**WATER WELL LOG**

Owner: Leif Amundson  
Address: Joplin, Montana

Driller: Ernest W. Peterson  
Address: Cut Bank, Montana

Date Started: 10-13-61  
Date Completed: 10-18-61

Location: Sec. 21  
T. 33 N.  
R. 7 E.  

<table>
<thead>
<tr>
<th>Type of well</th>
<th>Drilled</th>
<th>Equipment used</th>
<th>Rotary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>(Aug., driven, bored, or drilled)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Water use</th>
<th>Domestic</th>
<th>Municipal</th>
<th>Stock</th>
<th>Irrigation</th>
<th>Industrial</th>
<th>Drainage</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Casing:</th>
<th>0 ft. to 232 ft.</th>
<th>Type</th>
<th>galv.</th>
<th>Size</th>
<th>4 in. O.D.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Casing:</th>
<th></th>
<th>Type</th>
<th></th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Perforated or Screened:</th>
<th>186 ft. to 232 ft.</th>
<th>Type</th>
<th></th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Type of screen or perforations: 1/8" x 6" Torch perforated

Static Water level, for non-flowing well: 147 feet.

Shut-in pressure, for flowing well: __________ lb./sq. in. on: (date)

Pumping water level: 210 feet at 6 gal. per min.

How tested: Air and bailer

Length of test: 3 hours

Remarks: (Gravel packing, cementing, packers, type of shut-off, depth of shut-off)

Gravel packed

(over)
<table>
<thead>
<tr>
<th>Depth, feet</th>
<th>Description of Material Drilled</th>
</tr>
</thead>
<tbody>
<tr>
<td>From 0 to 30</td>
<td>sandy clay, some boulders</td>
</tr>
<tr>
<td>From 30 to 31</td>
<td>sand rocks</td>
</tr>
<tr>
<td>From 31 to 90</td>
<td>yellow clay</td>
</tr>
<tr>
<td>From 90 to 150</td>
<td>sand rock</td>
</tr>
<tr>
<td>From 150 to 212</td>
<td>blue clay</td>
</tr>
<tr>
<td>From 212 to 226</td>
<td>sand rock</td>
</tr>
<tr>
<td>From 226 to 232</td>
<td>shale</td>
</tr>
</tbody>
</table>
**WATER WELL LOG**

- **Owner:** L. N. Amundson  
- **Address:** Joplin, Mont.
- **Driller:** Unknown  
- **Address:**
- **Date Started:**  
- **Date Completed:** 1911
- **Location:** Sec. 21 T. 33 R. 7 1/4 sec.

<table>
<thead>
<tr>
<th>Type of well</th>
<th>Drilled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment used</td>
<td>Drill</td>
</tr>
<tr>
<td>(Aug., driven, bored, or drilled)</td>
<td>(Rhum, drill, rotor, etc.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Water use</th>
<th>Domestic</th>
<th>Municipal</th>
<th>Stock</th>
<th>Irrigation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Casing:</th>
<th>ft. to</th>
<th>ft.</th>
<th>Type</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Perforated or Screened:</th>
<th>ft. to ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of screen or perforations</th>
<th>no screen</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Static Water level, for non-flowing well:</th>
<th>feet</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Shut-in pressure, for flowing well:</th>
<th>none lb./sq. in. on:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(date)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pumping water level:</th>
<th>150 feet at 3 gal. per min.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How tested:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Length of test:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Remarks: (Gravel packing, cementing, packers, type of shut-off, depth of shut-off) | |
|--------------------------------------------------------------------------------------------|
|                                                                                           |

(over)
Declaration of Vested Groundwater Rights
(Under Chapter 237, Montana Session Laws, 1961)

1. E. K. Pepple
   (Name of Appropriator)
   of
   (Address)
   State of
   Montana

   County of
   (Town)

   have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:

   2. The beneficial use on which the claim is based: Household

   3. Date or approximate date of earliest beneficial use; and how continuous the use has been: 1915

   4. The amount of groundwater claimed (in miner's inches or gallons per minute): 5 gal. Per min.

   5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof: Same for house & yard

   6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal: Pump

   7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater: Estimate 1915

   8. The depth of water table: 200 ft.

   9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater: 200 ft. of steel pipe with 10 ft. of grout and

   10. The estimated amount of groundwater withdrawn each year: 50,000 gal.

   11. The log of formations encountered in the drilling of each well if available: None available

   12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record: None available

   Signature of Owner: E. K. Pepple
   Date: 12-20-1963

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; triplicate to the Montana Bureau of Mines and Geology, and quadruplicate for the Appropriator.
<table>
<thead>
<tr>
<th>Sec.</th>
<th>Name of Appropriator</th>
<th>Type of Form</th>
<th>County File No.</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Hagg Marvin L.</td>
<td>CW H</td>
<td>88173</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td>88571</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Fritz, Raymond</td>
<td></td>
<td>88512</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>CW 2</td>
<td>90596</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td>CW 2</td>
<td>89313</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Fritz, Leonard</td>
<td>JW 2</td>
<td>82915</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td>JW H</td>
<td>82265</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td>JW 2</td>
<td>87553</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td>82649</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td>89403</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Smith, Wilma</td>
<td></td>
<td>87432</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Smith, A. &amp; Marie Jane</td>
<td>JW H</td>
<td>83465</td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>Standish, Fred</td>
<td>CW 2</td>
<td>82480</td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>Hamme, Lawrence</td>
<td>JW H</td>
<td>83980</td>
<td></td>
</tr>
</tbody>
</table>
Declaration of Vested Groundwater Rights
(Under Chapter 237, Montana Session Laws, 1961)

