

PAZ Vahop

05N 25E 26 CCDC

# MONTANA WELL LOG REPORT

Form No. 603 R2-04

Well ID# \_\_\_\_\_

This log reports the activities of a licensed Montana well driller and serves as the official record of work done within the borehole and casing and describes the amount of water encountered. **This form is to be completed by the driller and filed with MBMG within 60 days of completion of the work.** Acquiring Water Rights is the well owner's responsibility and is not accomplished by the filing of this report.

Well log information is stored in the Groundwater Information Center at the Montana Bureau of Mines and Geology (Butte) and water right information is stored in the Water Rights Bureau records (Helena).

For fields that are not applicable, enter NA. **Optional fields have a grayed background.** Record additional information in the REMARKS section.

### 1. WELL OWNER:

Name Pat & Julie Vaughn  
Mailing address 369 Border Rd.  
Shepherd, MT 59079

### 2. WELL LOCATION:

List  $\frac{1}{4}$  from smallest to largest  
SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  SW  $\frac{1}{4}$ , Section 26  
Township 50 N/S Range 25 E/W County Musselshell  
Lot \_\_\_\_\_ Tract/Block \_\_\_\_\_ Subdivision Name \_\_\_\_\_  
Well Address 369 Border Rd Shepherd, MT  
GPS  Yes  No  
Latitude 46° 09' 46" Longitude 107° 34' 20"  
Error as reported by GPS locator ( $\pm$  feet) 26  
Horizontal datum  NAD27  WGS84

### 3. PROPOSED USE:

Domestic  Stock  Irrigation  
 Public water supply  Monitoring Well  Other:

### 4. TYPE OF WORK:

New well  Deepen existing well  Abandon existing well  
Method:  Cable  Rotary  Other:

### 5. WELL CONSTRUCTION DETAILS:

**Borehole:**  
Dia. 10 in. from 0 ft. to 18 ft.  
Dia. 6 in. from 18 ft. to 583 ft.  
Dia. \_\_\_\_\_ in. from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

**Casing:**  
Steel: Wall thickness .250  Threaded  Welded  
Dia. 6 5/8 in. from 18 6" ft. to 18 6" ft.  
Dia. \_\_\_\_\_ in. from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

Plastic: Pressure Rating SPR 17 lbs.  Threaded  Welded  
Dia. 4 1/2 in. from 10 ft. to 543 ft.

**Perforations/Slotted Pipe:**  
Type of perforator used Saw slots  
Size of perforations/slots 1/2 in. by 6 in.  
\_\_\_\_\_ no. of perforations/slots from 543 ft. to 583 ft.  
\_\_\_\_\_ no. of perforations/slots from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

**Screens:**  Yes  No  
Material \_\_\_\_\_  
Dia. \_\_\_\_\_ Slot size \_\_\_\_\_ from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.  
Dia. \_\_\_\_\_ Slot size \_\_\_\_\_ from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

**Gravel Packed:**  Yes  No  
Size of gravel \_\_\_\_\_  
Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

**Packer:**  Yes  No  
Type Rubber Depth(s) 240 540

**Grout:** Material used #8 portland cement  
Depth from 0 ft. to 18 ft. OR  Continuous feed

### 6. WELL TEST DATA:

A well test is required for all wells. (See details on well log report cover.)

Static water level 148 ft. below top of casing or  
 Closed-in artesian pressure \_\_\_\_\_ psi.

How was test flow measured:  
bucket/stopwatch weir, flume, flowmeter, etc \_\_\_\_\_

Yellowstone Controlled Groundwater Area - Water Temperature \_\_\_\_\_ °F

AQUIFER TEST DATA FORM ATTACHED

### Test - 1 hour minimum

Drawdown is the amount water level is lowered below static level.  
All depth measurements shall be from the top of the well casing.  
Time of recovery is hours/minutes since pumping stopped.

**Air test\***  
12 gpm with drill stem set at 582 ft. for 2 hours  
Time of recovery \_\_\_\_\_ hrs/min. Recovery water level \_\_\_\_\_ ft.

