Log of Well

Depth, feet		Description of Material Drilled
From	To	
0	5	Silt loam
5	8	Sand (medium
8	40	Gravel.

I received and filed this instrument for record on the ... day of Aug ... 1961 at 9:45 o'clock A. M., permanent files of Missoula County, State of Montana

Witness my hand:
MARTIN S. BEHNIR, County Recorder
By ... Deputy
Fee $ ... Paid

Copied

1894298

#18

Approved Stock Form—State Publishing Co., Helena, Montana—41921

File No.....

T. 14N R. 21W

DUPLICATE

County Missoula

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

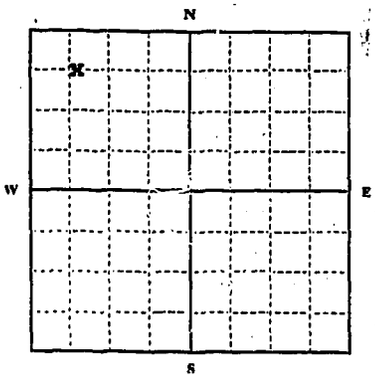
RECEIVED JAN 3 1964 ENGINEER

Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

1. Victor Loiselle, of Route 2 Missoula
(Name of Appropriator) (Address) (Town)

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



NW ¼ Sec. 13 T. 14N R. 21W

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 Domestic, stock watering and lawn.

3. Date or approximate date of earliest beneficial use; and how continuous the use has been No. 1 - 1955; No. 2-1897

4. The amount of groundwater claimed (in miner's inches or gallons per minute) No. 1 - 50 gals minute
No. 2 - 10 gals. 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
Domestic, stock watering and lawn.

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

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater No. 1 - 1955
No. 2 - 1897

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 No. 1 - 161 feet 6 inch casing
No. 2 - 25 feet - 3 foot dug well concrete casing

10. The estimated amount of groundwater withdrawn each year one million gallons

11. The log of formations encountered in the drilling of each well if available
No. 1 - gravel and quicksand
No. 2 - gravel

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 Victor Loiselle

Date December 13, 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.

20292

1173

I received and [illegible] for
record on the 31 [illegible] dec 1963
at 6:12 o'clock P [illegible] permanent files
of Missoula County [illegible] of Montana
Witness my hand [illegible]
County Recorder
By Ethel Lane Deputy
Fee $1.00 Paid

C —Helena Independent Record

File No.....

T. 14 N. R. 21 W. #13

DUPLICATE

County.....

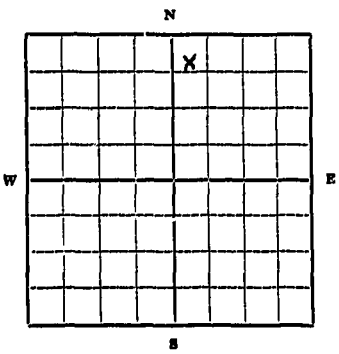
STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

RECEIVED
JAN 3 1963
STATE ENGINEER

Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

1. Marguaritte L. Miller (Name of Appropriator), of Rt. #2, Grass Valley, Missoula (Address) (Town)
County of Missoula State of Montana
have appropriated groundwater according to the Montana laws in effect prior to January 1, 1962, as follows:



NW ¼ NE¼ Sec. 13 T. 14 R. 21

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 Livestock water and household

3. Date or approximate date of earliest beneficial use; and how continuous the use has been Well first used approximately 1862. Used intermittently since

4. The amount of groundwater claimed (in miner's inches or gallons per minute) 100 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 not applicable

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

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater well hand excavated approximately 1862. Other information unavailable

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 Hand excavated well, 18 inches in diameter. Approximately 25 feet in depth, cased with 18 inch C.M.P. 16 guage. Various hand and mechanical pumps used. Gasoline powered mechanical pump last used.

10. The estimated amount of groundwater withdrawn each year 15,000 gallons per year

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 Marguaritte L. Miller

Date December 27, 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.

19900

67 215051

I received and filed this instrument for record on the 20 day of Dec 1969 at 2:07 o'clock P.M., permanent files of Missoula County, State of Montana

Witness my hand:
MARTIN E. BRINER, County Recorder
By Martin E. Briner Deputy
Fee $ 2.00 Paid

G

Approved Stock Form—State Publishing Co., Helena, Montana—42234

013

File No.....

T. 14 N R. 21 W

DUPLICATE

County Missoula

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

RECEIVED
JAN 3 1963
STATE ENGINEER

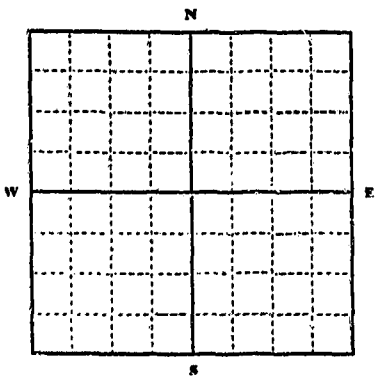
Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

1. Waldo W. & Doris Williams, of 1953 South 36th, Missoula
(Name of Appropriator) (Address) (Town)

County of Missoula State of Montana

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



SW ¼ SE¼ Sec. 13 T. 14 R. 21

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

Tract in S.W. ¼ SE¼

2. The beneficial use on which the claim is based For operating of plumbing fixtures and washing of trucks and equipment

3. Date or approximate date of earliest beneficial use; and how continuous the use has been 1958 and constant use since that time

4. The amount of groundwater claimed (in miner's inches or gallons per minute) 85 gallons

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 for irrigation

6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal Electric pump located in well house over the well, approx. 180 feet from the S.W. corner of the property.

7. The date of commencement and completion of the construction of the well, wells, or other works for withdrawal of groundwater Nov. 1958, Drilled well with 6 in. casing

8. The depth of water table 25 to 90 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 This well is a drilled well and has a depth of about 90 feet, water is pumped by the use of an electric pump.

10. The estimated amount of groundwater withdrawn each year 250,000 gallons

11. The log of formations encountered in the drilling of each well if available none available, the formation is deep top soil, clay and gravel

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

Waldo W. Williams
Signature of Owner Doris Williams

Date 2-27-63

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.

19982

783 215191

I received for filing this instrument for record on the 21 day of Dec 1973 at 2:00 o'clock P.M., permanent files of Missoula County, State of Montana

Witness my hand

MARIAN S. BRANDT County Recorder

By Merle J. Fisher Deputy

Fee $ none Paid

13

T. 13 14N R. 21 W

County Missoula

RECEIVED
MAR 31 1958
STATE ENGINEER

MONTANA BUREAU OF MINES AND GEOLOGY
Butte, Montana

WATER WELL LOG

		X	

Owner (Jack) Henry Kramer, Jr. Address R 2 Missoula

Driller John Farrell Address Corbin Mont

Date Started Feb 17 - 1958 Date Completed Feb 24 - 1958

Location: Sec. 13 T. 14 N R. 21 W ¼ sec. SW ¼ SE ¼

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

Water use: Domestic [X] Municipal [ ] Stock [ ] Irrigation [ ]

Industrial [ ] Drainage [ ] Other:

Casing: 0 ft. to 146 ft. Type Black Size 5"

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: 31 feet

Shut-in pressure, for flowing well: lb./sq. in. on: Feb 24 - 1958 (date)

Pumping water level 60 feet at gal. per min. 50

How tested: compressor

Length of test 1 hr.

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

(over)

Log of Well

Depth, feet From	Depth, feet To	Description of Material Drilled
0	18	Clay
18	26	" Gravel Sand
26	140	fine Sand water
140	146	Gravel water

Received and recorded this instrument for record this 27 day of Nov. 19 58 at 3:45 o'clock P. M. in permanent files of the County Clerk's office of Kinney County, Texas.

