PWSID # IA3126213

Permit No. 88953

WELL RECORD

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

Site identification

Property Owner Dutton Well Number

Address

Tenant

Well Depth 373 ft Date completed 4 / 2 / 18

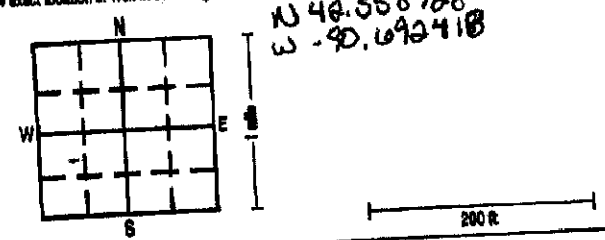
Location

County Dubuque

____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
0	43			limestone w/lg cracks
43	50			limestone w/clays+shale
50	55			limestone
55	80	gry		limestone
80	107	gry, brown		limestone
107	108	blue		shale
108	139	orange		sandstone
139	142	Blue, white		shale, sandstone
142	151	white		sandstone
151	153	green		shale
153	260	tan, brown gry		limestone
260	299	tan, gry, pink		limestone
299	306	gry, green		limestone
306	318	tan, gry		limestone
318	388	gry, pink		limestone
388	373	tan, gry		limestone

use additional sheets as needed

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

well will be test pumped for 24 hours

Well use

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

Drill method

☒ Rotary ☐ auger ☐ cable other

Hole size

28 inch from 0 ft to 2 ft
17 inch from 2 ft to 40 ft

hole size continued

13 inch from 40 ft to 299 ft
10 inch from 299 ft to 373

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

Casing

Size (ID/OD)	Type / Wt	Drive shoe (yes / no)	Depth top	Depth bottom	Pitless adapter (yes / no)	Amount (length)
10" OD	.280 steel w/cement shoe		+2	299		301'

Perforated or slotted casing? (yes / no)

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

Casing grouted? (yes / no) Placement method Halliburton

Type	Depth Top	Depth bottom	Amount (vol/wt)
Neat cement			200 sacks
sand, concrete mix			dyke

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 30 gpm @ 373, 25 gpm @ 280', 15 gpm @ 300'
(pumped, airlifted, bailed) for 1 hrs at 30 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 280 ft to 323 ft ☐ seepage well

Static water level 70 ft (below / above) GL; ☐ tape ☐ airline ☐ E-line ☐ estima

Pumping water level 280 ft below GL; ☐ tape ☐ airline ☐ E-line ☐ estima

At yield of 25 GPM; ☐ orifice ☐ volumetric ☐ estimate

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

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

Tested by ____

Contractor Oasis Well Drilling

Address Manchester, IA 52057

Driller [signature] Certification no. ____

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

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Drilling Log Dutrac Well Project 18181 Perry Road

3-14-18 Move in Drilling Equipment + Set up - (Alfonso)

3-15-18 Started 17" Pilot Hole - then Drilled 28" Hole - 2½ to 3' Below ground level + set 4' 24" Temporary Casing - Then drilled 17" Hole to 32'

3-16-18 Friday Drill 17" Hole to 42' - Soft Clay + 1½" + 2" Fractured limestone Filling Hole when Stop Drilling - Set 33' - 14" Steel Casing the Cleaned Hole to 42' - Cemented Hole Shut From 32' to 42' Let Cement Set up [redacted]

3-19-18 Monday Drill 13" Hole to 53', rock formation started getting solid no large or Fractures found, Filled Hole again with Concrete. 30'-53' with 1½ Yards of Concrete - let cement set up till 3-21-19

3-21-18 Weds Drilled 13" Hole to 63' - With concrete that was pumped previously - Had Scaffold 2/3 of cross - + Loose rock formations from 42 thru 53'. order 3 more yards of Concrete + filled Hole shut again. Let Cement set up [redacted]

3-23-18 Friday Drilled 13" Hole again thru Cement 0-63' then Drilled 13" Hole thru Cement to 205'
Stopped Drilling as Dutrac's sump pump in basement Quit working + where getting S/S surface water flowing into their sump pit. They installed new sump pump in Basement.

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3-26-18 Monday — Started drilling again Finish Drilling to Casing depth of 270' Then Set 272' 6"ID Steel Casing.

3-27-18 Tuesday — Set up & pumped 160 socks neat cement for grouting. Halliburton Method

3-28-18 Wed — Cement down into our 13' Hole settled around 80' from ground level So 40 more Socks of Neat Cement was pump with 5 gallon of water per sock. Cement grout level Still at around 80' after pumping 40 sack so in talked to Lone Lock - engineer of project we determined to let set for a day. Then on Thursday Grout the 80' with 2 yards of Cement-rock-sand mix.

3-29-18 Thursday — On Thursday 3-29-18 Bore hole was filled to ground level. Cement Grout was then let to set up [redacted]

4-1-18 Monday — Started Drilling our 5 7/8" Hole - Finish to Drilling depth of 373' Approximately 30 gpm the well is producing

4-2-18 — Set Test pump in well