

74935

WELL RECORD

PWTS Permit No. 2007-487W

Iowa Department of Natural Resources - Geological Survey
109 Knowledge Hall, Iowa City, IA 52242-1319 FH (515) 335-1573

PWTS Well No. 5502101

County Permit No.

Site identification

Property Owner Bro - Diesel Other ID 5502101
Address _____
Tenant _____
Well Depth 307 ft Date completed 8/16/07

W2007-604

Drill method

Rotary Auger Cable Other

Hole size

15 7/8 inch from 0 ft to 193 ft
9 7/8 inch from 193 ft to 307 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) Fiberglass adapter (yes/no)

Size (OD/ID)	Type/Wt	Depth top	Depth bottom	Amount (length)
10	A53B	+18"	193' 10 1/2"	195' 4 1/2"

Perforated or slotted casing? (yes/no)

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

Casing grouted? (yes/no)

Placement method pumped

Type	Depth top	Depth bottom	Amount (vol/wt)
<u>Portland cement</u>	<u>0</u>	<u>184</u>	<u>254 bags</u>

Well screen? (yes/no)

Diameter	Slot size	Depth top	Depth bottom	Length	Material
0	0				
0	0				

Bottom capped? (yes/no)

with _____

Seals/Packers (yes/no)

kind _____ depth _____ ft

Gravel packed? (yes/no)

from _____ ft to _____ ft

Well developed? (yes/no)

Explain _____
(pumped, drilled, bailed) for 10 hrs at 700 GPM

Pump installed? (yes/no)

Date 1/1

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

Water information

Applic: sand/gravel limestone sandstone

Main water supply zone from 301 ft to 301 ft seepage well

Static water level 76 ft (below/above) GL: tape airline E-line estimate

Pumping water level 85 ft below GL: tape airline E-line estimate

At yield of 800 GPM: orifice volumetric estimate for _____ hours

Measurements taken at 16:16 (AM/PM) Date 8/16/07

Water quality test? (yes/no)

Date tested 1/1

Contractor Schumacher Well
Address 2201 Stagle Dr. Algona
Driller J. Walker CEP 150 6097

Location

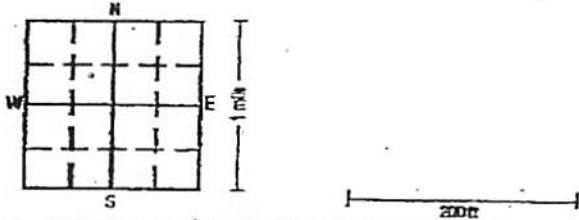
County Kossuth

_____ mi. N and _____ mi. E of intersection of _____ and _____
NW 1/4 of the SE 1/4 of the NW 1/4 of Sec 5 TWP 95 R9E 28 E

GPS Coordinates (NAD83 datum only) decimal degrees:

_____ N. Latitude _____ W. Longitude

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



updated turbid silty hard carbon Emission (if known)

Formation log

From	To	Color	Hardness	Formation description
0	2	black	S	topsoil
2	13	yel	S	clay
13	61	blue	S	clay
61	69	blue	S	shale
69	70	black	S	coal
70	122	gray	S	clay
122	123	white	MH	limestone
123	123	white	S	clay
123	129	red	S	clay
129	144	white	S	clay
144	160	orange red with gray	S	fine sand
160	169	white gray	MH	limestone
169	170	white	S	clay
170	181	red	S	clay
181	186	blue	S	shale

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

RESERVE
AUG 28 2012
By _____

Well use

Domestic Municipal Irrigation
 Livestock Public supply Other
 Test well Triangulation

WELL RECORD

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PWTS Permit No. _____

County Permit No. _____

Department of Natural Resources - Geological Survey
Bridge Rd, Iowa City, IA 52242-1319 PA (515) 335-1575

PWTS Well No. _____

Site identification

Property Owner _____ Other ID _____

Address _____

Tenant _____

Well Depth _____ ft Date completed ____/____/____

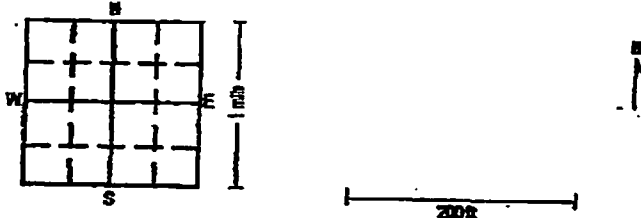
Location _____ County _____

_____ mi. N and _____ mi. E of intersection of _____ and _____
1/4 of Sec. 1/4 of Sec. 1/4 of Sec. TWP. R. E.

GPS Coordinates (NAD83 datum only) decimal degrees:

_____ N Latitude _____ W Longitude

Show exact location of well location (with a dot (•)). Sketch map of well location on property.



updated thick silty low surface elevation (ft above) _____

Formation log

From	To	Color	Hardness	Formation description
186	189	blue	M	shale & limestone
189	200	tan	MH	dolomite
200	211	white	softer	sandstone
211	213	white green	softer	fractured limestone ^{some water}
213	214	green	M	limestone strips shale
214	219	white	MH	dolomite
219	221	orange	MH	dolomite
221	240	white green	softer	sandstone
240	246	tan	MH	limestone
246	259	brown	MH	limestone
259	280	white gray	MH	limestone
280	295	gray	MH-M	limestone strips shale
295	303	white	softer	dolomite
303	307	brim	MH	chert

use additional sheets as needed

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

Well use

- Domestic
- Livestock
- Test well
- Waterpump
- Municipal
- Public supply
- Irrigation
- Commercial
- Manufacturing
- Other _____

Drill method rotary auger cable other _____

Hole size
_____ inch from _____ ft to _____ ft
_____ inch from _____ ft to _____ ft
_____ inch from _____ ft to _____ ft

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

Casing Size (DIN)	Type / Vt	Open shoe (yes/no)		PDC shoe (yes/no)	
		Depth top	Depth bottom	Depth top	Depth bottom

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

Well screen? (yes/no)	Diameter	Slot size	Depth top	Depth bottom	Length	Material

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)
Explor _____
(pumped, stirred, bailed) for _____ hrs at _____ GPM

Pump installed? (yes/no) Date ____/____/____
Installer's name _____
Type of pump _____ Depth to tank _____ ft
Pump diameter _____ Rated capacity _____ GPM

Water information Aquifer: sand/gravel limestone sandstone
Static water supply zone from _____ ft to _____ ft seepage well
Static water level _____ ft (below/above) GL: tape altim E-tim estimate
Pumping water level _____ ft below GL: tape altim E-tim estimate
Aryield of _____ GPM: altim volumetric estimate for _____ hours
Measurements taken at _____ (AM/PM) Date ____/____/____

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

Contractor Schumacher Well
Address 2201 Stage Dr. Algona
Driver J Wolker Cert No. 6087