Witness my hand and seal of office

Emery R. Snider County Clerk

By Sherry Shelley Deputy

Fee $ 50 Paid

#24

150 183

Copy

Form No. 18
8-60

#6

T. 14 N R. 21 W
County Missoula

MONTANA BUREAU OF MINES AND GEOLOGY
Butte, Montana

RECEIVED
OCT 19 1961
STATE ENGINEER

WATER WELL LOG

Owner Waldorf-Hoerner Paper Products Co. Address Missoula, Mont
Driller Glenn Camp 705 Alder Address Missoula, Mont
Date Started June 30, 1961 Date Completed Aug 12, 1961
Location: Sec. 13 T. 14 N R. 21 W ¼ sec. SW

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

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

Casing: 5' from top of pit to 169'-4" ft. Type Seamless Size 16" pipe 64 lbs to foot
Casing: ft. to ft. Type Size
Casing: ft. to ft. Type Size
Perforated or Screened: Ft. 148'-4" to ft. 155'-4". Ft. 159'-4" to ft. 162'-4"
Type of screen or perforations Mills Knife 3/8 by 3" slots, 12 holes to the foot
Static Water level, for non-flowing well: 22'-4" from top of casing in pit feet.
Shut-in pressure, for flowing well: lb./sq. in. on: (date)

Pumping water level 38'-4" feet at 1300 gal. per min.
How tested: Test Pump
Length of test 10 hours

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

Put in exact location and file GC 3
Copies with County Clerk & Recorder

(over)

Log of Well

Depth, feet		Description of Material Drilled
From	To	
0	7'	Pit
7'	12'	Clay
12'	25'	Sand & gravel
25'	45'	Sand
45'	101'	Sandy Clay
101'	145'	Hard packed sand with some clay
145'	154'	Sand & gravel some clay
154'	159'	Sand, gravel & water
159'	167'	Tight gravel, sand & water
167'	169'	Loose gravel sand & water
169'	224 '	Tight clay with gravel some boulders no water

I certify that this is an accurate and complete record of the drilling of this well.

Date 10 Apr 1961

Driller

Drilling Company

By

Title

Date

160087

#91

Form No. 18
3-60

13

Purchasing Order # 35404

T. 14 N R. 21 W

County Missoula

MONTANA BUREAU OF MINES AND GEOLOGY
Butte, Montana

RECEIVED
OCT 16 1961
STATE ENGINEER

WATER WELL LOG

Owner Waldorf- Hoen r Paper Products Address Missoula, Montana

Driller Glenn Camp 705 Alder Address Missoula, Montana

Date Started May 23, 1957 Date Completed Sept 15, 1957

Location: Sec. 13 T. 14N R. 21W ¼ sec. SW

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

Water use: Domestic ☐ Municipal ☐ Stock ☐ Irrigation ☐

Industrial ☒ Drainage ☐ Other Paper Mill

Casing: 2' above Ground to 176'-6" ft. Type Seamless 63 lbs Size 16 O.D. 3/8" S.W.

Casing: _____ ft. to _____ ft. Type _____ Size _____

Casing: _____ ft. to _____ ft. Type _____ Size _____

Perforated or Screened: Ft. 155 to ft. 171. Ft. _____ to ft. _____

Type of screen or perforations 16' of Perforations Mills Knife 3/8" by 3" Slots 10 holes to the foot

Static Water level, for non-flowing well: 21' from top of pipe feet.

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

Pumping water level 42 feet at 1500 gal. per min.

How tested: Test Pump (Turbine Pump)

Length of test 8 hours

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

(over)

Log of Well

Depth, feet From	Depth, feet To	Description of Material Drilled
0	6'	Top soil
6'	27'	Gravel & sand some water at 24' to 27'
27'	112'	Sandy Clay
112'	116'	Clay
116'	152'	Sandy Clay
152'	171'	Good gravel and sand with water
171'	177'	Clay gravel and boulders

I received and filed this instrument for record on the 10 day of Oct 19 62 at 10:20 o'clock A.M. permanent files of Missoula County, State of Montana
Witness my hand
MARTIN S. BENNER, County Recorder
By Glenn Deputy
Fee $ 1.00 Paid

H 86

186082

Form No. 18
8-60

Well #2 13

T. 14 N R. 21 W

County Missoula

MONTANA BUREAU OF MINES AND GEOLOGY
Butte, Montana

RECEIVED
OCT 16 1961
STATE ENGINEER

WATER WELL LOG

Purchasing Order # 55404

Owner Waldorf- Hoener Paper Products Address Missoula, Montana

Driller Glenn Camp 705 Alder Address Missoula

Date Started April 30, 1957 Date Completed May 21, 1957

Location: Sec. 13 T. 14 N R. 21 W ¼ sec. SW

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

Water use: Domestic ☐ Municipal ☐ Stock ☐ Irrigation ☐

Industrial ☒ Drainage ☐ Other Paper mill

Casing: 2' above fill ft. to 174' ft. Type Seamless 63 lbs. Size 16 O.D.3/8 S.W.

Casing: ____ ft. to ____ ft. Type ____ Size ____

Casing: ____ ft. to ____ ft. Type ____ Size ____

Perforated or Screened: Ft. 148 to ft. 168. Ft. ____ to ft. ____

Type of screen or perforations Mills Knife 3/8 by 3" slots 10 slots to the foot

Static Water level, for non-flowing well: 22 feet.

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

Pumping water level 48 feet at 1500 gal. per min.

How tested: ~~Turbine test pump~~

Length of test 8 hours

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

(over)

Log of Well

Depth, feet From	Depth, feet To	Description of Material Drilled
0	7'	Top soil
7'	30'	Gravel & sand some water at 23 to 30'
30'	80'	Sandy clay some gravel
80'	112'	Sandy clay
112'	116'	Clay
116'	142'	Sandy clay
142'	169'	Big gravel, sand and water
169'	174'	Clay, gravel and boulders

I received and filed this instrument for record on the 11 day of Oct 1961 at 10:32 o'clock O.M. pursuant thereto and recorded in book of Mineral County, State of Montana
Witness my hand
MARTIN S. [illegible] County Recorder
By [illegible] Deputy
Fee $ 1.00 Paid

#87

186083

Form No. 18
8-60

Well ~~#1~~ (#3 Waldorf) 13

Purcasing Order 554 04 T. 14 N R. 21 W

County Missoula

MONTANA BUREAU OF MINES AND GEOLOGY
Butte, Montana

Purchasing Order 55404

WATER WELL LOG

RECEIVED
DEC 15 1961
STATE ENGINEER

Owner Waldorf- Hoener Paper Products Address Missoula, Montana

Driller Glenn Camp 705 Alder Address Missoula, Montana

Date Started ~~April~~ March 7, 1957 Date Completed April 10, 1957

Location: Sec. 13 T. 14 N R. 21 W ¼ sec. SW

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

Water use: Domestic ☐ Municipal ☐ Stock ☐ Irrigation ☐

Industrial ☒ Drainage ☐ Other Paper Mill

Casing: 2' above fill ft. to 173' ft. Type Seamless Size 16 O.D. 3/8 S.W.

Casing: _____ ft. to _____ ft. Type _____ Size _____

Casing: _____ ft. to _____ ft. Type _____ Size _____

Perforated or Screened: Ft. 147 to ft. 168. Ft. _____ to ft. _____

Type of screen or perforations Mills Knife 3/8 by 3" slots 8 holes to the foot

Static Water level, for non-flowing well: 22'- 10" feet.

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

Pumping water level 52' feet at 1500 gal. per min. _____

How tested: Turbine Pump

Length of test 8 hours

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

Hole was drilled to 202'. Caved in from 173'-9" to 202' during surging in developing well.

