STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

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

File No.: T.14N R.5E Section 9

Appropriator: Hodges

County of: Dawson State of: Montana

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

1. Name of Appraocher: Hodges
   (Address) (Town)

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

3. Date or approximate date of earliest beneficial use; and how continuous the use has been: December 1961

4. The amount of groundwater claimed (in miner's inches or gallons per minute): 
   (Specify "per foot" if only feet and acrefeet are given)
   (Specify "per acre" if only acres are given)

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: 
   (Specify "per acre" if only acres are given)
   (Specify "per foot" if only feet and acrefeet are given)

6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal: 
   (Specify "per acre" if only acres are given)
   (Specify "per foot" if only feet and acrefeet are given)

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater: December 5th to December 20th

8. The depth of water table: 535 feet
   (Specify "per foot" if only feet and acrefeet are given)
   (Specify "per acre" if only acres are given)

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: 
   (Specify "per acre" if only acres are given)
   (Specify "per foot" if only feet and acrefeet are given)

10. The estimated amount of groundwater withdrawn each year: 172,500 gallons

11. The log of formations encountered in the drilling of each well if available: 
   (Specify "per acre" if only acres are given)
   (Specify "per foot" if only feet and acrefeet are given)

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: September 25, 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 School of Mines and quadruplicate for the Appropriator.
STATE OF MONTANA
County of Dawson

Filed for record this 4th day of Oct., A.D. 1962, at 2:40 o'clock P.M.

Gordon W. Russell
County Clerk and Recorder.

By: Clinton Austin, Deputy.

Fee paid. 2.00
Declaration of Vested Groundwater Rights
(Under Chapter 237, Montana Session Laws, 1961)

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

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. Domestic purposes.

3. Date or approximate date of earliest beneficial use; and how continuous the use has been.
   April 26, 1951 to present.

4. The amount of groundwater claimed (in miner’s inches or gallons per minute).
   3 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.
   None.

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

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater.
   Started April 26, 1951, Completed 26, 1951.

8. The depth of water table.
   92 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.
   8 inch drilled well, 192 feet deep.

10. The estimated amount of groundwater withdrawn each year.
    300,000 gallons.

11. The log of formations encountered in the drilling of each well if available.
    See attached log 44.

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: ________________ 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.
HODGES, MONT. AFE 437-49. Section House Well.
6" Well; 192' deep.
Drilled by E.A. Bodin, N.P.Ry.
Work begun Apr. 2-51, Completed Apr. 26-51.

Mont. 44-
4/30-51.
Yellowstone, Div.

Well, 192' deep. Yellowstone, Div.

Ground line.

17' Clay.

18' Gravel (water bearing).

18' Shale.

29' Coal (water bearing).

47' Coal, shale & gravel mixed.

52' Sand stone (dry).

67' Coal (water bearing).

76' Shale.

186' Bottom of 6' drive shoe.

Static W.L. Apr. 24-51.

Pumping level at 4 G.P.M. for 4 hours.
Apr. 23-51.

136'

152'

186'

Water Analysis, 4/26-51.

Calium bicarbonate 1.3 G.P.G.

Sodium 46.7 mM CaCO3

Carbonate 6.4 mM

Sulfate 10.8 mM

Chloride 4.5 mM

Silica 2.0

Iron 0.6 P.P.M.

Turbidity 5

pH 7.0

Total dissolved solids 72.3 G.P.G.

Turbidity 5

Note: See file 12.33-1 for drilling and test data.

LOCATION PLAN
Scale 1" = 400'

To Glendive

To Mandon

Cedar Well

Office

Toilets

Section Ho

N

Vert. Scale 1" = 30'
### Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

1. **Alda S. Heggstad**, 4030
   - **Name of Appropriator**
   - **Address**
   - **Town**

2. **County of Dawson**
   - **State of Montana**

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

3. The beneficial use on which the claim is based: Livestock.

4. Date or approximate date of earliest beneficial use; and how continuous the use has been: 1961.

5. The amount of groundwater claimed (in miner's inches or gallons per minute): Adequate to water up to 100 Head of Livestock Daily, or 60,000 G.P.M.

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: July 1961.

8. The depth of water table: 6'.

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: 24". DIAM. HOLE 12' DEEP.

10. The estimated amount of groundwater withdrawn each year: Not Measured. in Gallons or Her than What Livestock Use.

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

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: Alda S. Heggstad
   - Date: 12-25-63

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 Appropriator.
STATE OF MONTANA
County of Dawson

Filed for record this 26th day of December, A. D. 1963, at 11 o'clock A.M.

Gordon W. Russell
County Clerk and Recorder.

By ________________________ Deputy.

[Signature] 20th

[Signature] (1)
**Notice of Completion of Groundwater Appropriation by Means of Well**

**DEVELOPED AFTER JANUARY 1, 1962**

(Under Chapter 887, Montana Session Laws, 1961)

---

**Owner**

**Address**

**Driller**

**Address**

**Operator**

**Date of Notice of Appropriation**

**Date Well Started**

**Type of Well**

**Equipment Used**

**Water Use**

---

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.