Marvin L. Haag

(Name of Appropriator)

of

County of Liberty

State of Montana

Galata

(Address)

(Town)

have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:

2. The beneficial use on which the claim is based: household; irrigation; livestock

3. Date or approximate date of earliest beneficial use, and how continuous the use has been: 1927; daily use since date hereinbefore mentioned

4. The amount of groundwater claimed (in miner's inches or gallons per minute): 2 gallons per minute

5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof: 1 acre within 200 feet of the well

6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal: see map as to location of well; water is withdrawn by means of jet pump

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater: Commencement and completion of this well took place in 1965; exact months are unknown to appropriator

8. The depth of water table: 20 feet

9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater: dug wells; 6 feet in diameter; withdrawal is by jet pump

10. The estimated amount of groundwater withdrawn each year: 168,000 gallons

11. The log of formations encountered in the drilling of each well if available: None made

12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record: None

Signature of Owner:

Marvin L. Haag

Date: August 5, 1963

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; triplicate to the Montana Bureau of Mines and Geology, and quadruplicate for the Appropriator.
Declaration of Vested Groundwater Rights
(Under Chapter 237, Montana Session Laws, 1961)

1. Marvin L. Haag of Galata
   (Name of Appropriator) (Address) (Town)

   County of Liberty State of Montana

   have appropriated groundwater according to the Montana laws in effect prior to January 1, 1968, as follows:

   2. The beneficial use on which the claim is based:
      household:  livestock

   3. Date or approximate date of earliest beneficial use; and how continuous the use has been: 1926; daily use since date hereinbefore mentioned.

   4. The amount of groundwater claimed (in mine's inches or gallons per minute): 2 gallons per minute

   5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof:
      acre within 200 feet of the well

   6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal:
      see map as to location of well
      water is withdrawn by means of jet pump

   7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater: commencement and completion of this well took place in 1926; exact months are unknown to appropriator.

   8. The depth of water table: 20 feet

   9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater:
      dug wells; 4 feet in diameter; withdraw if by jet pump

   10. The estimated amount of groundwater withdrawn each year: 168,000 gallons

   11. The log of formations encountered in the drilling of each well if available:
      None made

   12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record:
      None

Signature of Owner

Date: August 6, 1963

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; Triplicate to the Montana Bureau of Mines and Geology, and Quadruplicate for the Appropriator.
### Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

| Appreciation of Groundwater According to the Montana Laws in Effect Prior to January 1, 1962, as Follows:
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2. The beneficial use on which the claim is based:</strong> water livestock</td>
</tr>
<tr>
<td><strong>3. Date or approximate date of earliest beneficial use; and how continuous the use has been:</strong> 1962; daily use</td>
</tr>
<tr>
<td><strong>4. The amount of groundwater claimed (in miner's inches or gallons per minute):</strong> 2 gallons per minute</td>
</tr>
<tr>
<td><strong>5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof:</strong> not applicable</td>
</tr>
<tr>
<td><strong>6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal:</strong> water is withdrawn by windmill</td>
</tr>
<tr>
<td><strong>7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater:</strong> commencement and completion of this well was in 1962</td>
</tr>
<tr>
<td><strong>8. The depth of water table:</strong> unknown</td>
</tr>
<tr>
<td><strong>9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater:</strong> drilled well; 6 inch pipe; water in withdrawn by windmill</td>
</tr>
<tr>
<td><strong>10. The estimated amount of groundwater withdrawn each year:</strong> 168,000 gallons</td>
</tr>
<tr>
<td><strong>11. The log of formations encountered in the drilling of each well if available:</strong> none made</td>
</tr>
<tr>
<td><strong>12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record:</strong> none</td>
</tr>
</tbody>
</table>

---

Signature of Owner: [Signature]

Date: August 5, 1963

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; triplicate to the Montana Bureau of Mines and Geology, and quadruplicate for the Appropriator.
STATE OF MONTANA,
County of Liberty,

Filed, Aug 6 1962
at 10 o'clock A.M.

Alma Owens
County Clerk

By

Fee $2.00
STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

Declaration of Vested Groundwater Rights
(Under Chapter 237, Montana Session Laws, 1961)

1. **Raymond Fritz**
   - Name of Appropriate
   - Address
   - Town
   - County of
   - State of
   - Appropriate to the Montana laws in effect prior to January 1, 1962, as follows:

<table>
<thead>
<tr>
<th>N</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. The beneficial use on which the claim is based: **Irrigation**

3. Date or approximate date of earliest beneficial use; and how continuous the use has been: **1950**

4. The amount of groundwater claimed (in miner's inches or gallons per minute): **10 gal per min**

5. If used for irrigation, give the acreage and description of thelands to which water has been applied and name of the owner thereof:

6. The means of withdrawing such water from the ground, and the location of each well or other means of withdrawal:

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater:

8. The depth of water table: **100 to 200 ft**

9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater:

10. The estimated amount of groundwater withdrawn each year: **36,500**

11. The log of formations encountered in the drilling of each well if available: **Not available**

12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record:

Signature of Owner: **Raymond Fritz**

Date: **Dec 16, 1962**

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; triplicate to the Montana Bureau of Mines and Geology; and quadruplicate for the Appropriator.
### Notice of Completion of Groundwater Appropriation by Means of Well

#### DEVELED AFTER JANUARY 1, 1962

(Under Chapter 237 Montana Session Laws, 1961, as amended)

**Owner:** Ray Fritz  
**Address:** Chester, Montana  
**Driller:** None  
**Address:** Havre, Montana

**Date of Notice of appropriation of groundwater:**  
**Date well started:** Sept 4, 1970  
**Date completed:** Sept 15, 1970

**Type of well:** Drilled  
**Equipment used:** Cable Tool Rig (Dug, driven, bored or drilled)

**Water use:**  
- Domestic  
- Municipal  
- Stock  
- Irrigation  
- Industrial  
- Drainage  
- Other

Indicate on the diagram the character and thickness of the different strata met with in drilling, such as soil, clay, shale, gravel, rock or sand, etc. Show depth at which water is encountered, thickness and character of water-bearing strata and height to which the water rises in the well.