(over)

Log of Well

Depth, feet From	Depth, feet To	Description of Material Drilled
0	7	Fill dirt & gravel
7'	26'	Gravel & water (water from 23 to 26')
26'	95'	Sandy Clay
95'	112'	Sand with very small gravel & water
112'	118'	Yellow Clay
118'	132'	Sandy clay
132'	142'	Small gravel,sand,clay with water
142'	145'	Sand ,small gravel some water
145'	146'	Yellow clay
146'	168'	Coarse gravel & sand with water
168'	169'	Yellow clay and gravel
169' to	202'	Clay,gravel and boulders

I received and filed this instrument for record on the 10 day of Oct 19 91 at 10:32 o'clock A.M. in Book 4 of Missoula County, State of Montana
Witness my hand and seal
MARVIN S. SWANSON County Recorder
By Glenda Schnell Deputy
Fee $ 10.00 Paid

#88

18608 pt

Form No. 18
8-60

Well #4 13

T. 14 N R. 21 W

County Missoula

RECEIVED
OCT 15 1961
STATE ENGINEER

MONTANA BUREAU OF MINES AND GEOLOGY
Butte, Montana

WATER WELL LOG

Owner Waldorf- Hoener Paper Products Address Missoula, Montana

Driller Glenn Camp 705 Alder Address Missoula, Montana

Date Started May 13, 1960 Date Completed May 27, 1960

Location: Sec. 13 T. 14 N R. 21 W ¼ sec. SW

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

Water use: Domestic ☐ Municipal ☐ Stock ☐ Irrigation ☐

Industrial ☒ Drainage ☐ Other Paper Mill

Casing: 1' above G.L. ft. to 174' ft. Type Seamless 63 lbs. Size 16 O.D. 3/8 S.W.

Casing: ft. to ft. Type Size

Casing: ft. to ft. Type Size

Perforated or Screened: Ft 157' to ft. 169'. Ft. to ft.

Type of screen or perforations Mills Knife 3/8 by 3" slots 10 holes to foot

Static Water level, for non-flowing well: 29' feet.

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

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)

Not tested at this time.

(over)

Log of Well

Depth, feet		Description of Material Drilled
From	To	
0	7'	Gravel fill
7'	26'	Gravel and sand some water at 25'
26'	80'	Sandy clay with some gravel
80'	112'	Sandy clay
112'	120'	Clay
120'	142'	Sandy clay
142'	148'	Clay and some boulders
148'	153'	Smaller gravel and sand (some water)
153'	170'	Sand ,corser gravel and water
170'	174'	Blue - green clay (no water)

I received and filed this instrument for record on the 20 day of Oct. 19 61 at 10:15 o'clock A.M. permanent files of Missoula County, State of Montana

Witness my hand

MARION S. FOSTER County Recorder

By Eleanor J. Thomas Deputy

Fee $ 1.00 Paid

#99

186085

Form No. 18
8-60

Well #5 13

T. 14 N R. 21 W

County Missoula

MONTANA BUREAU OF MINES AND GEOLOGY
Butte, Montana

RECEIVED
OCT 19 1961
STATE ENGINEER

WATER WELL LOG

Owner Waldorf - Hoener Paper Products Address Missoula, Montana

Driller Glenn Camp 705 Alder Address Missoula, Montana

Date Started July 16, 1960 Date Completed Aug 4, 1960

Location: Sec. 13 T. 14 N R. 21 W ¼ sec. SW

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

Water use: Domestic ☐ Municipal ☐ Stock ☐ Irrigation ☐

Industrial ☒ Drainage ☐ Other Paper Mill

Casing: 7" above G.L. to 183'-7" ft. Type Seamless 64 Lbs Size 16 O.D. 3/8 S.W.

Casing: ____ ft. to ____ ft. Type ____ Size ____

Casing: ____ ft. to ____ ft. Type ____ Size ____

Perforated or Screened: Ft. 152 to ft. 170. Ft. ____ to ft. ____

Type of screen or perforations Mills Knife 3/8 by 3" 220 holes

Static Water level, for non-flowing well: 21' feet.

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

Pumping water level 35 feet at 1200 gal. per min.

How tested: Turbine pump

Length of test 8 hours

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

2" foot plug in bottom of casing

(over)

Log of Well

Depth, feet		Description of Material Drilled
From	To	
0	9'	Top soil
9'	14'	Sand & gravel
14'	20'	Gravel
20'	27'	Sand & gravel
27'	34'	Sandy clay
34'	53'	Heaving sand
53'	57'	Clay
57'	84'	Sand
84'	90'	Clay
90'	135'	Sand and fine gravel
135'	148'	Sand gravel & clay
148'	168'	Gravel, sand & water
168'	180'	Water, clay, small gravel and water
180'	183'	Sand , clay, small gravel and water
	2' concrete	plug in bottom of casing.

I received and filed this report for record on the 10 day of Oct. 1961
at 10:55 o'clock A.M.
o Nineth County Water Districts
WITNESS my hand and seal of office
By Glen J. Spence Deputy
Fee $ 2.00 paid

#90 166086

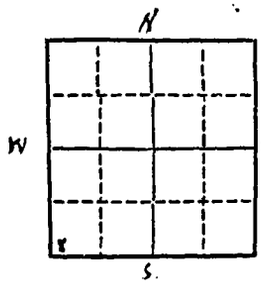
T. 14 N R. 21 W 13

County Missoula

RECEIVED
20 1960
STATE ENGINEER

MONTANA BUREAU OF MINES AND GEOLOGY
Butte, Montana

WATER WELL LOG



Owner Waldo Williams Address Box 94 Missoula, Mont

Driller John Farrell Address Arlee, Mont.

Date Started May 2 - 1960 Date Completed May 6 1960

Location: Sec. 13 T. 14 N R. 21 W ¼ sec.

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

Water use: Domestic [X] Municipal [ ] Stock [ ] Irrigation [ ]

Industrial [ ] Drainage [ ] Other:

Casing: 0 ft. to 6' put ft. Type Size

Casing: 6' ft. to 145' ft. Type steel Size 5"

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: 25 feet.

Shut-in pressure, for flowing well: lb./sq. in. on: May 6 - 1960 (date)

Pumping water level 50 feet at 37 gal. per min.

How tested: Bailer

Length of test 1 Hr

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

(over)

Log of Well

Depth, feet From	Depth, feet To	Description of Material Drilled
0	6'	fill
~~6'~~	~~[redacted]~~	
6'	28'	gravel Clay
28'	140'	Quick sand Water
140'	142'	water and gravel

I received and filed this instrument for record on the 15 day of [illegible] 1969 at 2:45 o'clock P.M. pursuant thereto of Missoula County, State of Montana

Witness my hand

MARTIN S. EKNES, County Recorder

By [illegible] Deputy

Fee $ 1.00 Paid

52

171823

GW -

Approved Stock Form—State Publishing Co., Helena, Montana—42234 Form 3

File No.

T. 14 N R. 21 W

DUPLICATE

County Missoula

STATE OF MONTANA

ADMINISTRATOR OF GROUNDWATER CODE

OFFICE OF STATE ENGINEER

STATE WATER CONSERVATION BOARD

Declaration of Vested Groundwater Rights

APR 4 1966

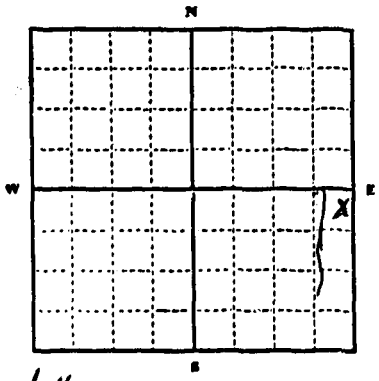
(Under Chapter 237, Montana Session Laws, 1961)

Gille — McDermott
Butzerin — McNulty
Coyle — Morton
Sullivan
Bickert — (Town)

1. Gursky Bernard A, of RR # 2 Missoula
(Name of Appropriator) (Address)

County of Missoula St. of Montana

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



So 1/2 % Sec. 24 T. 14 R. 21

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
Domestic use

3. Date or approximate date of earliest beneficial use; and how continuous the use has been Continious for past twenty years

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
One HP electric Pump

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

8. The depth of water table 50 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 Driven well approx. 35'

10. The estimated amount of groundwater withdrawn each year 10000 gal per year

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

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 Bernard A Gursky

Date 3-31-66

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.