**OR Baller test\*** 2 Hr 10 min 148 ft  
\_\_\_\_\_ gpm with \_\_\_\_\_ ft. of drawdown after \_\_\_\_\_ hours  
Time of recovery \_\_\_\_\_ hrs/min. Recovery water level \_\_\_\_\_ ft.

**OR Pump test\***  
Depth pump set for test \_\_\_\_\_ ft.  
\_\_\_\_\_ gpm pump rate with \_\_\_\_\_ ft. of drawdown after \_\_\_\_\_ hrs pumping  
Time of recovery \_\_\_\_\_ hrs/min. Recovery water level \_\_\_\_\_ ft.

**OR Flowing Artesian\***  
\_\_\_\_\_ gpm for \_\_\_\_\_ hours  
Flow controlled by \_\_\_\_\_

\*During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.

### 7. WELL LOG:

Depth, Feet		Material:
From	To	color/rock and type/descriptor (example: blue/shale/hard, or brown/gravel/water, or brown/sand/heaving)
0	1	Topsoil
1	6	Sandy tan clay
6	7	Yellow clay
7	11	Shale
11	20	Fine Brown Sandstone
20	21	Shale
21	39	Gray / tan / Slitstone
39	37	Blue shale
37	48	Damp Fine Gray Sandstone
48	50	Dark shale
50	59	Damp Bluish Gray Fine grain Sandstone
59	55	Black shale
55	56	Gray Slitstone
56	59	Blackish Slitstone
59	64	Gray Slitstone
64	80	Damp Fine Sandstone GRAY
80	93	Black / Gray Slitstone
93	105	Fine Sandstone / GRAY

ADDITIONAL SHEETS ATTACHED

8. DATE WELL COMPLETED: 10-3-07

### 9. REMARKS:

RECEIVED

OCT 23 2007

### 10. DRILLER/CONTRACTOR'S CERTIFICATION:

All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Name, firm, or corporation (print) A-1 Drilling

Address P.O. Box 337, Laurel, MT

Signature [Signature]

Date 10-3-07 License no. MTW0532

PAT & Julie Vauk

369 Bonden Rd.

Shepherd, MT 59019

- 105-125 GRAY Siltstone  
125-129 Damp Gray Fine Sandstone  
126-134 Greenish Gray Siltstone  
134-138 Damp Gray / Brown tint / Sandstone  
138-150 Greenish / Gray / Siltstone  
150-200 Damp / Fine / Sandstone / with Black  
Siltstone lens  $\frac{1}{2}$ " to 3" thick  
200-215 White / Soft / Sandstone  
215-221 Siltstone  
221-271 Sandstone / Fine / Gray with Siltstone  
lens / Greenish  
271-275 Green Siltstone  
200' = 2 GPM = H<sub>2</sub>O  
275-277 Sandstone / Gray / Hard  
277-308 Greenish / White / Siltstone  
308-315 Blue / Black Shale  
315-333 Salt / Pepper Sandstone Dry  
333-335 Fine / Green / Sandstone  
335-343 Greenish siltstone with Fine  
Sandstone lens  
343-345 Black Siltstone  
345-348 Fine Green Sandstone  
348-351 Blue Shale

Pat & Julie Vaughn

369 Borden Rd.

Shepherd, MT. 59079

- 351-364 Green Super Fine sandstone  
364-384 GRAY shale  
384-395 Siltstone / Green  
395-404 Salt / Pepper / Sandstone  
404-410 Black shale  
410-421 White / Black / Fine / Sandstone  
421-433 Green / Gray / Siltstone  
433-457 Blackish / Fine / Sandstone  
457-460 Black Siltstone  
460-461 Fine / White / Sandstone  
461-465 Black Siltstone with Blue clay  
465-470 Green Siltstone with white clay  
470-475 Soft Fine white / Fractured / Sandstone  
475-480 Bluish Siltstone with white clays  
480-481 Fine / Sandstone  
481-494 Greenish / Black Siltstone  
494-499 Fine Greenish Sandstone  
499-512 Black Siltstone  
512-538 Greenish siltstone with Black shale  
538-580 Salt / Pepper Sandstone  
H<sub>2</sub>O = 12 cpm at 583  
580-583 Black Shale