67030

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

WELL RECORD

Permit No. 2009-031W
PWSID #3405012

Site identification

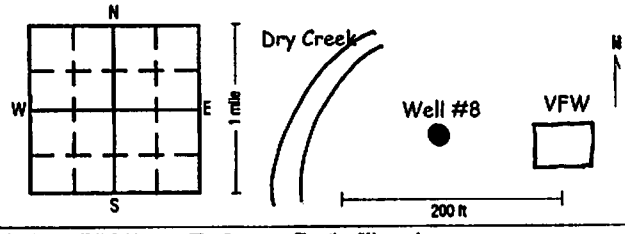
Property Owner City of Charles City Well Number 8
Address 105 Milwaukee Mall
Tenant Water Department
Well Depth 230 ft Date completed 4 / 3 / 09

Location

County Floyd

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

NE 1/4 of the NE 1/4 of the NW 1/4 of Sec 1 TWP 95 RNG 16 E/W
43.07922N - 92.67514W
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	3			Top Soil
3	43			Med. Sand
43	58			Coarse Sand
58	95	Blue		Clay
95	102			Med. sand w/cobbles
102	110			Coarse sand w. boulders
110	137	Blue	Hard	Shale
137	151	Brown	Hard	Limestone
151	172	Brown	Soften	Limestone
172	181	Gray	Hard	Limestone
181	185	Gray	Hard	Limestone
185	189	Gray	Hard	Limesone
189	192	Brown	Hard	Limestone
192	199	Brown	Hard	Limestone w/shale streaks
199	202	Brown	Hard	Limestone w/ tan shell
202	228	Brown	Hard	Limestone
228	230	Gray	Soft	Shale

use additional sheets as needed

Remarks (including depth of lost drilling fluids, materials, or tools)
Note: The well started to flow at 152 foot depth

Well use

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

Drill method

☒ rotary ☐ auger ☒ cable other ____

Hole size

42 inch from 0 ft to 60 ft
35 inch from 60 ft to 112 ft

hole size continued
29 inch from 112 ft to 138 ft
22 inch from 138 ft to 230 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)
36" OD	Steel .500	0	60	60
24" OD	.500 Steel	+8	138	146'

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)
Portland Cement	0	138'	450 sacks

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 6000 gallons acid and airlift development
(pumped, airlifted, bailed) for 12 hrs at 1200 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 140 ft to 230 ft ☐ seepage well
Static water level +4 ft (below / above) GL; ☐ tape ☐ airline ☐ E-line ☐ estimate
Pumping water level 50 ft below GL; ☐ tape ☐ airline ☐ E-line ☐ estimate
At yield of 3000 GPM; ☐ orifice ☐ Meter volumetric ☐ estimate
Measurements taken at ____ : ____ (AM / PM) Date 4 / 13 / 09

Water quality test? (yes / no)

Date tested 4 / 13 / 09
Tested by Keystone Laboratories

Contractor Northway Well and Pump Company
Address 4895 8th Avenue - Marion, Iowa 52302
Driller Mark Evans Certification no. 2392

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