40933

188

248793

I received and filed this Instrument for record on the 31 day of Mar 19 66 at 4:50 o'clock P.M., permanent files of Missoula County, State of Montana

Witness my hand:

Veronica R. Crouse, County Recorder

By June Beckwith Deputy

Fee $ 2.00 Paid

RECEIVED
MAR 31 1958
Montana Bureau of Mines and Geology

RECEIVED
MAR 31 1958
STATE ENGINEER

T. 14 R. 21 24

County Missoula

MONTANA BUREAU OF MINES AND GEOLOGY
Butte, Montana

WATER WELL LOG

Owner Henry Kramer Address R-2 Missoula

Driller John Farrell Address Arlee Mont.

Date Started Feb 5 - 1957 Date Completed Feb 16-1957

Location: Sec. 24 T. 14 R. 21 ¼ sec. E½ NE¼

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

Water use: Domestic [X] Municipal [ ] Stock [ ] Irrigation [ ]

Industrial [ ] Drainage [ ] Other:

Casing: 0 ft. to 140 ft. Type Black Size 5"

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: 31' feet.

Shut-in pressure, for flowing well: lb./sq. in. on: Feb 16-1958 (date)

Pumping water level 60' feet at gal. per min. 50

How tested: Compressor

Length of test 2 Hrs

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

(over)

Log of Well

Depth, feet From	Depth, feet To	Description of Material Drilled
0	27	Clay gravel
27	137	Water fine Sand
137	140	" Coarse gravel

I received and filed this instrument for record on the 27 day of May, A.D. 19 58 at 3:47 o'clock P. M., in permanent files of Missoula County, State of Montana

Witness my hand

EVELYN LIND, County Recorder

By Mary Shelley, Deputy

Fee $ 1.50 Paid

Copy

#25

1570684

Approved Stock Form—State Publishing Co., Helena, Montana—42234

File No. .....

T. 14N R. 21W

DUPLICATE

County .....

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

RECEIVED
JAN 2 1964
STATE ENGINEER

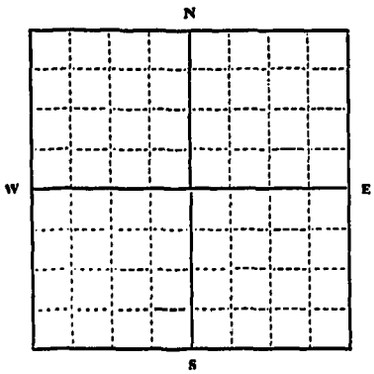
Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

1. Helene or Henry J. La Casse (Name of Appropriator), of R62 (Address) Missoula Montana (Town)

County of Missoula State of Montana

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



NE¼SE¼ Sec. 24 T. 14 R. 21

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 irrigation-garden-lawn-water Cattle

3. Date or approximate date of earliest beneficial use; and how continuous the use has been Nov. 1950 used steady since

4. The amount of groundwater claimed (in miner's inches or gallons per minute) 10-15 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 one acre of lawn and garden

6. The means of withdrawing such water from the ground and the location of each well or other means of withdrawal ¾ horse power pump under house

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

8. The depth of water table 12 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 38 ft 4 in Steel Casing

10. The estimated amount of groundwater withdrawn each year 1,200.00

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 Helene La Casse Henry J. LaCasse

Date Dec 31, 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.

17670

880

215 353

Copy

I received and filed this instrument for record on the 31 day of Dec 1963 at 10:08 o'clock A.M., permanent files of Missoula County, State of Montana

Witness my hand:

MARTIN S. BEHNKE County Recorder

By Martin S. Behnke Deputy

Fee $ 2.00 Paid

24

T. ..... R. .....

County Missoula

RECEIVED 1957 STATE ENGINEER

MONTANA BUREAU OF MINES AND GEOLOGY
Butte, Montana

WATER WELL LOG

Owner Waldorf Paper Products Company Address Missoula, Montana

Driller A.R. Newbrey Address 1518 So. 14th St Missoula, Montana

Date Started April 30, 1957 Date Completed May 21, 1957

Location: Sec. 24 T. 14N R. 21W ¼ sec. NE¼ NW¼

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

Water use: Domestic [ ] Municipal [ ] Stock [ ] Irrigation [ ]

Industrial [X] Drainage [ ] Other: .....

Casing: from 2 ft. above full level to 174 ft. Type 3/8" sidewall seamless Size 16"

Casing: ..... ft. to ..... ft. Type ..... Size .....

Casing: ..... ft. to ..... ft. Type ..... Size .....

Perforated or ~~Screened~~: Ft. 148 to ft. 168 Ft. ..... to ft. .....

Type of ~~screen~~ or perforations Mills knife: 3/8" X 3" slots 10 holes per ft. 20' of perf.

Static Water level, for non-flowing well: 22 ft. from top of pipe feet.

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

Pumping water level 48' feet at 2000 gal. per min.

How tested: Turbine pump

Length of test 8 hours

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

(over)

Log of Well

Depth, feet From	Depth, feet To	Description of Material Drilled
0	7 ft.	Top soil
7	30 ft.	Gravel and sand; some water at 23' to 30'
30	80 ft.	Sandy clay with some gravel
80	112 ft.	Sandy clay
112	116 ft.	Clay
116	142 ft.	[redacted] Sandy clay
142	169 ft.	Big gravel, sand and water
169	174	Clay, gravel and boulders

I received and filed this instrument for record on the 12 day of Feb 1957 at 7 o'clock P.M. and recorded in Mineral County, State of Montana.

Witness my hand

EVELYN LUND, County Recorder

By [illegible] Deputy

Fee $ 4.00 Paid

144948

Feb 19

24

T..... R.....

County Missoula

RECEIVED
JUL 1 1957
STATE ENGINEER

MONTANA BUREAU OF MINES AND GEOLOGY
Butte, Montana

WATER WELL LOG

Owner: Waldorf Paper Products Company Address: Missoula, Montana

Driller: A.R. Mowbray Address: 1518 So. 14th St Missoula, Montana

Date Started: March 7, 1957 Date Completed: April 10, 1957

Location: Sec. 24 T. 14N R. 21W ¼ sec. NE¼ NW¼

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

Water use: Domestic ☐ Municipal ☐ Stock ☐ Irrigation ☐

Industrial ☒ Drainage ☐ Other:

Casing: 2 ft above fill level ft. to 173'9" ft. Type 3/8 sidewall seamless Size 16"

Casing: ft. to ft. Type Size

Casing: ft. to ft. Type Size

Perforated or Screened: Ft. 147ft to ft. 168 ft. Ft. to ft.

Type of screen or perforations: Mills knife 3/8 X 3 perforations; 8 holes to foot

Static Water level, for non-flowing well: 22 ft.10 in. feet.

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

Pumping water level 52 ft from top feet at 2000 gals gal. per min.

How tested: Turbine pump

Length of test: 8 hours

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

(over)

Log of Well

Depth, feet From	Depth, feet To	Description of Material Drilled
0	7 ft.	Fill dirt and gravel
7	26 ft.	Gravel
26	95 ft	Sandy clay
95	112 ft.	Sand and very small gravel with water
112	118 ft.	Yellow clay
118	132 ft.	Sandy clay
132	142 ft.	Small gravel, sand and some clay with water
142	145 ft.	Sand and small gravel with water
145	146 ft.	Yellow clay
146	168 ft.	Coarse gravel, sand with water
168	169 ft.	Yellow clay and gravel
169	202 ft.	Clay, gravel and boulders

I certify that this is a true and correct copy of the original log of well on file in the office of Mississippi County, State of Missouri.

Witness my hand

FRED HARD County Recorder

By [illegible] Deputy

File # 208 Field

144847

Copy

F29
3

24

T..... R.....