<table>
<thead>
<tr>
<th>Size of Drilled Hole</th>
<th>Size and Weight of Cable</th>
<th>From (Ft.)</th>
<th>To (Ft.)</th>
<th>Kinds of Water Comprising Strata Entered to 11/7 Bottom of casing at 177 ft. level. No casing below 177 ft. level. Sandstone left open.</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>6¼ O.D.</td>
<td>159</td>
<td>117</td>
<td>No perforations. Water coming in through bottom of casing at 177 ft. level. No casing below 177 ft. level. Sandstone left open.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>How Tested. Submersible Pump. Length of Test 4 Hours. Remarks: (Gravel packing, cementing, packers, type of shutoff hole: drilled to 9′ diameter to 130 foot level. Casing set on hard sand at 117 ft. level for cemented in.)</td>
</tr>
</tbody>
</table>

**Yield increased to over 80 gpm after hole wasreamed to 9′ diameter.**

Casing from Bottom of Well  
**Sandy Grey Shale**  
**Show exact depth of bottom.**

---

This form to be prepared by driller, and three copies to be filled by the owner with the County Clerk and Recorder in the county in which the well is located, tissue copy to be retained by driller. Please answer all questions. If not applicable, so state, otherwise the form will be returned.

**Driller’s License Number:**  
**Driller’s Signature:**
Notice of Completion of Groundwater Appropriation by Means of Well

(Under Chapter 237, Montana Session Laws, 1961)

Owner: Raymond Fritz
Driller: Orville Jacobsen

Date of Notice of Appropriation of Groundwater
Date well started: 5/2/62
Date completed: 5/7/62

Type of well: Drilled
Equipment Used: Cable tools
(Dug, driven, bored or drilled)

Water Use:
- Domestic
- Municipal
- Stock
- Irrigation

- Industrial
- Drainage
- Other

Indicate on the diagram the character and thickness of the different strata met with in drilling, such as soil, clay, shale, gravel, rock or sand, etc. Show depth at which water is encountered, thickness and character of water-bearing strata and height to which the water rises in the well.

Static Water Level for non-flowing well: 
Shut-in Pressure for flowing well:
Discharge in gal. per min. of flowing well:

Remarks: (Gravel packing, cementing, packers, type of shutoff, location of place of use of groundwater if not at well, and any other pertinent information, including number of acres irrigated, if used for irrigation)

Original to the County Clerk and Recorder; duplicate to the State Engineer; triplicate to the School of Mines and quadruplicate for the Appropriator.

This form must be prepared by driller, and three copies to be filed by the owner with the County Clerk and Recorder in the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.
Form No. 18
8-60

T. 32 R. 4

County Liberty

MONTANA BUREAU OF MINES AND GEOLOGY
Butte, Montana

RECEIVED
AUG 10 1961

WATER WELL LOG

Owner Raymond Fritz Address Chester, Mont.
Driller H. S. Hill Address
Date Started Date Completed 1976
Location: Sec. 12 T. 32 R. 4 E. 1/2 sec. NW SE

Type of well Drilled Equipment used Drill
(Dug, driven, bored, or drilled) (Dug, drill, rotary, other)

Water use: Domestic X Municipal Stock Irrigation
Industrial Drainage Other

Casing: 166 ft. to ft. Type Galvanized Size 6"
Casing: ft. to ft. Type Size
Casing: ft. to ft. Type Size

Perforated or Screened: Ft. to Ft. Ft. to Ft.

Type of screen or perforations

Static Water level, for non-flowing well: feet.
Shut-in pressure, for flowing well: lb./sq. in. on:

Pumping water level feet at gal. per min.

How tested:
Length of test

Remarks: (Gravel packing, cementing, packers, type of shut-off, depth of shut-off)

(over)
This form to be prepared by driller, and three copies to be filed by the owner with the County Clerk and Recorder in the county in which the well is located, last copy to be retained by driller. Please answer all questions. If not applicable, so state, otherwise the form may be returned.

Leonard Fritz

Chester, Montana

May 22, 1972

May 16, 1972

Drilled

Type of well: Drilled

Equipment used: Churn

Water Use: Domestic □ Municipal □ Stock ☐ Irrigation ☐

Industrial □ Drainage □ Other ☐ Garden/Lawn ☐

Describe USE if used for irrigation, industrial, drainage or other. Explain, state number of acres and location or other data (file, well, and addition).

ESTIMATED ANNUAL WITHDRAWAL: 180,000 gallons.

Static water level: 132 ft.

Pumping water level: 128 ft.

at: 195 gallons per minute, measured 20 minutes after pumping began.

Power: Pump: 1 hp.

Remarks: (Gravel packing, cementing, packers, type of shutoff) well made 18 gals per min

gravel pack 60 ft.

INDICATE LOCATION OF WELL AND PLACE OF USE, IF POSSIBLE. EACH SMALL SQUARE REPRESENTS 40 ACRES.

Driller’s Address: Box 677 Shelby, Mont.