---

**Size of Hole**

**Size and Weight of Casing**

**From (Feet)**

**To (Feet)**

**PERFORATIONS**

**Size of Drill Bit**

---

**Static Water Level**

**Shut-In Pressure**

**Pumping Water Level**

**Discharge**

---

**How Tested**

**Length of Test**

---

**Remarks**

---

**USE**

---

**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, tissue copy to be retained by driller.

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

---

92

Driller’s License Number

CST

Driller’s Signature

41,578
<table>
<thead>
<tr>
<th>Spec.</th>
<th>Name of Appropriator</th>
<th>Type of Form</th>
<th>County File No.</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hess, John &amp; Salvino</td>
<td>A.W.N.</td>
<td>2046 225</td>
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<tr>
<td>2</td>
<td>Hess, John</td>
<td>A.W.N.</td>
<td>2116 041</td>
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<tr>
<td>3</td>
<td>Hess, John</td>
<td>A.W.N.</td>
<td>2238 911</td>
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<tr>
<td>4</td>
<td>Hess, John &amp; Salvino</td>
<td>A.W.N.</td>
<td>2279 021</td>
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<td>5</td>
<td>Montana Highway Commision</td>
<td>A.W.N.</td>
<td>314376</td>
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<td>6</td>
<td>Kalispell Bridge</td>
<td>A.W.N.</td>
<td>385732</td>
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<td>7</td>
<td>School District 10</td>
<td>A.W.N.</td>
<td>341456</td>
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<tr>
<td>11</td>
<td>Rain hard</td>
<td>A.W.N.</td>
<td>579206 98</td>
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<td>12</td>
<td>Bosshard, Arthur</td>
<td>A.W.N.</td>
<td>2266759</td>
<td></td>
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<tr>
<td>13</td>
<td>Bosshard, David</td>
<td>A.W.N.</td>
<td>2266551</td>
<td></td>
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<tr>
<td>14</td>
<td>Bosshard, Donald</td>
<td>A.W.N.</td>
<td>2266826</td>
<td>desc. 12 above</td>
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<tr>
<td>15</td>
<td>Reinhard, Jacob</td>
<td>A.W.N.</td>
<td>362580</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Reinhard, Jacob</td>
<td>A.W.N.</td>
<td>2266835</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Reinhard, Jacob</td>
<td>A.W.N.</td>
<td>2266835</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Hess, John &amp; Salvino</td>
<td>A.W.N.</td>
<td>2046493 (14N.R. 54E)</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Hess, John &amp; Salvino</td>
<td>A.W.N.</td>
<td>2046952</td>
<td></td>
</tr>
</tbody>
</table>
STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

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

1. JOHN E. SELLER, Hess
   (Name of Appropmtor) (Address) (Town)
   County of Platte, State of Montana
   have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:

<table>
<thead>
<tr>
<th>Sec. 1</th>
<th>Sec. 13</th>
<th>N 30</th>
</tr>
</thead>
<tbody>
<tr>
<td>195</td>
<td>195</td>
<td>195</td>
</tr>
</tbody>
</table>

   2. The beneficial use on which the claim is based: Livestock (b) Irrigation (c) Others

   3. Date or approximate date of earliest beneficial use: 1951

   4. The amount of groundwater claimed (in millions of gallons per minute): 0.000

   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: Cylinder 1 Pump

   7. The depth of water table: 10'

   8. The date of completion of the construction of the well, or other works for withdrawal of groundwater:

   9. The depth of each well or the specifications of any other works for the withdrawal of groundwater:

   10. The estimated amount of groundwater withdrawn each year: Not Known

   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: 12-31-63

Date: 1-13-53

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 Appropmtor.
STATE OF MONTANA
County of Dawson

Filed for record this 31st day of December, A.D. 19-63, at 4:30 o'clock P.M.

[Signature]
County Clerk and Recorder.

By _______________ Deputy.
Declaration of Vested Groundwater Rights
(Under Chapter 237, Montana Session Laws, 1961)

1. Name of Appropriator:

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

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

4. The amount of groundwater claimed (in miner's inches or 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:

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:

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 Dawson
Filed for record this 21st. day of
December, A. D. 1965, at
4:30 o'clock, M.

Gordon W. Russell
County Clerk and Recorder.

By_____________________ Deputy.
STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

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

1. [Name of Appropriator] [Address] [Town]

County of [County] State of [State] 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
   [Lions, Tool and personal use]

3. Date or approximate date of earliest beneficial use; and how continuous the use has been: [June, 1947]
   [Used steadily]

4. The amount of groundwater claimed (in miner's inches or gallons per minute) 8 gallons in 1 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
   [Not used]

6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal
   [Not specified]

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater
   [June, 1947]

8. The depth of water table
   [822]

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
   [Not specified]

10. The estimated amount of groundwater withdrawn each year
    [350.200]

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
    [None]

Signature of Owner

Date: March 9, 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 School of Mines and Quadruplicate for the Appropriator.
STATE OF MONTANA
County of Dawson

Filed for record this 9th day of
February A. D. 1902, at
4:00 o'clock P.M.

