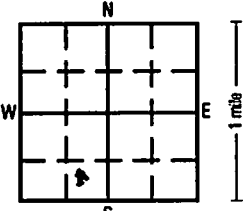


**Site identification**  
Property Owner Backbone State Park  
Address Main Campground Well  
Tenant Strawberry Pt, IA  
Well Depth 235 ft Date completed 02/11/00

**Location** County Delaware  
mi. N and mi. E of intersection of \_\_\_\_\_ and \_\_\_\_\_  
SW 1/4 of the SE 1/4 of the SW 1/4 of Sec 15 TWP 90S R16E  
Show exact location of well in section grid with a dot (•). Sketch map of well location on property.  
  
Elevation (if known) \_\_\_\_\_

| Formation log |     |       |          |                       |
|---------------|-----|-------|----------|-----------------------|
| From          | To  | Color | Hardness | Formation description |
| 0             | 25  | Br    |          | Clay                  |
| 25            | 33  | Bl    |          | Clay                  |
| 33            | 52  | Br    |          | Clay                  |
| 52            | 79  |       |          | limestone             |
| 79            | 87  | Red   |          | limestone             |
| 87            | 218 |       |          | limestone             |
| 218           | 233 | Gr    |          | limestone             |
| 233           | 235 |       |          | Shale                 |

**Remarks** (including depth of lost drilling fluids, materials, or tools)  
Test pumping Record attached  
**Well use**  
☐ Domestic ☐ Municipal ☐ Commercial  
☐ Livestock ☐ Public supply ☐ Monitoring  
☐ Test well ☐ Irrigation ☒ Other Campground

**Drill method** ☒ rotary ☐ auger ☐ cable ☐ other \_\_\_\_\_  
**Hole size**  
14 1/2 inch from 0 ft to 54 ft  
13 inch from 54 ft to 140 ft  
hole size continued  
8 inch from 140 ft to 235 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)  
8 5/8" Steel 12' 140' 142'

**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)  
Cement 0' 140' 117 SKS

**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 developed - 60 gpm @ 235'  
(pumped, airlifted, bailed) for \_\_\_\_\_ hrs at \_\_\_\_\_ 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 155 ft to \_\_\_\_\_ ft ☐ seepage well  
Static water level 105 ft (below / above) GL; ☐ tape ☐ airline ☐ E-line ☐ estimate  
Pumping water level 110 ft below GL; ☐ tape ☐ airline ☐ E-line ☐ estimate  
At yield of 55 GPM; ☐ orifice ☐ volumetric ☐ estimate  
Measurements taken at \_\_\_\_\_ (AM / PM) Date \_\_\_\_/\_\_\_\_/\_\_\_\_

**Water quality test?** (yes / no) \_\_\_\_\_ Date tested \_\_\_\_/\_\_\_\_/\_\_\_\_  
Tested by \_\_\_\_\_

Contractor Jim Baertling / Strawberry Well  
Address Ridgelysburg, IA  
Driller Jim Baertling Certification no. 40121

## TEST PUMPING REPORT

**JOB NAME** Backbone  
**DATE:** 2/15-16/2000

**DEPTH:** 235'  
**PUMP:** 3 HP 50GS30  
 15.7 AMPS, Cased 2'3" above ground  
 measuring point

| TIME           | WATER<br>LEVEL<br>IN WELL | GPM | HEAD IN<br>INCHES | CHARACTER<br>OF WATER     |
|----------------|---------------------------|-----|-------------------|---------------------------|
| <b>2/15/00</b> | 107'8"                    |     |                   |                           |
| 10:45 AM.      | 109'4"                    | 55  |                   | Dirty                     |
| 10:46          | 109'4"                    | 55  |                   | Clearing                  |
| 10:47          | 109'4"                    | 55  |                   | Dirty - Ph level of 6     |
| 10:48          | 109'4½"                   | 55  |                   | Dirty                     |
| 10:49          | 109'4½"                   | 55  |                   | Dirty                     |
| 10:50          | 109'4½"                   | 55  |                   | Dirty                     |
| 10:51          | 109'5"                    | 55  |                   | Dirty                     |
| 10:52          | 109'5"                    | 55  |                   | Clearing, but still dirty |
| 10:53          | 109'6"                    | 55  |                   | Clearing                  |
| 10:54          | 109'7"                    | 55  |                   | Clearing                  |
| 10:55          | 109'7"                    | 55  |                   | Clearing                  |
| 11:00          | 109'7"                    | 55  |                   | Clearing                  |
| 11:05          | 109'7"                    | 55  |                   | Clearing                  |
| 11:10          | 109'7"                    | 55  |                   | Clearing                  |
| 11:15          | 109'7"                    | 55  |                   | Clear, but for chlorine   |
| 11:30          | 109'7"                    | 55  |                   | Clear                     |
| 11:45          | 109'7½"                   | 55  |                   | Clear                     |
| 12:00 P.M.     | 109'8"                    | 55  |                   | Clear                     |
| 12:15          | 109'8"                    | 55  |                   | Clear                     |
| 12:30          | 109'8"                    | 55  |                   | Clear                     |
| 12:45          | 109'9"                    | 55  |                   | Clear, Ph level 6         |
| 1:45           | 109'11"                   | 55  |                   | Clear                     |
| 2:45           | 110'                      | 55  |                   | Clear                     |
| 3:45           | 110'                      | 55  |                   | Clear                     |
| 4:45           | 110'1"                    | 55  |                   | Clear                     |
| 5:45           | 110'2"                    | 55  |                   | Clear                     |
| 6:45           | 110'3"                    | 55  |                   | Clear                     |
| 7:45           | 110'4"                    | 55  |                   | Clear                     |
| 8:45           | 110'4½"                   | 55  |                   | Clear                     |
| 9:45           | 110'5½"                   | 55  |                   | Clear                     |
| 10:45          | 110'6½"                   | 55  |                   | Clear                     |
| 11:45          | 110'7"                    | 55  |                   | Clear                     |
| <b>2/16/00</b> |                           |     |                   |                           |
| 12:45 A.M.     | 110'7"                    | 55  |                   | Clear                     |
| 1:45           | 110'7½"                   | 55  |                   | Clear                     |
| 2:45           | 110'7½"                   | 55  |                   | Clear                     |
| 3:45           | 110'8"                    | 55  |                   | Clear                     |