Water Well LICENSE NO. 99
STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

Declaration of Vested Groundwater Rights
(Under Chapter 237, Montana Session Laws, 1961)

1. Leonard Fritz
   (Name of Appropriator)
   of Chester
   (Address) (Town)
   County of Liberty, State of Montana
   have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:

2. The beneficial use on which the claim is based
   stock only

3. Date or approximate date of earliest beneficial use; and how continuous the use has been since 1912 and used continuously since

4. The amount of groundwater claimed (in miner’s inches or gallons per minute) 5 gals. per minute

5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof none

6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal electric pump

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater unknown approximated 1912

8. The depth of water table 198 feet goes up to 100

9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater 6-inch 212 feet

10. The estimated amount of groundwater withdrawn each year unknown

11. The log of formations encountered in the drilling of each well if available none

12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record none

Signature of Owner

Date

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; Triplicate to the Montana Bureau of Mines and Geology and Quadruplicate for the Appropriator.
### Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

**State of Montana**

**Administrator of Groundwater Code**

**Office of State Engineer**

#### Declaration of Vested Groundwater Rights

Leonard Fritz

(Name of Appropriator) (Address) (Town)

County of Liberty, State of Montana

I have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:

1. **Leonard Fritz**

2. The beneficial use on which the claim is based: **stock and household**

3. Date or approximate date of earliest beneficial use; and how continuous the use has been: **about 1909 and used continuously since**

4. The amount of groundwater claimed (in miner's inches or gallons per minute): **4 gals. per minute**

5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof: **none**

6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal: **electric pump that replaced windmill**

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater: **unknown approximately 1909**

8. The depth of water table: **70 feet**

9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater: **6 inch hole-198 feet**

10. The estimated amount of groundwater withdrawn each year: **unknown**

11. The log of formations encountered in the drilling of each well if available: **no**

12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record: **none**

**Signature of Owner: Leonard Fritz**

Date: **May 23, 1962**

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; triplicate to the Montana Bureau of Mines and Geology and quadruplicate for the Appropriator.
**Notice of Completion of Groundwater Appropriation by Means of Well**

(Under Chapter 337, Montana Session Laws, 1961)

**Owner:** Leonard Fritz  
**Address:** Chester, Montana

**Driller:** Orville Jacobson  
**Address:** Kremlin, Montana

---

**Date of Notice of Appropriation of Groundwater:** Oct. 4, 1966

**Date well started:** Sept. 26, 1966  
**Completed:** Oct. 4, 1966

---

**Type of Well:** Drilled  
**Equipment Used:** Cable Tools (drill, driven, bored or drilled)

---

**Water Use:** Domestic □  Municipal □  Other □  Irrigation □

---

**Character and Thickness of Groundwater-bearing strata:**

- 70-75 Light Brown Clay
- 75-80 Light Brown Clay
- 80-85 Yellow Sandy Clay
- 85-90 Yellow Sandstone 
- 90-105 Gray Sandy Clay
- 105-120 Light Gray Silt & Sandy Clay
- 120-125 Gray Clay
- 125-150 Gravel & Clay

---

**Remarks:** (Drill, packing, cementing, casing, type of shutoff, location of placing of use of groundwater if not at well, and number of acres irrigated, if used for irrigation)

---

**Driller's License Number:**

**Driller's Signature:**

---

This form to be prepared by driller, and three copies to be filed by the owner with the County Clerk and Recorder in the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; triplicate to the Montana Bureau of Mines and Geology and quadruplicate for the Appropriator.
Under Chapter 237, Montana Session Laws, 1961)

<table>
<thead>
<tr>
<th>Stratum</th>
<th>Depth (Feet)</th>
<th>Water Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gray Clay</td>
<td>0-10</td>
<td>Domestic</td>
</tr>
<tr>
<td>Yellow Sandy Clay</td>
<td>10-20</td>
<td>Stock</td>
</tr>
<tr>
<td>Gray Sandy Clay</td>
<td>20-30</td>
<td>Irrigation</td>
</tr>
<tr>
<td>Gray Lime Stone &amp; Gray Shale</td>
<td>30-40</td>
<td>Other</td>
</tr>
</tbody>
</table>

Type of well: Drilled. Equipment Used: Cable Tools. (dug, driven, bored or drilled)

Water Use: Domestic □ Municipal □ Stock □ Irrigation □ Industrial □ Drainage □ Other □

Indicate on the diagram the character and thickness of the different strata met with in drilling, such as soil, clay, shale, gravel, rock or sand, etc. Show depth at which water is encountered, thickness and character of water-bearing strata and height to which the water rises in the well.

<table>
<thead>
<tr>
<th>Size of Drilled Hole</th>
<th>Size and Weight of Casing</th>
<th>From (Feet)</th>
<th>To (Feet)</th>
<th>PERFORATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>W</td>
<td>11 lb. Gal. 15</td>
<td>255</td>
<td>81st</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>7 lb. Gal. 2</td>
<td>15</td>
<td>255</td>
<td></td>
</tr>
</tbody>
</table>

Gravel Packed - Surface to be Cemented

Static Water Level for non-flowing Well...

Shut-in Pressure for Flowing Well...

Pumping Water Level...

Discharge in gal. per min. of flowing well...

How Tested: Bailier... Length of Test...

Remarks: (Gravel packing, cementing, packers, type of shutoff, location of place of use of groundwater if not at well, and any other similar pertinent information, including number of acres irrigated, if used for irrigation)

Indicate location of well and place of use, if possible. Each small square represents 10 acres.

Show exact depth of bottom.

260 ft.

This form to be prepared by driller, and three copies to be filed by the owner with the County Clerk and Recorder in the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; triplicate to the School of Mines and quadruplicate for the Appropriator.