County Missoula

RECEIVED
1957
STATE ENGINEER

MONTANA BUREAU OF MINES AND GEOLOGY
Butte, Montana

WATER WELL LOG

Owner: Waldorf Paper Products Company Address: Missoula, Montana

Driller: A. R. Mowbray Address: 1518 So. 14th St. Missoula, Montana

Date Started: May 23, 1957 Date Completed: June 15, 1957

Location: Sec. 24 T. 14N R. 21W ¼ sec. NE¼ NW¼

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

Water use: Domestic [ ] Municipal [ ] Stock [ ] Irrigation [ ]

Industrial [X] Drainage [ ] Other:

Casing: 2' above fill level ft. to 176' 6" ft. Type 3/8" sidewall seamless Size 16"

Casing: ft. to ft. Type Size

Casing: ft. to ft. Type Size

Perforated or ~~screened~~: Ft. 155 to ft. 171 Ft. to ft.

Type of ~~screen~~ or perforations: Mills knife; 3/8" X 3" slots, 10 holes per ft. 16' of perf.

Static Water level, for non-flowing well: 21 ft. from top of pipe feet.

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

Pumping water level 42 ft. from top feet at 2000 gal. per min.

How tested: Turbine pump

Length of test: 8 hours

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

(over)

Log of Well

Depth, feet From	Depth, feet To	Description of Material Drilled
0	6 ft.	Top soil
6	27 ft.	Gravel and sand; some water at 24 to 27'
27	112 ft.	Sandy clay
112	116 ft.	Clay
116	152 ft.	Sandy clay
152	171 ft.	Good gravel and sand with water
171	177 ft.	Clay gravel and boulders

I received this log in the Commission on the 11 day of July 1957 at 2:02 o'clock P.M. in the Office of Mesilla County, State of New Mexico.

WITNESS my hand

EVERETT [illegible] County Recorder

By [illegible] Deputy

Fee $2.00 Paid

F-9

1/2

144946

Copy

GW 2

Approved Stock Form—State Publishing Co., Helena, Montana—38496

File No.....

T. 14N R. 21W MPM

DUPLICATE

RECEIVED DEC 30 1963 STATE ENGINEER

County Missoula

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

Top of Ground
(Elev. above sea level.....)

Notice of Completion of Groundwater Appropriation by Means of Well

(Under Chapter 237, Montana Session Laws, 1961)

Owner Waldorf-Hoerner Paper Products Company Address Drawer D, Missoula

Driller Glenn Camp Address Missoula, Montana

Date of Notice of Appropriation of Groundwater.....

Date well started June 30, 1961 Date Completed Aug. 12, 1961

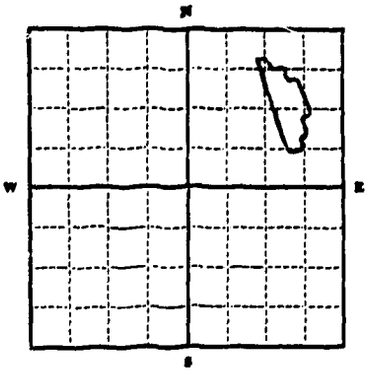
Type of well 16" od, 3/8" wall, (dug, driven, bored or drilled) Equipment Used Cable tool (Churn, drill, rotary or other)

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.

See log on file in Missoula County Courthouse

Size of Drilled Hole	Size and Weight of Casing	From (Feet)	To (Feet)	PERFORATIONS Kind Size	From (Feet)	To (Feet)
				3/8" slot, 3" long, 8 holes per ft.	148'	155'
					159'	162'



NW ¼ Sec. 24 T. 14N R. 21W
Indicate location of well and place of use, if possible. Each small square represents 10 acres.

Show exact depth of bottom. 169'4"

Static Water Level for non-flowing Well 22 feet.

Shut-in Pressure for Flowing Well.....

Pumping Water Level 38 feet at 1300 gal. per minute.

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

How Tested Turbine pump Length of Test 8 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).....

No 7
Driller's License Number

Glenn Camp
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.

15160

214860

558

Copy

I received and filed this instrument for record on the 26 day of Dec 1963 at 10:26 o'clock A M., permanent files of Missoula County, State of Montana

Witness my hand:
MARTIN S. BEHNER, County Recorder

By Martin S. Behner Deputy

Fee $ 2.00 Paid

GW 2

Approved Stock Form—State Publishing Co., Helena, Montana—38496

File No.....

T. 14N R. 21W MPM

DUPLICATE

RECEIVED DEC 30 1963 STATE ENGINEER

County Missoula

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

Top of Ground
(Elev. above sea level.....)

Notice of Completion of Groundwater Appropriation by Means of Well

(Under Chapter 237, Montana Session Laws, 1961)

Owner Waldorf-Hoerner Paper Products Company Address Drawer D, Missoula

Driller Glenn Camp Address Missoula, Montana

Date of Notice of Appropriation of Groundwater.....

Date well started July 16, 1960 Date Completed Aug. 4, 1960

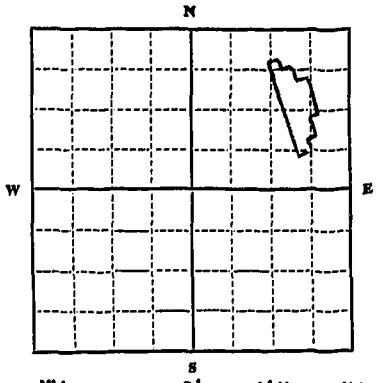
Type of well 3/8" wall, 16" od, smls, drilled (dug, driven, bored or drilled) Equipment Used Cable tool (Churn, drill, rotary or other)

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.

See log on file in Missoula County Courthouse

Size of Drilled Hole	Size and Weight of Casing	From (Feet)	To (Feet)	PERFORATIONS Kind Size	From (Feet)	To (Feet)
				3/8" slot 3" long, 8 holes per ft.	152'	170'



NW ¼ Sec. 24 T. 14N R. 21W

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

Show exact depth of bottom. 183' 7"

Static Water Level for non-flowing Well 21 feet.

Shut-in Pressure for Flowing Well.....

Pumping Water Level 35 feet at 1200 gal. per minute.

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

How Tested Turbine pump Length of Test 8 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).....

Driller's License Number 107

Glenn Camp
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.

15159

557

214859

Copy

I received and filed this instrument on record on the 26 day of Dec 1983 at 10:26 o'clock A M., permanent files of Missoula County, State of Montana

Witness my hand:

MARTIN S. BEHNER, County Recorder

By Martin S. Behner Deputy

Fee $ 2.00 Paid

GW 2

Approved Stock Form—State Publishing Co., Helena, Montana—38496

File No.....

T. 14N R. 21W MPM

DUPLICATE

County Missoula

RECEIVED
DEC 30 1963
STATE ENGINEER

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

Top of Ground
(Elev. above sea level.....)

Notice of Completion of Groundwater Appropriation by Means of Well

(Under Chapter 237, Montana Session Laws, 1961)

Owner Waldorf-Hoerner Paper Products Company Address Drawer D, Missoula

Driller Glenn Camp Address Missoula, Montana

Date of Notice of Appropriation of Groundwater.....

Date well started May 3, 1960 Date Completed May 27, 1960

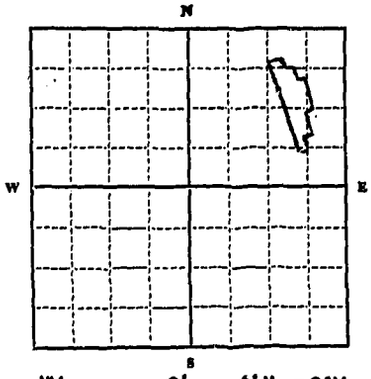
Type of well 16" od, 3/8" wall, smls, drilled (dug, driven, bored or drilled) Equipment Used Cable tool (Churn, drill, rotary or other)

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.