Gordon W. Russell
County Clerk and Recorder.

By: Alice Ray, Deputy.

Fee pd. $2.00
Notice of Completion of Groundwater Appropriation by Means of Well
(Under Chapter 237, Montana Session Laws, 1961)

Owner: John Hess  Address: C. B. R. Fallon, Mont.
Driller: Joe Johnson  Address: Terry, Mont.

Date of Notice of Appropriation of Groundwater: Sept. 15, 65
Date Well started: Sept. 15, 65  Date Completed: Sept. 15, 65

Type of Well: Drilled  Equipment Used: Spudder
(dug, driven, bored or drilled)

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

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 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>6&quot;</td>
<td>6&quot; I.D.</td>
<td>0'</td>
<td>94'</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Kind of Hole</th>
<th>From (Feet)</th>
<th>To (Feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>54'</td>
<td>1'</td>
<td>94'</td>
</tr>
<tr>
<td>48'</td>
<td>1'</td>
<td>94'</td>
</tr>
</tbody>
</table>

Static Water Level for non-flowing Well: 65 feet.
Shut-in Pressure for Flowing Well: 70 feet at 15+ gal. per minute.
Pumping Water Level: 70 feet
Discharge in gal. per min. of flowing well:
How Tested: Balance
Length of Test: 4 hrs.
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.

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.
STATE OF MONTANA
County of Dawson
Filed for record the 14th day of Oct., A.D. 19____ at 9:30, o'clock A.M.

Notary W. Russell
County Clerk & Recorder
By: Alice Austin, Deputy

293871
Notice of Completion of Groundwater Appropriation by Means of Well

DEVELOPED AFTER JANUARY 1, 1962
(UNDER CHAPTER 237, MONTANA SESSION LAWS, 1961)

Owner: Edna W. Winfield
Address: Glendive, Mont.

Driller: H. A. Keesler
Address: Glendive, Mont.

Date of Notice of appropriation of groundwater: 3-25-57
Date completed: 4-1-57

Type of well: Drilled (Dug, Driven, bored or drilled)
Equipment used: Rotary
Water use: Domestic, Industrial, Drainage

Indicate on the diagram the character and thickness of the different strata met with in drilling, such as soil, clay, 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 Weights of Ground Water in Feet</th>
<th>Ti (in feet)</th>
<th>Perforations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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: Head

Length of Test: 24 hours

Remarks: (Gravel packing, cementing, equipment, type of shutoff)

Indicate location of well and place of use, if possible. Each small square represents 40 acres.

(Continue on reverse side)

USE—If used for irrigation, industrial, drainage or other. Explain, state number of acres and location of other data (i.e.: Lot, Block and Addition).

Driller's License Number

Driller's Signature

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

State of Montana
Montana Water Resources Board

NOTICE OF COMPLETION OF GROUNDWATER APPROPRIATION BY MEANS OF WELL

Developed after January 1, 1962

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

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.

Owner: Montana Highway Commission

Address: Helena, Montana

Date well started: July 6, 1971

Completed: December 7, 1971

Type of well: Drilled

Equipment used: Rotary Drill

Water Use: Domestic

*Describe Most Area Water Well

USE: If used for Irrigation, industrial, drainage or other. Explain, state number of acres and location or other data (i.e. Lot, Block and Addition).

ESTIMATED ANNUAL WITHDRAWAL

<table>
<thead>
<tr>
<th>Size of Drilled Hole</th>
<th>Size and Weight of Pipe</th>
<th>Pressure</th>
<th>Perforations</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-5/8&quot;</td>
<td>2&quot; galv. 6.5'</td>
<td>1110.0'</td>
<td>929.0' x 4'</td>
</tr>
<tr>
<td>2&quot; gate valve set at 6.5' ft. &amp; Frost-free valve set at 5.5' with stand pipe extending 2.0' above ground level. 6&quot; casing set at 6.5'</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Static water level: Artesian ft.

Pumping water level: 50 ft.

Pressure: 9.3 psi

INDICATE LOCATION OF WELL AND PLACE OF USE, IF POSSIBLE.

EACH SMALL SQUARE REPRESENTS 40 ACRES above ground level.