Driller's License Number: 1
Driller's Signature: 

No. 227.12

25/26
Notice of Completion of Groundwater Appropriation by Means of Well Developed After January 1, 1969

State of Montana, Administrator of Groundwater Code State Water Conservation Board

Owner: Leonard Faitz Address: Butte, Montana
Driller: A-Line Drilling Services Address: Havre, Montana

Date of Notice of appropriation of groundwater: __________ Date completed __________

Type of well: DRILLED Equipment used: CABLE TOOL RIG (Drill, driven, bared or drilled)

Water use: Domestic □ Municipal □ Stock □ Irrigation □ Industrial □ Drainage □ Other □

Indicate on the diagram the character and thickness of the different strata met with in drilling, such as soil, clay, shale, gravel, rock or sand, etc. Show depth at which water is encountered, thickness and character of water-bearing strata and height to which the water rises in the well.

Static Water Level for non-flowing well: __________ feet.
Shut-in Pressure for flowing well: __________ feet
Pumping Water Level: __________ feet at __________ gal. per minute.
Discharge in gal. per min. of flowing well: __________
Duration of flow test: __________ Hours
Remarks: (Gravity packing, cementing, packers, type of shutoff, etc.)

This form to be prepared by driller, and three copies to be filed by the owner with the County Clerk and Recorder in the county in which the well is located, tissue copy to be retained by driller.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Driller’s License Number: __________
Driller’s Signature: __________
STATE WATER CONSERVATION BOARD

OCT 25 1966

MONTANA

COUNTY OF LIBERTY

ADMINISTRATOR OF GROUNDWATER CODE

OFFICE OF WATER RESOURCES

NOTICE OF COMPLETION OF GROUNDWATER APPROPRIATION BY MEANS OF WELL

(Under Chapter 227, Montana Session Laws, 1961)

Top of Ground

(Height above sea level)

0 - 3 Surface Soil

3 - 10 Yellow/Clay

10 - 30 Gray Clay

30 - 45 Gray Sandy Clay

45 - 55 Quick Sand

55 - 100 Gray Sandy Clay

100 - 110 Yellow Sandy Clay

110 - 135 Gray Sandy Clay

135 - 140 Gray Clay & Gravel

140 - 175 Gray Clay

175 - 180 Gray Sand, Silt & Clay & Water

180 - 198 Gray Clay

Type of well: Drilled Equipment Used: Cable Tools

Date well started: 10/10/66 Date completed: 10/20/66

Date of Notice of Appropriation of Groundwater: 10/20/66

Owner: W. A. Smith Address: Chester, Montana

Driller: Orville Jacobson Address: Kremlin, Montana

Water Use: Domestic □ Municipal □ Other □ Irrigation □

Industrial □ Drainage □ Stock □

Show depth at which water is encountered, thickness and character of water-bearing strata and height to which water rises in the well.

5-9/16 in. Black Steel above ground

11 lbs. per ft. (Shut off Quick Sand with 8-in. Pipe welded joints from surface to 62 ft.)

Static Water Level for non-flowing well 138 feet

Shut-in Pressure for Flowing Well

Pumping Water Level 193 ft., feet at 1200 gal. per MIN.

Discharge in gal. per min. of flowing well

How Tested: Bailer Length of Test: 2 Hours

Remarks: (Gravel packing, cementing, packers, type of shut-off, location of place of use of groundwater if not at well, and any other similar pertinent information, including number of acres irrigated, if used for irrigation)

Pipe Gravel Packed — Surface to be cemented

N

X

W

SHOW EXACT DEPTH OF BOTTOM.

Driller's License Number

Driller's Signature

This form to be prepared by driller, and three copies to be filed by the owner with the County Clerk and Recorder in the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; triplicate to the Montana Bureau of Mines and Geology and quadruplicate for the Appropriator.
Declaration of Vested Groundwater Rights
(Under Chapter 237, Montana Session Laws, 1961)

Name of Approprietor: Smith
Address: W.A. Monroe
town: Jane
County of: Lewis State of: Montana

have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:

1. The beneficial use on which the claim is based: Household and stock

2. The date or approximate date of earliest beneficial use: 1910

3. The amount of groundwater claimed (in miner's inches or gallons per minute): 12 gal or all

4. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof:

5. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal:

6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal:

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater: 1910

8. The depth of water table: 16.5 ft

9. The log of formations encountered in the drilling of each well if available:

10. The estimated amount of groundwater withdrawn each year: 519,632

11. The log of formations encountered in the drilling of each well if available:

12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record:

Date of Declaration: May 22, 1963

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; Quadruplicate to the Montana Bureau of Mines and Geology, and Quadruplicate for the Approprietor.
Declaration of Vested Groundwater Rights
(Under Chapter 237, Montana Session Laws, 1967)

Name of Appropriate: Smith W.A. Graveline Jurin
Address: County of Liberty State of Montana

I have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:

1. Date or approximate date of earliest beneficial use; and how continuous the use has been. 1950 every year.

2. The beneficial use on which the claim is based. Stock.

3. The amount of groundwater claimed (in miner's inches or gallons per minute). All 15 gal.

4. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof.

5. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal. Small end pump.

6. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater. 1950.

7. The depth of water table. 190 feet.

8. Indicate point of appropriation and place of use, if possible. Each small square represents 10 acres. (Diagram)

9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater. Size 5 in. depth 19.5.

10. The estimated amount of groundwater withdrawn each year. 900.4 gal.

11. The log of formations encountered in the drilling of each well if available.

12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record. Don't know.