See log on file in Missoula County Courthouse

Size of Drilled Hole	Size and Weight of Casing	From (Feet)	To (Feet)	PERFORATIONS Kind Size	From (Feet)	To (Feet)
				3/8" slot 3" long, 8 holes per ft.	157'	169'



NW ¼ Sec. 24 T. 14N R. 21W
Indicate location of well and place of use, if possible. Each small square represents 10 acres.

Show exact depth of bottom. 174'

Static Water Level for non-flowing Well 29 feet.

Shut-in Pressure for Flowing Well.....

Pumping Water Level Not pumped feet at ..... gal. per minute.

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

How Tested Turbine pump Length of Test 8 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).....

No 7
Driller's License Number

Glenn Camp
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.

15158

214858

556

Copy

I received and filed this instrument for record on the 24 day of Dec 1963 at 10:27 o'clock A M., permanent files of Missoula County, State of Montana

Witness my hand:

MARTIN E. BEHNKE, County Recorder

By Martin E. Behnke Deputy

Fee $ 2.00 Paid

GW 2

Approved Stock Form—State Publishing Co., Helena, Montana—38496

File No.....

DUPLICATE

RECEIVED
DEC 30 1963
STATE ENGINEER

T 14N R 21W MPM

County Missoula

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

Top of Ground
(Elev. above sea level.....)

Notice of Completion of Groundwater Appropriation by Means of Well

(Under Chapter 237, Montana Session Laws, 1961)

Owner Waldorf-Hoerner Paper Products Company Address Drawer D, Missoula

Driller Glenn Camp Address Missoula, Montana

Date of Notice of Appropriation of Groundwater.....

Date well started Mar. 7, 1957 Date Completed April 10, 1957

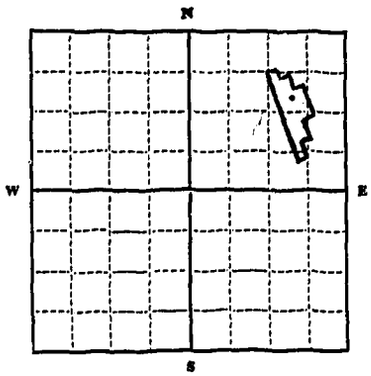
Type of well 16" od, 3/8" wall, smls, drilled (dug, driven, bored or drilled) Equipment Used Cable tool (Churn, drill, rotary or other)

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.

See log on file in Missoula County Courthouse

Size of Drilled Hole	Size and Weight of Casing	From (Feet)	To (Feet)	PERFORATIONS Kind Size	From (Feet)	To (Feet)
				3/8" slot 3" long, 8 holes per ft.	147'	168'



NW ¼ Sec. 24 T. 14N R. 21W
Indicate location of well and place of use, if possible. Each small square represents 10 acres.

Static Water Level for non-flowing Well 22' 10" feet.

Shut-in Pressure for Flowing Well.....

Pumping Water Level 52' feet at 1500 gal. per minute.

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

How Tested Turbine Pump Length of Test 8 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).....

Show exact depth of bottom. 173'9"

No 7
Driller's License Number

Glenn Camp
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.

15155

553

314855

I received and filed this instrument for record on the 26 day of Dec. 1963 at 11:18 o'clock A.M., permanent files of Missoula County, State of Montana

Witness my hand:

MARTIN S. BEHNER, County Recorder

By Marlene S. Behner Deputy

Fee $ 2.00 Paid

GW 2

Approved Stock Form—State Publishing Co., Helena, Montana—38496

File No.....

DUPLICATE

RECEIVED
DEC 30 1963
STATE ENGINEER

T. 14N R. 21W MPM

County Missoula

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

Top of Ground

(Elev. above sea level.....)

Notice of Completion of Groundwater Appropriation by Means of Well

(Under Chapter 237, Montana Session Laws, 1961)

Owner Waldorf-Hoerner Paper Products Company Address Drawer D, Missoula

Driller Glenn Camp Address Missoula, Montana

Date of Notice of Appropriation of Groundwater.....

Date well started Apr. 30, 1957 Date Completed May 21, 1957

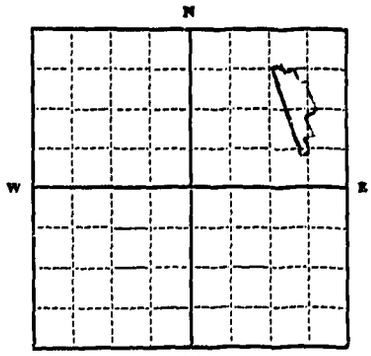
Type of well 16" od, 3/8" wall, smls, drilled (dug, driven, bored or drilled) Equipment Used Cable tool (Churn, drill, rotary or other)

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.

See log on file in Missoula County Courthouse

Size of Drilled Hole	Size and Weight of Casing	From (Feet)	To (Feet)	PERFORATIONS Kind Size	From (Feet)	To (Feet)
				3/8" slot 3" long, 8 holes per ft.	148'	168'



NW ¼ Sec. 24 T. 14N R. 21W

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

Static Water Level for non-flowing Well 22 feet.

Shut-in Pressure for Flowing Well.....

Pumping Water Level 48 feet at 1500 gal. per minute.

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

How Tested Turbine pump Length of Test 8 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).....

Show exact depth of bottom. 174 ft.

Mo 7
Driller's License Number

Glenn Camp
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.

15156

554

814856

I received and filed this instrument for record on the 26 day of Dec. 1973 at 10:20 o'clock A.M., permanent files of Missoula County, State of Montana

Witness my hand:
MARTIN E. BEHNKE, County Recorder
By Marjorie L. Palmer Deputy
Fee $2.00 Paid

GW 2

Approved Stock Form—State Publishing Co., Helena, Montana—38496

File No.....

DUPLICATE

RECEIVED
DEC 30 1963
STATE ENGINEER

T. 14N R. 21W MPM

County Missoula

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

Top of Ground

(Elev. above sea level.....)

Notice of Completion of Groundwater Appropriation by Means of Well

(Under Chapter 237, Montana Session Laws, 1961)

Owner Waldorf-Hoerner Paper Products Company Address Drawer D, Missoula

Driller Glenn Camp Address Missoula

Date of Notice of Appropriation of Groundwater.....

Date well started May 23, 1957 Date Completed June 15, 1957

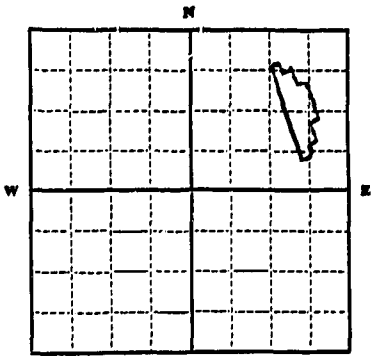
Type of well 16" od, 3/8" wall, smls, drilled (dug, driven, bored or drilled) Equipment Used Cable tool (Churn, drill, rotary or other)

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.

See log on file in Missoula County Courthouse

Size of Drilled Hole	Size and Weight of Casing	From (Feet)	To (Feet)	PERFORATIONS Kind Size	From (Feet)	To (Feet)
				3/8" slot 3" long, 8 holes per ft.	155'	171'



NW ¼ Sec. 24 T. 14N R. 21W

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

Static Water Level for non-flowing Well 21 feet.

Shut-in Pressure for Flowing Well.....

Pumping Water Level 42 feet at 1500 gal. per minute.

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

How Tested Turbine pump Length of Test 8 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).....

Show exact depth of bottom. 176' 6"

No 7
Driller's License Number

Glenn Camp
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.

15157

555

814857

I received and filed this instrument for record on the 26 day of Dec. 1963 at 10:32 o'clock A. M., permanent files of Missoula County, State of Montana

Witness my hand:
MARTIN E. BEHNER, County Recorder
By Marjorie Lehner Deputy
Fee $ 3.00 Paid

GW 1

File No.....