Driller's Signature: 

Driller's Address: Helena, Montana

LICENSE NO. 206

WATER ANALYSIS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PH</td>
<td>8.3</td>
</tr>
<tr>
<td>Total Hardness</td>
<td>40 ppm CaCO3</td>
</tr>
<tr>
<td>Conductivity</td>
<td>1.0 mhos</td>
</tr>
</tbody>
</table>
| Water is not corrosive but is 
Incorrosible to metal. |
| Sodium | 355 mg/l |
| Ca | 2.5 mg/l |
| Mg | 1.26 mg/l |
| SiO2 | 45.6 |

Top of Ground Level (above sea level) 2222.0'
STATE OF MONTANA
County of Dawson
Filed for record this 20th day of
November, A.D. 1971, at
6:30 o'clock A.M.
Supt. H. Russell
County Clerk & Recorder
By
Deputy
STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER
OFFICE OF STATE ENGINEER

Notice of Completion of Groundwater Appropriation by Means of Well
(Under Chapter 237, Montana Session Laws, 1961)

Owner: Bruce Kalfall
Address: Terry, Montana

Driller: Ira C. Bond
Address: Terry, Montana

Date of Notice of Appropriation of Groundwater

Date well started: 9/18/63
Date completed: 9/20/63

Type of well: Drilled
Equipment Used: Cabledrill

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>6 5/8 ID</td>
<td>251 lbs</td>
<td>0</td>
<td>43</td>
<td>5/16</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>39</td>
</tr>
</tbody>
</table>

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: with bailer
Length of Test 1 hour

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)

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 School of Mines and Quadruplicate for the Appropriator.
STATE OF MONTANA
County of Dawson

Filed for record this 25th day of Sept. A.D. 1942, at 1:15 o'clock P.M.

L. H. LANDER
County Clerk and Recorder

By: Alvin Austin, Deputy

See folio 204
Notice of Completion of Groundwater Appropriation by Means of Well

DEVELOPED AFTER JANUARY 1, 1963

(Under Chapter 237, Montana Session Laws, 1961)

OWNER: [Address]

Driller: Joe Johnson Drig. Address: Terry, Mont.

Date of Notice of appropriation of groundwater:

Date well started: 8/19/68

Date completed: 8/19/68

Type of well: Drilled

Equipment used: Cable Tool

Water use: Domestic

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>
</tr>
</thead>
<tbody>
<tr>
<td>6&quot;</td>
<td>6&quot; ID</td>
<td>+1</td>
<td>52</td>
</tr>
</tbody>
</table>

Bores

30 52

PERFORATIONS

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

Length of Test

Remarks: (Gravel packing, cementing, packers, type of cutoff)

Indicate location of well and place of use, if possible. Each small square represents 40 acres.

Show exact depth of bottom.

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

154

14 799
### WATER WELL LOG

- **Owner:** Carl Rein  
  **Address:** CBR Rt. Glendive

- **Driller:** Ira C. Bond  
  **Address:** Terry, Montana

- **Date Started:** July 1, 1957  
  **Date Completed:** July 3, 1957

- **Location:** Sec. 11 T. 13 R. 53 ½ sec. NW¼

<table>
<thead>
<tr>
<th>Type of well</th>
<th>Drilled</th>
<th>Equipment used</th>
<th>Cable Tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Dug, driven, bored, or drilled)</td>
<td>(Churn drill, rotary, other)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Water use:** Stock [x]  
  Domestic [ ]  
  Municipal [ ]  
  Industrial [ ]  
  Drainage [ ]  
  Other: [ ]

- **Casing:**  
  1' above surface: 46'  
  Type: Steel  
  Size: 6 5/8 OD

<table>
<thead>
<tr>
<th>Casing:</th>
<th>ft. to</th>
<th>Type</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<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>None Water come in at Bottom of casing</th>
</tr>
</thead>
</table>

- **Static Water level, for non-flowing well:** 30 feet
- **Shut-in pressure, for flowing well:** lb./sq. in. on: (date)
- **Pumping water level:** 25 feet at 25 gal. per min.
- **How tested:** bailer
- **Length of test:** 3 hours

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

(over)
## Log of Well

<table>
<thead>
<tr>
<th>Depth, feet</th>
<th>Description of Material Drilled</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 11</td>
<td>top soil</td>
</tr>
<tr>
<td>11 - 30</td>
<td>fine gravel</td>
</tr>
<tr>
<td>30 - 46</td>
<td>coarse gravel with water</td>
</tr>
</tbody>
</table>
STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

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

Arthur W. Bouchard

County of Dawson
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: Operation of Farm, Household, and Livestock

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

4. The amount of groundwater claimed (in miner's inches or gallons per minute): 5 gals per minute, each well

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: Artesian (Flowing Under Pressure), Std. Pump Jack

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater: 1940 - 1950

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: 1 Well, 30 ft. Deep, 1-1/4" Cast Iron Submersible, No. 2, 10 ft. Deep, 3/4" Steel Plunging

10. The estimated amount of groundwater withdrawn each year: 500,000 gal., 2.5 million available

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: 1/3/63

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

3/8/63
STATE OF MONTANA
County of Dawson

Filed for record this 30th day of December, A.D. 1962, at 4 o'clock M.