Signature of Owner: W. A. Smith
Date: May 31 - 63

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; Triplicate to the Montana Bureau of Mines and Geology, and Quadruplicate for the Approprietor.
Notice of Completion of Groundwater Appropriation by Means of Well
(Under Chapter 237, Montana Session Laws, 1961)

<table>
<thead>
<tr>
<th>Owner</th>
<th>Property Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standford Farms</td>
<td>Loita, Montana</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Driller</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orville Jacobsen</td>
<td>Kreamer, Montana</td>
</tr>
</tbody>
</table>

Date of Notice of Appropriation of Groundwater: 11/15/66
Date completed: 11/17/66

Type of Well: Cable Tools
Equipment Used: (cable, drill, rotary or other)

Water Use: Domestic □ Municipal □ Other □ Irrigation □
Industrial □ Drainage □ Stock □

Notice on the diagram the character and thickness of the different strata met with in drilling, such as soil, clay, shale, gravel, rock or sand, etc., and indicate on the diagram the character and thickness of the different strata, such as soil, shale, gravel, etc., in drilling, and show depth at which water is encountered, thickness and character of water-bearing strata and height to which water rises in the well.

Gravel, Sand & Quick Sand - Small Water

85 ft. of 8 in. Steel Pipe to Shut off Quick Sand

Static Water Level for non-flowing Well: 30 ft.
Shut-In Pressure for Flowing Well: 137 ft. at 13 gpm per minute.
Pumping Water Level: 137 ft.
Discharge in gal. per min. of flowing well:
How Tested: 2 Hours

Remarks: (Gravel packing, cementing, packers, type of shutoff, location of place of use of groundwater if not at well, and any other pertinent information, including number of acres irrigated, if used for irrigation)

Gravel packed 8 in. pipe for 5-9/16th in. from top to bottom. Surface to be cemented.

Driller's License Number: 22
Driller's Signature: Orville Jacobsen

This form to be prepared by driller, and three copies to be filed by the owner with the County Clerk and Recorder in the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; triplicate to the Montana Bureau of Mines and Geology and quadruplicate for the Appropriator.
STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

Declaration of Vested Groundwater Rights
(Under Chapter 237, Montana Session Laws, 1961)

Lawrence Hemmer
(Name of Approptrator)
County of
Living
(State of Montana)

I have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:

2. The beneficial use on which the claim is based: Stockwater for community

3. Date or approximate date of earliest beneficial use; and how continuous the use has been: November 1925

4. The amount of groundwater claimed (in miner's inches or gallons per minute): 100 gal. per minute

5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof:

6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal:

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater:

8. The depth of water table:

9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater:

10. The estimated amount of groundwater withdrawn each year:

11. The log of formations encountered in the drilling of each well if available:

12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record:

Signature of Owner:

Date: Nov. 18, 1963

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; Triplicate to the Montana Bureau of Mines and Geology and Quadruplicate for the Approptrator.
<table>
<thead>
<tr>
<th>Sec.</th>
<th>Name of Appropriator</th>
<th>Type of Form</th>
<th>County File No.</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Cremer, Vernon</td>
<td>Well Log</td>
<td>28-2349</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>McVitt, Beatrice</td>
<td>-H</td>
<td></td>
<td></td>
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<tr>
<td>18</td>
<td>Thigpen, Harold</td>
<td>-H</td>
<td>BF8297</td>
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<tr>
<td>15</td>
<td></td>
<td>Well Log</td>
<td></td>
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<tr>
<td>16</td>
<td>Fritz, Raymond</td>
<td>GW-H</td>
<td>BF9262</td>
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<td>Smith, Wilmanicene</td>
<td>GW-H</td>
<td>BF8336</td>
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<tr>
<td>27</td>
<td>Wogan, Robert</td>
<td>-H</td>
<td>BF184</td>
<td></td>
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<td>28</td>
<td></td>
<td>-H</td>
<td>BF123</td>
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<td>33</td>
<td>Eyland, Esther Venkto</td>
<td>GW-H</td>
<td>BF3181</td>
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<tr>
<td>75</td>
<td></td>
<td>GW-H</td>
<td>BF4273</td>
<td></td>
</tr>
</tbody>
</table>
**WATER WELL LOG**

**Owner:** Vernon Cramer  
**Address:** Chester, Montana

**Driller:** Ernie Petersen  
**Address:** Cut Bank, Montana

**Date Started:** Dec. 1959  
**Date Completed:** Jan. 1959

**Location:** Sec. 4  
**T.** 32  
**N. R.** 5 E.  
**S. E. 1/4**

<table>
<thead>
<tr>
<th>Type of Well Drilled</th>
<th>Equipment Used</th>
<th>Rotary</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Boring, auger, bored, or drilled)</td>
<td>(Shovel, drill, rotor, other)</td>
<td></td>
</tr>
</tbody>
</table>

**Water use:** Domestic [X]  
**Industrial**  
**Municipal**  
**Stock**  
**Irrigation**  
**Other**

- **Casing:** 0 ft. to 285 ft.  
  **Type:** Galvanized steel  
  **Size:** 4"

- **Casing:** 285 ft. to 305 ft.  
  **Type:**

- **Casing:** 305 ft. to ft.  
  **Type:**

**Perforated or Screened:** 285 ft. to 305 ft.

**Type of screen or perforations:** Silt cut with torch in casing

**Static Water level, for non-flowing well:** 250 feet.

**Shut-in pressure, for flowing well:** (lbf/sq. in. on:)

**Pumping water level:** 300 feet at 3 gal. per min.

**How tested:**

**Length of test:**

**Remarks:** (Gravel packing, cementing, packers, type of shut-off, depth of shut-off)

(over)
McNutt Brothers  
of Chester
(Name of Appropriator)  
(State of Montana)

Approved Stock Form—State Publishing Co., Helena, Montana, 1961

Declaration of Vested Groundwater Rights
(Under Chapter 237, Montana Session Laws, 1961)

McNutt Brothers  
of Chester

County of Liberty State of Montana

have appropriated groundwater according to the Montana laws in effect prior to January 1, 1961, as follows:

1. The beneficial use on which the claim is based: stock water.

2. The date of commencement and completion of construction of the well, wells, or other works for withdrawal of groundwater: Sometime during 1920s.

