 24568 150th St.
Driller Jeff Joslyn Certification no. 333

RECEIVED
MAR 22 2013
By

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

75309

DRILLER'S LOG

CLIENT: City of Elgin, IA

WELL: 4

DATE STARTED: 05/10/12

DATE COMPLETED: 10/02/12

RECEIVED
NOV 16 2012
By

ROD#	LENGTH	DEPTH	FORMATION DESCRIPTION	DEPTH STARTED	DEPTH ENDED
1	20'	26.5'	Dark brown silty clay	0.0	1.5
			Medium brown weathered limestone	1.5	13.0
			Medium brown limestone	13.0	17.0
			Gray brown limestone	17.0	
2	20'	46.5'			
3	20'	66.5'			
4	20'	86.5'			
5	20'	106.5'			
6	20'	126.5'	***Airlifted 1GPM***	***206.5***	
7	20'	146.5'	Fracture 5 GPM	209.0	209.0
8	20'	166.5'	***Airlifted 5 GPM***	***226.5***	
9	20'	186.5'	Light brown dolomite rock becomes less hard	285.0	315.0
10	20'	206.5'	***Airlifted 7.5 GPM***	***306***	
11	20'	226.5'	Medium brown dolomite hard	315.0	320.0
12	20'	246.5'	Olive green sandy dolomite	320.0	325.0
13	20'	266.5'	***Airlifted 7.5 GPM***	***326.5***	
14	20'	286.5'	Brown dolomite	325.0	330.0
15	20'	306.5'	Gray shale	330.0	331.0
16	20'	326.5'	Brown dolomite	331.0	351.0
17	20'	346.5'	Olive green shale	351.0	362.0
18	20'	366.5'	***Airlifted 7.5 GPM***	***366***	
19	20'	386.5'	Brown dolomite	362.0	367.0
			Gray dolomite hard	367.0	386.5
			Green shale	404.0	410.0
		Glenwood	Brown Sandstone with shale	410.0	444.0
		St. Peter	Shaley Limeston	444.0	462.0
		Prairie du Chien	Gray brown limestone	462.0	682.0

I. BACKGROUND

The City of Elgin (Elgin) is located in Fayette County. Elgin owns and operates the water system in the City.

Elgin is undertaking a water system improvements project, namely Elgin Water System Improvements - 2011. Part of the improvements project is the construction of a new municipal well, Well #4.

This Well Water Pollution Prevention Plan (WWPPP) was designed using good engineering practices and as required by the National Pollutant Discharge Elimination System (NPDES) General Permit No.6. All requirements of General Permit No. 6 shall be met as part of this WWPPP and construction project. A copy of General Permit No. 6 is provided in **Appendix A**. All provisions contained therein shall be met by the Contractor.

II. SITE INFORMATION

A. Existing Well Site Information

The proposed Well #4 site is located in Elgin, IA. The site is located on the northeast corner of the western most intersection between Sunset Street and Scenic Heights Drive.

The site is approximately 0.44 acres with 170 linear feet of frontage on Sunset Street and 200 linear feet of frontage on Scenic Heights Drive. The property and areas adjacent to it drain from southeast to northwest toward Scenic Heights Drive.

The soil type for the well site and the drainage course to Otter Creek consists of Nordness silt loam, 5-14% slopes. Map and soil information from the USDA soil survey is provided in **Appendix B** of this WWPPP.

B. Existing Runoff Water Quality

No data is available for the proposed well and well site.

C. Surface Waters on the Well Site

The well site contains no surface waters, nor are there surface waters directly adjacent to the well site.

D. Receiving Water

Received - 04/12/2013