Gordon W. Russell
County Clerk and Recorder

By ________________________ Deputy.
Declaration of Vested Groundwater Rights
(Under Chapter 237, Montana Session Laws, 1961)

1. Donald E. Bouchard, of Glendive, Mont.
   (Name of Appropriator)
   (Address)
   (Town)

   County of Dawson
   State of Montana

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

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

2. The beneficial use on which the claim is based:
   - Household
   - Livestock (1)
   - Household + Livestock (12)

3. Date or approximate date of earliest beneficial use; and how continuous the use has been:
   - 1940
   - 1946

4. The amount of groundwater claimed (in miner's yard per minute):
   - 2.20 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:
   - Irrigation of Farm, Gardens, Shocks, etc. Used by above named Appropriator

6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal:
   - Free flowing (artesian)
   - Pump

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater:
   - 1946

8. The depth of water table:
   - 1

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:
   - 1 2" pipe to 91 feet
   - 2 curved @ 45° with 1½" cylinder 1 Shallow Well Pump to a depth of 48'

10. The estimated amount of groundwater withdrawn each year:
    - 650,000

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:

   Unknown

   Signature of Owner: Donald E. Bouchard
   Date: 04-27-68

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 Dawson

Filed for record this 27th day of December, A. D. 1942, at 5:00 o'clock M.

[Signature]

County Clerk and Recorder.

By ___________ Deputy.
## Notice of Completion of Groundwater Appropriation by Means of Well

DEVELOPED AFTER JANUARY 1, 1962

**STATE OF MONTANA**

**ADMINISTRATOR OF GROUNDWATER CODE**

**OFFICE OF STATE MINERALS**

**Notice of completion of groundwater appropriation by means of well,**

DEVELOPED AFTER JANUARY 1, 1962

(Under Chapter 237, Montana Session Laws, 1961)

---

### Log

**Top of Ground**

(El. above sea level)

<table>
<thead>
<tr>
<th>Depth</th>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>6'</td>
<td>15%</td>
<td>Yellow Sandy Soil</td>
</tr>
<tr>
<td>15'</td>
<td>33%</td>
<td>Sand, Gravel &amp; Quartzite</td>
</tr>
<tr>
<td>33'</td>
<td>105%</td>
<td>Gumbo/strats of coal</td>
</tr>
<tr>
<td>105'</td>
<td>106%</td>
<td>Rock</td>
</tr>
<tr>
<td>185'</td>
<td>183%</td>
<td>Gumbo/strats of shale</td>
</tr>
<tr>
<td>225'</td>
<td>225%</td>
<td>Sandstone/strats of shale</td>
</tr>
<tr>
<td>270'</td>
<td>277%</td>
<td>Rock (hard)</td>
</tr>
<tr>
<td>300'</td>
<td>375%</td>
<td>Coal/strats of Gumbo</td>
</tr>
<tr>
<td>300%</td>
<td>393%</td>
<td>Coal</td>
</tr>
<tr>
<td>350'</td>
<td>400%</td>
<td>Coal &amp; Dk. Brn Shale</td>
</tr>
<tr>
<td>400'</td>
<td>445%</td>
<td>Gumbo</td>
</tr>
<tr>
<td>460'</td>
<td>482%</td>
<td>Blu Gumbo</td>
</tr>
<tr>
<td>485'</td>
<td>484%</td>
<td>Rock</td>
</tr>
<tr>
<td>500'</td>
<td>500%</td>
<td>Coal &amp; strats of sandstone</td>
</tr>
<tr>
<td>550'</td>
<td>650%</td>
<td>Sandstone</td>
</tr>
<tr>
<td>650'</td>
<td>780%</td>
<td>Sandstone</td>
</tr>
<tr>
<td>780'</td>
<td>865%</td>
<td>Sandstone</td>
</tr>
</tbody>
</table>

---

### Perforations

**Size of perforations**

<table>
<thead>
<tr>
<th>Depth</th>
<th>Diameter</th>
<th>Length</th>
<th>Flow Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>6'</td>
<td>5'</td>
<td>0'</td>
<td>N/A</td>
</tr>
<tr>
<td>4½'</td>
<td>2'</td>
<td>0'</td>
<td>3'</td>
</tr>
</tbody>
</table>

---

Static Water Level for non-flowing wells

Shut-in Pressure for Flowing Well

Pumping Water Level

Discharge in gallons per minute

Length of Test

Remarks: (Gravel packing, cementing, packet, type of shutoff) *Cemented with 12 sacks of cement.*

---

Indicate location of well and place of use, if possible. Each small square represents 40 ac. for

USE—If used for irrigation, industrial, drainage or other. Explain, state number of acres and location or other data (i.e., Lot, Block and Addition).

---

Driller's License Number

Driller's Signature

254

144, 149
302860

Carl Reim

to

The Public

State Rights

STATE OF MONTANA
County of Dawson
Filed for record this 16th day of
May A.D. 1941 at
12:45 o'clock M.