DUPLICATE

T 14N R 21W MPM 24

County Missoula

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

RECEIVED
DEC 30 1963
STATE ENGINEER

Notice of Appropriation of Groundwater

(Under Chapter 237, Montana Session Laws, 1961)

1. I, Waldorf-Hoerner Paper Products Co, of Missoula
(Name of Appropriator) (Address) (Town)
County of....., State of....., intend to appropriate groundwater in accordance with Chapter 237, Montana Session Laws of 1961.

2. The beneficial use to which water is to be applied is Industrial Use
(describe lands to be benefited, if for irrigation)

3. The rate of use in gallons per minute or miner's inches of groundwater claimed 20,000 gpm

4. The annual period (inclusive dates) of intended use Continuous

5. The probable or intended date of first beneficial use by April 1957

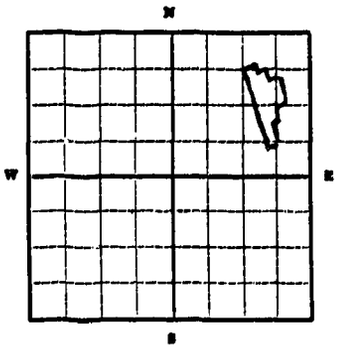
6. The probable or intended date of commencement and completion of the well* or wells* Start in March 1957

7. The location, type, size and depth of well or wells contemplated Up to ten wells (10) 16" dia., 200' deep, in the plant area per sketch

8. The probable or estimated depth of the water table or artesian aquifer 30 feet

9. Name, address and license number of the driller engaged Glen Camp, Missoula License No. 7

10. Give such other similar information as may be useful in carrying out the policy of this act.....



NW ¼ Sec. 24 T 14N 21W

Locate well or other means of development as accurately as possible on the plat.

Signature of Appropriator W. C. Hodge Asst Secy

Date December 23, 1963

* As defined in the Code Sec. 1 (c) "Well" means any artificial opening or excavation in the ground, however made, by which groundwater can be obtained or through which it flows under natural pressures or is artifically withdrawn."

Three copies of this notice are to be filed with 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.

15154

552

214854

I received and filed this instrument for record on the 26 day of Dec. 1963 at 10:16 o'clock A.M., permanent files of Missoula County, State of Montana

Witness my hand:

MARTIN S. BEHNER, County Recorder

By Martin S. Behner Deputy

Fee $ 2.00 Paid

GW 2

Approved Stock Form—State Publishing Co., Helena, Montana—42329

File No.....

T. 14 N R. 21 W 24

DUPLICATE

County Missoula

LOG

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

Notice of Completion of Groundwater Appropriation by Means of Well

DEVELOPED AFTER JANUARY 1, 1962

(Under Chapter 237, Montana Session Laws, 1961)

Top of Ground

(Elev. above sea level.....)

0-3	Gravel & Brown Clay
3-23	Sand and Gravel
23-32	Sandy Clay and Water
32-58	Sand and Clay
58-60	Small Gravel & Water
60-62	Tan Clay
62-77	Sand and water
77-79	Sandy Clay
79-138	Silty sand & Water
138-165	Sand, Gravel & Water
165-168½	Tan Clay

Owner HOERNER WALDORF Address Missoula, Montana

Driller CAMP WELL DRILLING & PUMP SUPPLY Address 1522 S. 14th W. Missoula, Montana

Date of Notice of appropriation of groundwater.....

Date well started June 19, 1970 Date completed June 24, 1970

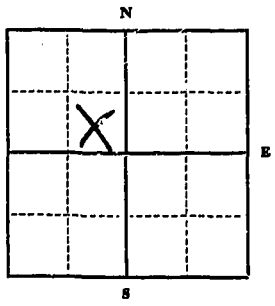
Type of well Drilled (Dug, Driven, bored or drilled) Equipment used Churn Drill (Churn drill, rotary or other)

Water use: Domestic ☐ Municipal ☐ Stock ☐ Irrigation ☐ Industrial ☒ Drainage ☐ Other ☐

Indicate on the diagram the character and thickness of the different strata met 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 Drilled Hole	Size and Weight of Casing	From (Feet)	To (Feet)	PERFORATIONS Kind Size	From (Feet)	To (Feet)
6" I.D.	6" I.D. 17 lb per ft.	1'6" above g.l.	168½'	Mills knife 3/2 x 3"	152' 5 holes to rd 6" apart total 100 holes	162'

Doc. No. 292831
Filed for record this 8 day of July A. D. 19 70, at 2:35 o'clock p M.



Static Water Level for non-flowing well 27 feet.

Shut-in Pressure for Flowing Well.....

Pumping Water Level 32 feet at 125 gal. per minute.

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

How Tested Air Compressor

Length of Test 5 hours

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

.....¼..... Sec. 24 T. 14N R. 21W

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 or other data (i.e.: Lot, Block and Addition).

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.

License # 7
Driller's License Number

Glenn Camp
Driller's Signature CAMP WELL DRILLING & PUMP SUPPLY

46660

2012 292831

I received and filed this Instrument for record on the 8 day of July 1970 at 3:35 o'clock P.M. permanent files of Missoula County, State of Montana

Witness my hand:

Veramae R. Crouse, County Recorder

By M. M. McGinnis Deputy

Fee $2.00 Paid

GW-

STATE WATER CONSERVATION BOARD

Approved Stock Form—State Publishing Co., Helena, Montana—42234

25

File No. MAR 16 1966

T. 14 N R. 21 W

DUPLICATE

Bilic McDermott
Bu McNulty
Co Morton
Dunnigan Sullivan
Eickart

County Missoula

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

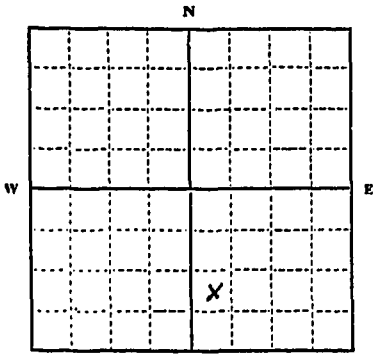
Declaration of Vested Groundwater Rights

(Under Chapter 237, Montana Session Laws, 1961)

1. Warren W Danforth (Name of Appropriator), of Rt #2 (Address) Missoula (Town)

County of Missoula State of Montana

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



NE 1/4 SW Sec. 25 T. 14 R. 21

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: Domestic purposes

3. Date or approximate date of earliest beneficial use; and how continuous the use has been: Since 1958 used continuously since

4. The amount of groundwater claimed (in miner's inches or gallons per minute): approximately 40 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: pump

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

8. The depth of water table: not known

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 45 ft. 4 in casing

10. The estimated amount of groundwater withdrawn each year: Do not know

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

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: not known

Signature of Owner: Warren W Danforth

Date: 3-14-66

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.

40892

#1583

248048

I received and filed this Instrument for record on the 14 day of Mar. 1966 at 1:00 o'clock P.M., permanent files of Missoula County, State of Montana

Witness my hand:

Veramae B. Crowe County Recorder

By Doretta A. Cunning Deputy

Fee $ 2.00 Paid

Cash

GW1

File No. ~~FATE~~ WATER CONSERVATION BOARD

T 14N R 21W 25

ORIGINAL

APR 25 1966

County Missoula

Bille
Butzerin
Coyle
Darlinton
Dickert
McDonald
McNulty
Merton
Sullivan

STATE OF MONTANA
~~ADMINISTRATOR OF~~ GROUNDWATER CODE
OFFICE OF STATE ENGINEER

Notice of Appropriation of Groundwater

(Under Chapter 237, Montana Session Laws, 1961)

1. I, Waldorf - Hoerner Paper Products Company (Name of Appropriator), of Drawer D, (Address) Missoula (Town) County of Missoula, State of Montana, intend to appropriate groundwater in accordance with Chapter 237, Montana Session Laws of 1961.