3. The amount of groundwater claimed (in miner's inches or gallons per minute): 9 gallons per minute.

4. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof: Not used for irrigation.

5. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal: Presently not used. Head not used.

6. The depth of water table: 200 feet.

7. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater: Depth is approximately 300 feet and about 100 feet of water in well. Cased with 6-in. Steel Casing.

8. The estimated amount of groundwater withdrawn each year: Unknown.

9. The log of formations encountered in the drilling of each well if available: Not Available.

10. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record: Not Available.

McNutt Brothers  
Signature of Owner

Date: Dec. 18, 1963

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to County Clerk and Recorder; duplicate to the State Engineer; TriPLICATE to the Montana Bureau of Mines and Geology; and Quadruplicate for the Appropriator.
STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

Declaration of Vested Groundwater Rights
(Under Chapter 237, Montana Session Laws, 1961)

Name: Harold Boldman
Address: 123 Street
County: Libby
State of Montana

I, Harold Boldman, of the City of Libby, County of Lake, State of Montana, do hereby declare that I have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:

2. The beneficial use on which the claim is based: Irrigation

3. Date or approximate date of earliest beneficial use; and how continuous the use has been: June 15, 1959

4. The amount of groundwater claimed (in miner's inches or gallons per minute): 10 gals per minute

5. If used for irrigation, give the acreage and description of the land to which water has been applied, and name of the owner thereof: 5 acres

6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal: Drilled well

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater: June 15, 1959

8. The depth of water table: 314 ft

9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater: 314 ft deep

10. The estimated amount of groundwater withdrawn each year: 500,000 gal

11. The log of formations encountered in the drilling of each well if available: Not available

12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record: 

Signature of Owner: Harold Boldman
Date: 12-23-63

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; triplicate to the Montana Bureau of Mines and Geology, and quadruplicate for the Approprietor.
MONTANA BUREAU OF MINES AND GEOLOGY
State, Montana
WATER WELL LOG

Owner: Harold Thielman
Address: Chester, Montana
Driller: C. Earl Haviland
Address: Chester, Montana
Date Started: May 10, 1957
Date Completed: June 10, 1957
Location: Sec. 15 T. 32 N. R. 5 E. 1/4 sec. NE 1/4

<table>
<thead>
<tr>
<th>Type of well:</th>
<th>Drilled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment used:</td>
<td>Punch drill</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Water use:</th>
<th>Domestic</th>
<th>Municipal</th>
<th>Stock</th>
<th>Irrigation</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Casing:</th>
<th>0 ft. to 314 ft.</th>
<th>Type: 20 ga.</th>
<th>Size: 6&quot;</th>
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</thead>
<tbody>
<tr>
<td>Casing:</td>
<td>ft. to ft.</td>
<td>Type</td>
<td>Size</td>
</tr>
<tr>
<td>Casing:</td>
<td>ft. to ft.</td>
<td>Type</td>
<td>Size</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Perforated or Screened:</th>
<th>300 ft. to 311 ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of screen or perforations:</td>
<td>Drilled holes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Static Water level, for non-flowing well:</th>
<th>60 feet</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Shut-in pressure, for flowing well:</th>
<th>lb./sq. in. on:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Pumping water level:</th>
<th>feet at</th>
</tr>
</thead>
<tbody>
<tr>
<td>How tested:</td>
<td>Bailed water for about 1½ hrs. Couldn't lower water line</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Length of test:</th>
<th>1½ hrs</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Remarks:</th>
<th>(Gravel packing, cementing, packers, type of shut-off, depth of shut-off)</th>
</tr>
</thead>
</table>

(over)
<table>
<thead>
<tr>
<th>Depth, feet</th>
<th>Description of Material Drilled</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 70</td>
<td>Yellow clay</td>
</tr>
<tr>
<td>70 - 85</td>
<td>Brown sand</td>
</tr>
<tr>
<td>85 - 90</td>
<td>Blue Clay</td>
</tr>
<tr>
<td>90 - 150</td>
<td>Blue clay</td>
</tr>
<tr>
<td>150 - 157</td>
<td>Rocks</td>
</tr>
<tr>
<td>160 - 170</td>
<td>Greyish yellow sandy clay</td>
</tr>
<tr>
<td>170 - 180</td>
<td>Grey sand rock, Eagle sand</td>
</tr>
<tr>
<td>180 - 260</td>
<td>Grey sand rock</td>
</tr>
<tr>
<td>260 - 270</td>
<td>Blue grey sand, Hit water between 260 and 270</td>
</tr>
<tr>
<td>270 - 315</td>
<td>about 70' water and about 315' Colorado Shale, just touched.</td>
</tr>
</tbody>
</table>
STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

NOTICE OF COMPLETION OF GROUNDWATER APPROPRIATION
WITHOUT WELL
(Under Chapter 237 Montana Session Laws, 1961)

Date of Appropriation of Groundwater 1916 & 1939
Owner Raymond Fritz Address Chester, Montana
Contractor (if any) Unknown Address Fenton Burgess
Date Started 1916 & 1939 Date Completed 1916 & 1939

Describe means of obtaining groundwater without a well "as
by sub-irrigation and other natural processes", include
depth to water when applicable

Earth Fill Dam Creating Reservoir — fills from
runoff from higher ground

Quantity of water developed and used with explanation of
method used to measure or estimate such amount. If use is
intermittent

estimate approximate lengths of periods of use

Govern Approximately 5 Acres and is approximately
15 feet deep when full

Signature of Owner Raymond Fritz
Date Dec. 31, 1963

This form is to be prepared by contractor (if any), otherwise by the owner.
These copies of this notice are to be filed with the County Clerk and Recorder
of the county in which the works are located.

