WELL RECORD FORM 079207

PWTS No. *or* PWS No. 8300184 | PWTS Permit No. 2009378 | GEOSAM Well No. *(IGS use only)*

Site Identification

Property owner Regional Water | Other ID WL39 - N1

Address 108 US HWY 59 | City Avoca

Tenant Regional Water

Well depth 31 ft | Date completed 12 / 2 / 2010

Location

County Shelby

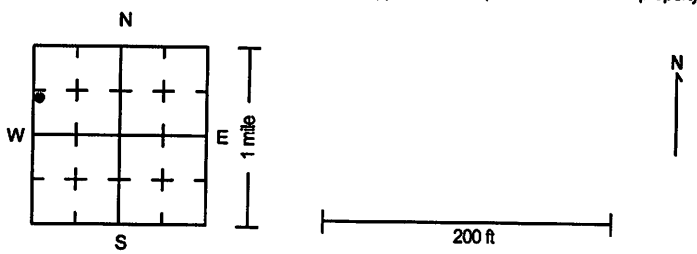
GPS coordinates (NAD83 datum)

41.5163280 Latitude | -95.3462130 Longitude

☑ Decimal Degrees ☐ Degrees, Decimal Minutes ☐ Degrees, Minutes, Seconds

NW 1/4 of the SW 1/4 of the NW 1/4 of Sec 33 TWP 78 RNG 39 E (W)

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



Formation Log

From	To	Color	Hardness	Formation description
0	6	Tan		Clay
6	16	Gray		Fine-medium sand
16	24	Gray		Medium sand w/gravel
24	31	Gray		Medium sand & gravel w/cobbles
				(use additional sheets as needed)

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

Well Use

☐ Domestic ☑ Public supply ☐ Livestock

☐ Heat pump ☐ Commercial ☐ Irrigation

# of borehole(s) ___ ☐ Monitoring ☐ Other ___

Drill Method

☐ Rotary ☐ Auger ☐ Cable ☐ Other Reverse

Hole size

32 inch from 0 ft to ___ ft

___ inch from ___ ft to ___ ft

hole size continued

___ inch from ___ ft to ___ ft

___ inch from ___ ft to ___ ft

Casing or Loop Pipe

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

Size (in)	Material	Depth Top	Depth Bottom	Perforated	Slotted	Screen
8	Pitless Adapter	+14'	+4'	☐	☐	☐ slot size ___
8	Steel Casing	+4	25.5'	☐	☐	☐ slot size ___
16	SS Screen	25.5'	30.5'	☐	☑	☑ slot size 0.100
				☐	☐	☐ slot size ___
				☐	☐	☐ slot size ___

Casing Grout

Placement method Pressure Tremie

Type	Depth Top	Depth Bottom	Amount (vol/wt)
Cement Grout	0	13'	3 cyd
Bentonite Chips	13'	20'	55 bags
☑ Gravel packed variety L.R. AA	20	31	4 tons
☐ Seals/packers			

Pump Installation

Date 7 / 14 / 2011

Type of pump Submersible | Depth to intake 40 ft

Pump diameter 6 in | Rated capacity 75 GPM

Water Information

Date 01 / 30 / 2011

Use + for above GL measurements.

Static Water Level	Pumping Water Level	Yield	Duration
16 ft	28 ft	150 GPM	19.00 hrs

Water level measurement: ☐ Sonic ☐ Tape ☐ Airline ☑ E-line ☐ Estimate

Water yield measurement: ☑ Orifice ☐ Volumetric ☐ Estimate

Main water-supply zone from 26 ft to 31 ft below GL

Well Development

☑ Physical explain: Surge Block, bailer, rawhide pumping, etc.

☐ Chemical explain: ___

Contractor

Company Layne Christensen Company

Address 4601 N. 252nd Street, Valley, NE 68064

Driller Mark Leslie | Certification no. 3684

IGS IIHR Hydroscience & Engineering

Mail form to **Iowa Geological Survey: 100 Oakdale IGS, Iowa City, IA 52242-1304**

Or click here to e-mail form to: IIHR-IGS-WellRecords@uiowa.edu

The University of Iowa

Layne Christensen Company
3150 SE Gateway Drive, Suite B
Grimes, IA 50111
(515) 986-3462 / 3474 Fax

SUBMERSIBLE PUMP INSTALLATION REPORT

JOB NAME: Regional Water
Address: 108 HWY 59
City, State: Avoca, IA 51521

DATE PROJECT COMPLETED: 07/14/11

PUMP NO: D116W02 ☑ New Pump ☐ Repair
Pump Trouble: New pump installation

PUMP SIZE	Diameter	Lengths
Discharge	☐ Above ☑ Below	
Column	2" PVC ☑ Screw ☐ Flange	1 x 20' 1 x 7'
Pitless Unit	8"	9' 7"

Column setting to bowl: 37.5 ft.

BOWL ASSEMBLY:
Manufacturer: Grundfos
Diameter: 6" Shaft Diameter:
Type: 85S50-3 No. Stages: 3
Bowl Length: 19.5" Bowl Material: SST
Check valve In column: ☑ Yes ☐ No Size: 2" Brz.
Submersible cable size: #10
Special paint, coatings, zinc sleeves, etc: N/A

MOTOR:
Make: Grundfos HP: 5
Speed: 3450 rpm Volts: 230
Diameter: 4" Length: 2'
Serial # P21104-79304509
Amperes: 17.4

MEGGER CHECK:

	On Ground			Installed In Well		
Motor leads						
Cable leads						

WELL:
No: N1 Year Drilled: 2010
Location: Avoca well field next to river
Diameter: 8" x 16" Depth: 44' 3"
Measured from top of 8 " diameter pitless which is 4 feet above ground level
Tape to water: 25'
Airline length: 37' A.L. Material: ¼" Toro
Static Gauge: 12' Static Level: 25'
Pumping Gauge: Pumping Level:
Disch. Pressure: psi when pumping into system at gpm

INSTALLER: D. Hansen
Rig Used: Customer's Rig

PUMP REPAIR

CONDITION OF PUMP WHEN PULLED	NEW PARTS INSTALLED
Column: N/A	Column: 27' - 2" PVC drop pipe 1 - 2" bronze check valve
Bowl: N/A	Bowl: Grundfos 85S50-3 pump end
Motor: N/A	Motor: Grundfos 5-HP, 3/60/230V, 4" motor #10 submersible pump cable
Head: N/A	Head: 8" x 10" Baker Monitor pitless adapter
SHOP/MACHINE WORK:	1. DRAIN PORTS OPEN? ☐ Yes ☑ No 2. CHLORINATE WELL? ☑ Yes ☐ No 3. ALIGN PUMP HEAD WITH DIAL INDICATOR? ☐ Yes ☑ No 4. GROUTED BASE PLATE? ☐ Yes ☑ No 5. PUMP RUNS: ☑ Good ☐ Fair ☐ Bad