[Signature]
County Clerk & Recorder

By [Signature] Deputy

[Amount paid: $2.00]
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

Owner

Address

Contractor (if any)

Address of Contractor

Date Started

Date Completed

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

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

Signature of Owner

Date

This form to be prepared 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 Appropriator.
STATE OF MONTANA
County of Dawson
Filed for record this 21st day of December, A. D. 1963, at 3:30 o'clock, M.
Gordon A. Russell
County Clerk and Recorder.
By: Deputy
## WATER WELL LOG

### Owner:
- **David Gaub**
- Address: CB# Glendive, Montana

### Driller:
- **Ira C. Bond**
- Address: Terry, Montana

### Date Started:
- March 27, 1960

### Date Completed:
- March 28, 1960

### Location:
- Sec. 16, T. 13, R. 53, M. & S. L. & M:
- 1/4 sec.

### Date Started:
- March 27, 1960

### Date Completed:
- March 28, 1960

### Type of well:
- Driven

### Equipment used:
- Cable tool

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

### Casing:
- Surface ft. to 41.5 ft.
- Type: steel
- Size: 4"

### Casing:
- 41.5 ft. to 42.7 ft.
- Type: 4"
- Size:

### Casing:
- 42.7 ft. to 43.4 ft.
- Type:
- Size:

### Perforated or Screened:
- 30 inches on the bottom

### Type of screen or perforations:
- Burned holes

### Static Water level:
- For non-flowing well: water raises to within 8 feet of surface.
- Feet:

### Shut-in pressure:
- For flowing well:
- Date:
- Lb./sq. in.:

### Pumping water level:
- Date:
- Above:
- Feet:
- 4 gal. per min.
- Wired

### How tested:
- 2 hours

### Remarks:
- (Gravel packing, cementing, packers, type of shut-off, depth of shut-off)
- In this type of well the casing is pointed and the perforation put in like a screen, then the casing is driven to the desired depth with the cable tool rig. This can be done when the water level is 8 feet and the formation is gravel.
<table>
<thead>
<tr>
<th>Depth, feet</th>
<th>Description of Material Drilled</th>
</tr>
</thead>
<tbody>
<tr>
<td>From</td>
<td>To</td>
</tr>
<tr>
<td>0</td>
<td>21 1/4&quot;</td>
</tr>
</tbody>
</table>
STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

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

1. [Name of Appropriator] of [Address] in [Town] of [County] of [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:

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

4. The amount of groundwater claimed (in miner's inches or 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:

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:

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 Dawson

Filed for record this 21st day of
December, A. D. 1943, at
2:30 o'clock, P.M.

Gordon J. Russell
County Clerk and Recorder.

By
Deputy.
Top of Ground

(Elev. above sea level— )

0 = 10 Yellow Sandy Soil
10 = 32 Sand & Gravel
32 = 48 Brown Gumbo
48 = 56 Sandstone
56 = 62 Gumbo

Notice of Completion of Groundwater Appropriation by Means of Well
DEVELOPED AFTER JANUARY 1, 1952
(Under Chapter 237, Montana Session Laws, 1951)

Owner
Joe Sienk
Address
CBB, Glendale

Driller
Joe Johnson Drilling
Address

Date of Notice of appropriation of groundwater

Date well started

4/28/50

Date completed

4/28/59

Type of well
Drilled

Equipment used
Cable Tool

(Dig, driven, bored or drilled)

(Churn drill, rotary or other)

Water use:
Domestic
Municipal
Stock
Irrigation
Industrial
Drainage
Other

Indicate on the diagram the character and thickness of the different strata met 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 (Feet)</th>
<th>To (Feet)</th>
<th>PERFORATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>7&quot;</td>
<td>5 9/10</td>
<td>62</td>
<td>62</td>
<td>Holes 3/8&quot;</td>
</tr>
</tbody>
</table>

Static Water Level for non-flowing well

16 feet.

Shut-in Pressure for Flowing Well

Pumping Water Level

48 feet at 18 gal. per minute.

Discharge in gal. per min. of flowing well

How Tested
Bailer Tested

Length of Test
2 hrs.

Remarks: (Gravel packing, cementing, packers, type of shutoff)

Sand Problem

NE 4th Sec 16, T 12 N, R 53 E

Indicate location of well and place of use, if possible. Each small square represents 40 acres.

Show exact depth of bottom.

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, tissues 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

4/5/1959
STATE OF MONTANA
County of Dawson
Filed for record this ___ day of ___
May, A.D. 19___ at ___ o'clock ___ M.
Secretary of State
County Clerk & Recorder
By: ___ Deputy

306155
# Groundwater Index

**County:** Dawson  
**Twp.:** 147  
**Rge.:** 546

<table>
<thead>
<tr>
<th>Sec.</th>
<th>Name of Appropriator</th>
<th>Type of Form</th>
<th>County</th>
<th>Lie No.</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Bynum, John &amp; Ouida</td>
<td>5977</td>
<td></td>
<td>924</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Bynum, John &amp; Ouida</td>
<td>8803</td>
<td></td>
<td>924</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Haldle, Paul Jr.</td>
<td>1870</td>
<td></td>
<td>285.816</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Haldle, Paul Jr.</td>
<td>59204</td>
<td></td>
<td>275</td>
<td></td>
</tr>
</tbody>
</table>


### Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

1. **Name of Appropriator: John Doe**
   **Address:** 123 Main St., Lomandra
   **Town:** Helena, Montana
   **County:** Lewis
   **State:** Montana

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

3. Date or approximate date of earliest beneficial use; and how continuous the use has been: April 1943, Continuous

4. The amount of groundwater claimed (in miner's inches or gallons per minute): 50 gal./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:

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: May 1, 1945

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: 33,000

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

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

---

**Signature of Owner:**

**Date:** Dec 19, 1965

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.
STATE OF MONTANA
County of Dawson
Filed for record this 31st day of
December, A.D. 1963, at
Gordon W. Russell
County Clerk and Recorder.
By____________________Seal
Deputy.
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: 1967
Owner: [Name]
Address: [Address]
Contractor (if any): [Name]
Address of Contractor: [Address]
Date Started: [Date]
Date Completed: [Date]

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

Plowing Spring

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.

Used Year around for cattle

Indicate point of appropriation and place of use, if possible.

Signature of Owner: [Signature]
Date: [Date]

This form to be prepared 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; Triplicate to the State Engineer; Triplicate to the Montana Bureau of Mines and Geology for the Appropriator.
STATE OF MONTANA
County of Dawson

Filed for record this 31st day of November, A.D. 18__ at __30__ o'clock __M__.

[Signature]

County Clerk and Recorder.

By __________________________ Deputy.
Notice of Completion of Groundwater Appropriation by Means of Well

(Under Chapter 237, Montana Session Laws, 1961)

Owner: Fred J. Hatfield  Address: Fallon, Montana
Driller: Ira C. Bond  Address: Terry, Montana

Date of Notice of Appropriation of Groundwater

Date well started... 9/9/63  Date Completed... 9/25/63

Type of well: Equipment Used
(dug, driven, bored or (Churn, drill, rotary 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>Strata</th>
<th>Size and Weight of Casing</th>
<th>PERFORATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 inch to 120 feet</td>
<td>6 5/8 ID 25 lbs</td>
<td></td>
</tr>
<tr>
<td>6 1/2 ft from there</td>
<td>115</td>
<td>8 26</td>
</tr>
<tr>
<td>12 ft</td>
<td>140</td>
<td>160</td>
</tr>
</tbody>
</table>

Shut-in Pressure for Flowing Well

Pumping Water Level: 160 feet at 4 gal per minute.

Discharge in gal, per min. of flowing well

How Tested: bailer  Length of Test: three 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 used for irrigation)

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

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, and quadruplicate for the Appropriator.
MONTANA BUREAU OF MINES AND GEOLOGY
Butte, Montana

WATER WELL LOG

Owner: [Name]
Address: [Address]
Driller: [Name]
Address: [Address]
Date Started: [Date]
Date Completed: [Date]
Location: Sec. [Section], T. [Township], R. [Range], Sec. [Section]

Type of well: [Type]
Equipment used: [Equipment]

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

Casing:
- Type: [Type]
- Size: [Size] ft.

Perforated or Screened:
- From: [From] to [To] ft.

Type of screen or perforations: [Type]

Static Water level, for non-flowing well: [Level] feet.
Shut-in pressure, for flowing well: [Pressure] lb/sq. in. on [Date]

Pumping water level: [Level] feet at [Rate] gal. per min.

How tested: [Test]

Length of test: [Length]