Please answer all questions. If not applicable, so state, otherwise the form
will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer;
Triplicate to the Montana Bureau of Mines and Geology and Quadruplicate for
the Appropriator.
STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

Declaration of Vested Groundwater Rights
(Under Chapter 237, Montana Session Laws, 1961)

W. A. Smith

(Name of Appropriator)

Chester, Liberty County, Montana

(Address)

(Town)

County of Liberty

State of Montana

have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:

2. The beneficial use on which the claim is based: to

3. Date or approximate date of earliest continuous use: 1910

4. The amount of groundwater claimed (in miner's inches or gallons per minute): 12 gal

5. If used for irrigation, give the acres and approximately the number of the land to which water has been applied and name of the owner thereof: None

6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal: Gas engine or electric

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater: 1910

8. The depth of water table: 165 ft

9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater: 5 in 165 ft

10. The estimated amount of groundwater withdrawn each year: 529,632

11. The log of formations encountered in the drilling of each well if available: Don't know

12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record: Don't know

WA Smith

Signature of Owner

May 22-63

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located. Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; triplicate to the Montana Bureau of Mines and Geology, and quadruplicate for the Appropriorator.

WA Smith

Signature of Owner

May 22-63
STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

Declaration of Vested Groundwater Rights
(Under Chapter 237, Montana Statutes, 1961)

I. Robert Wigen, of Choteau, (Name of Appropriator)
   (Address) (Town)
   County of Liberty, State of Montana, have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:

2. The beneficial use on which the claim is based: livestock water, household use, irrigation, supply for spraying crops

3. Date or approximate date of earliest beneficial use; and how continuous the use has been: May, 1912—used continuously

4. The amount of groundwater claimed (in miner's inches or gallons per minute): 12 gals., per minute

5. If used for irrigation, give the acreage and description of the lands to which water has been applied and name of the owner thereof: 1 acre, fam. garden and shelter belt

6. The means of withdrawing such water from the ground and the location of each well or other mean of withdrawal: submersible pump at well

7. The date of commencement and completion of the construction of the well, walls, or other works for withdrawal of groundwater: 1912

8. The depth of water table: 160 feet

9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater: submersible pump—1 inch pipe—180 feet deep

10. The estimated amount of groundwater withdrawn each year: 1,500,000 gals.

11. The log of formations encountered in the drilling of each well if available: None

12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record: None

Signature of Owner: Robert Wigen
Date: March 13, 1962

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; triplicate to the Montana Bureau of Mines and Geology and quadruplicate for the Appropriator.
STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

Declaration of Vested Groundwater Rights
(Under Chapter 337, Montana Session Laws, 1961)

STATE ENGINEER

I. Herbert Wigan
   (Name of Appropria) (Address) (Town)
   County of Liberty State of Montana
   have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:

2. The beneficial use on which the claim is based: livestock watering, irrigating trees, lawn & garden, and household use

3. Date of approximate date of earliest beneficial use; and how continuous the use has been May 1912 — used continuously since

4. The amount of groundwater claimed (in miner's inches or gallons per minute) 10 gals per minute

5. If used for irrigation, give the average and description of the lands to which water has been applied and name of the owner thereof 1 acre
   C. J. Wigan

6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal: Hand pump at well at present time.

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater April 1912 — May 1912

8. The depth of water level 236 feet

9. So far as it may be available, the type, size and depth of each well or the general specifications of any other works for the withdrawal of groundwater cylinder pump 2 inch pipe 150 feet deep

10. The estimated amount of groundwater withdrawn each year 150,000 gals

11. The log of formations encountered in the drilling of each well if available None

12. Such other information of a similar nature as may be useful in carrying out the policy of this act, including reference to book and page of any county record

Signature of Owner

Date

Three copies to be filed by the owner with the County Clerk and Recorder of the county in which the well is located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; duplicate to the State Engineer; triplicate to the Montana Bureau of Mines and Geology and quadruplicate for the Appropria.
Notice of Appropriation of Groundwater Without Well

(Under Chapter 237, Montana Session Laws, 1961)

Date of Appropriation of Groundwater: April 22, 1968

Owner: [Name]
Address: [Address]
Contractor (if any): [Name]
Address of Contractor: [Address]

Date Stated: April 1968
Expired: [Date]

Describe means of obtaining groundwater without a well, "as by irrigation" and other natural sources. Include depth to water; when applicable, drawdown of source.

Indicate point of appropriation and place of use if possible.

Quantity of water designed and used with explanation of method used to measure approximate amount. If use is intermittent, estimate approximate amount of periods of use.

[Map or diagram]

Signature of Owner: [Signature]
Date: April 22, 1968

This form to be signed by contractor (if any), otherwise by the owner.

Three copies of this notice are to be filed with the County Clerk and Recorder of the county in which the works are located.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

Original to the County Clerk and Recorder; Duplicate to the State Engineer; Triplicate to the Montana Bureau of Mines and Geology and Quadruplicate for the Appropriate.