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

(over)
<table>
<thead>
<tr>
<th>Depth, feet</th>
<th>Description of Material Drilled</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 5</td>
<td>Sand, Top Soil. 675-715 ft. Grey Shale</td>
</tr>
<tr>
<td>5 - 18</td>
<td>Sand &amp; Gravel. 715-750 ft. Grey Shale</td>
</tr>
<tr>
<td>18 - 38</td>
<td>Blue Sand. 750-810 ft. Grey Shale</td>
</tr>
<tr>
<td>38 - 42</td>
<td>Light Blue Shale. 810-850 ft. Brown Shale</td>
</tr>
<tr>
<td>42 - 44</td>
<td>Coal. 850-870 ft. Grey Shale</td>
</tr>
<tr>
<td>44 - 65</td>
<td>Blue Shale. 870-915 ft. Grey Sandstone</td>
</tr>
<tr>
<td>65 - 78</td>
<td>Beige Sandstone. 915 ft.</td>
</tr>
<tr>
<td>78 - 77</td>
<td>Blue Shale</td>
</tr>
<tr>
<td>89 - 135</td>
<td>Rock</td>
</tr>
<tr>
<td>135 - 185</td>
<td>Grey Shale</td>
</tr>
<tr>
<td>185 - 190</td>
<td>Coal</td>
</tr>
<tr>
<td>190 - 210</td>
<td>Grey Shale</td>
</tr>
<tr>
<td>210 - 230</td>
<td>Rock</td>
</tr>
<tr>
<td>230 - 247</td>
<td>Sandstone</td>
</tr>
<tr>
<td>247 - 270</td>
<td>Green Shale</td>
</tr>
<tr>
<td>270 - 285</td>
<td>Grey Shale</td>
</tr>
<tr>
<td>285 - 315</td>
<td>Sandstone</td>
</tr>
<tr>
<td>315 - 345</td>
<td>Pink Shale</td>
</tr>
<tr>
<td>345 - 370</td>
<td>Light Grey Shale</td>
</tr>
<tr>
<td>370 - 375</td>
<td>Coal</td>
</tr>
<tr>
<td>375 - 440</td>
<td>Light Grey Shale</td>
</tr>
<tr>
<td>440 - 441</td>
<td>Rock</td>
</tr>
<tr>
<td>441 - 487</td>
<td>Grey Shale</td>
</tr>
<tr>
<td>487 - 590</td>
<td>Dark Shale</td>
</tr>
<tr>
<td>590 - 591</td>
<td>Rock</td>
</tr>
<tr>
<td>591 - 695</td>
<td>Grey Shale</td>
</tr>
<tr>
<td>Sec.</td>
<td>Name of Appropriator</td>
</tr>
<tr>
<td>------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>16</td>
<td>Kryg Ranch</td>
</tr>
<tr>
<td>8</td>
<td>Kable, Elizabeth</td>
</tr>
<tr>
<td>17</td>
<td>Alrich, Garfield</td>
</tr>
<tr>
<td>20</td>
<td>Alrich, Coop. by Garfield</td>
</tr>
<tr>
<td>21</td>
<td>App John</td>
</tr>
<tr>
<td>7</td>
<td>Kaul, Sahl</td>
</tr>
<tr>
<td>7</td>
<td>Kaul, Sahl</td>
</tr>
<tr>
<td>18</td>
<td>Kaul, Jacob</td>
</tr>
<tr>
<td>19</td>
<td>Kaul, Jacob</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: 1906

Owner: Krug Ranch
Address: Glendive, Montana

Contractor (if any): Ranch Labor
Address of Contractor

Date Started: Date Completed: 1906

Indicate point of appropriation and place of use, if possible.

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:

Continuous flow for livestock one eighth of pipe
one gal. min.

Signature of Owner: Krug Ranch
Date: December 30, 1963

This form to be prepared 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 Appropriator.
STATE OF MONTANA
County of Dawson

Filed for record this 30th day of December, A. D. 1945, at 4:30 o'clock P.M.

Gordon W. Russell
County Clerk and Recorder

Guy Sackett
Deputy.
Notice of Completion of Groundwater Appropriation Without Well

(Under Chapter 237 Montana Session Laws, 1961)

Date of Appropriation of Groundwater: Oct 1946

Owner: [Name]
Address: [Address]

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

Date Started: [Date] Date Completed: [Date]

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

- [Type of means of obtaining groundwater]
- [Description of means of obtaining groundwater]

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.

- [Quantities and descriptions]

Indicate point of appropriation and place of use, if possible.

This form to be prepared 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 Appropriator.
STATE OF MONTANA
County of Dawson

Filed for record this 12th day of

Not. A. D. 19__ at

9:00 o'clock A.M.

Gordon W. Russell
County Clerk and Recorder.

By Alice Austin, Deputy.

Rev. p. # 285749
STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

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

1. [Name of Appropriator] of [Address] in the Town of [Town], County of [County], State of [State], have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:

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

2. The beneficial use on which the claim is based: Water for farm stock.

3. Date or approximate date of earliest beneficial use; and how continuous the use has been since Oct. 1940: 7 months out of a year.

4. The amount of groundwater claimed (in miner’s inches or gallons per minute): 20 gallons 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: Montana.

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

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

8. The depth of water table: Half of water from bottom up.

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: [Type, size, and depth].

10. The estimated amount of groundwater withdrawn each year: 80,000 gallons.

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

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: [Signature]

Date: [Date]

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

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

Filed for record this 12th day of January, A.D. 1965, at 9:00 o'clock A.M.

Robert W. Lougher
County Clerk and Recorder

By Dennis Austin, Deputy

Dec. 30
STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

Declaration of Vested Groundwater Rights
(Under Chapter 237, Montana Session Laws, 1963)

Elizabet Ro... (Name of Appropria...)
of 322 E. Borden, Glendive

County of Montana have appropriated groundwater according to the Montana laws in effect prior to Oct. 1, 1962, as follows:

2. The beneficial use on which the claim is based

3. Date or approximate date of earliest beneficial use; and how continu-... 1918 Continuous

4. The amount of groundwater claimed (in miner's inches or gallons per minute) 1 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 No

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

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

8. The depth of water table 10 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 Depth 10 feet four feet square

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

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 December 19, 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 Dawson

Filed for record this 16th day of December, A.D. 1965, at 1:30 o'clock P.M.

[Signature]
H. L. loses
County Clerk and Recorder

[Signature]
Frankin, Deputy