2. The beneficial use to which water is to be applied is Industrial & Domestic supply necessary for operation of paper products plant.
(describe lands to be benefited, if for irrigation)

3. The rate of use in gallons per minute or miner's inches of groundwater claimed Sixteen Thousand Gallons Per Minute

4. The annual period (inclusive dates) of intended use Jan. 1, through Dec. 31,

5. The probable or intended date of first beneficial use June 1, 1966

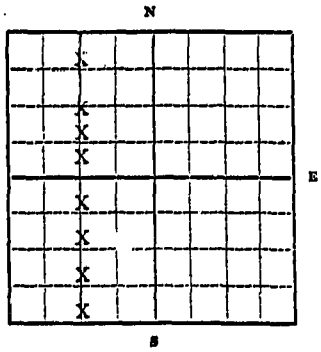
6. The probable or intended date of commencement and completion of the well* or wells* Start 3/28/66; Complete one 2000 GPM unit every thirty days.

7. The location, type, size and depth of well or wells contemplated Sec 25 T 14N R 21W 18" to 24" wells; 150' to 180' deep

8. The probable or estimated depth of the water table or artesian aquifer Aquifer 115 - 160; Water table approximately eight feet from surface.

9. Name, address and license number of the driller engaged Liberty Drilling & Pump Co. William F. Osborne, 2500 Reserve Street, Missoula, Montana Water Well Contractor License #52, Public Contractor License #1592A

10. Give such other similar information as may be useful in carrying out the policy of this act. By the drilling of test wells and through investigations conducted by the US Geological Survey, Montana Bureau Of Mines and Appropriator. A large aquifer capable of producing clear sand free, uncontaminated water has been found at this location. Through the drilling of wells and proper management thereafter, Appropriator plans to develop this as a dependable long range source of water supply for their operations in this area.



SW ¼ ~~X~~ Sec. 25 T14N R 21W

Locate well or other means of development as accurately as possible on the plat.

Signature of Appropriator Waldorf Hoerner Paper Prod. Co.
x W.C. Hodge Asst. Secy

Date April 14, 1966

* As defined in the Code Sec. 1 (c) "Well" means any artificial opening or excavation in the ground, however made, by which groundwater can be obtained or through which it flows under natural pressures or is artifically withdrawn."

Three copies of this notice are to be filed with 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.

41003

1596 249484

I received and filed this Instrument for record on the 21 day of April 1966 at 10:30 o'clock A. M., permanent files of Missoula County, State of Montana

Witness my hand:

Veramae R. Crouse, County Recorder

By M. M. Conaghan, Deputy

Fee $2.00 Paid

GW 1

Approved Stock Form—State Publishing Co., Helena, Montana—39069

25

File No.

T 14N R 21W

TRIPLICATE

County Missoula

RECEIVED JUN 13 1973 MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

Notice of Appropriation of Groundwater

(Under Chapter 237, Montana Session Laws, 1961)

1. I, Roerner Waldorf Corporation (Name of Appropriator), of Drawer D (Address) Missoula (Town)
County of Missoula, State of Montana, intend to appropriate groundwater in accordance with Chapter 237, Montana Session Laws of 1961.

2. The beneficial use to which water is to be applied is Industrial

(describe lands to be benefited, if for irrigation)

3. The rate of use in gallons per minute or miner's inches of groundwater claimed
2000 GPM

4. The annual period (inclusive dates) of intended use Continuous

5. The probable or intended date of first beneficial use July 1973

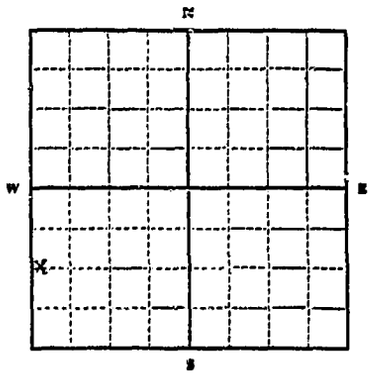
6. The probable or intended date of commencement and completion of the well* or wells*
June, 1973 July, 1973

7. The location, type, size and depth of well or wells contemplated Mill Division - Drilled - Eighteen inch - 162 ft.

8. The probable or estimated depth of the water table or artesian aquifier 10 feet from surface

9. Name, address and license number of the driller engaged William F. Osborne dba/Liberty Drilling Company, Water Well Contractors License No. 52, Public Contractors License No. 1592 Class

10. Give such other similar information as may be useful in carrying out the policy of this act Drilling, Furnishing and Installing Casing & Drive Shoes as necessary, Sampling, Screening, Developing and Capacity Testing an eighteen inch well



SW ¼ Sec. 25 T. 14N R. 21W
Locate well or other means of development as accurately as possible on the plat.

File 2500, 33394

Date June 12, 1973

Time 8:00 a.m.

X Signature of Appropriator Roy Courtney Jr.

Date June 11, 1973

* As defined in the Code Sec. 1 (c) "Well" means any artificial opening or excavation in the ground, however made, by which groundwater can be obtained or through which it flows under natural pressures or is artificially withdrawn."

Three copies of this notice are to be filed with 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.

53,5017

2500 333194

I received and filed this Instrument for record on the 12 day of Jan 1973 at 8:00 o'clock A.M., permanent files of Missoula County, State of Montana

Witness my hand:

Dorothy L. Head, County Recorder

By Linda M Sloan, Deputy

Fee $ 2.00 Paid ca.

GW 2

Approved Stock Form—State Publishing Co., Helena, Montana—4232

STATE WATER CONSERVATION BOARD

File No. W - H No. Seven

NOV 9 1966

T. 14N R. 21W 25

DUPLICATE

County Missoula

LOG

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

Notice of Completion of Groundwater Appropriation by Means of Well

DEVELOPED AFTER JANUARY 1, 1962

(Under Chapter 237, Montana Session Laws, 1961)

Top of Ground

(Elev. above sea level Approx. 3088')

Formations Log:

0 - 1½ Black dirt.

1½ - 19 Sand, gravel, cobblestones & boulders with some tan to gray silt mixed in.

19 - 27 Tan silt mixed with gravel & cobblestones.

27 - 41 Fine brown sand mixed with a few gravels & tan clay in thin alternate layers.

41 - 53 Tan sandy clay with some gravel imbedded.

53 - 64 Fine gray sand mixed with tan silt.

64 - 90 Brown sandy clay with gravel imbedded.

90 - 94 Gray sand and gravel mixed with tan silt.

94 - 104 Gravel imbedded in reddish tan clay.

104 - 107 Very fine tan silty sand, gravel and cobblestones.

107 - 110 Very fine tan silty sand & coarse gravel imbedded in tan clay.

110 - 113 Fine tan sand mixed with very coarse gravel & cobblestones.

113 - 121 Fine tan sand with fairly well graded gravels.

121 - 134 Fine tan sand with well graded fine to coarse gravels. contd.

Show exact depth of bottom.

Bottom of hole 163'

Owner Waldorf - Hoerner Paper Products Co. Address Missoula, Montana

Driller Liberty Drilling Co. Address Missoula, Montana

Date of Notice of appropriation of groundwater 4/19/66

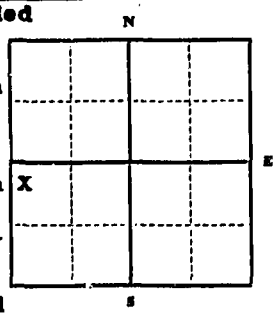
Date well started 8/23/66 Date completed 9/12/66

Type of well Drilled (Dug, Driven, bored or drilled) Equipment used Cable Tools (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 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 Drilled Hole	Size and Weight of Casing	From (Feet)	To (Feet)	PERFORATIONS Kind Size	From (Feet)	To (Feet)
18"	18" OD x .375	+30"	111	18" telescope size Johnson close rodded Armco Iron Well Screen	109	144
		144	163	Tail pipe with a solid closed bottom		



Static Water Level for non-flowing well 10.9" feet.

Shut-in Pressure for Flowing Well Non-f

Pumping Water Level 56.17" feet at 2000 gal. per minute.

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

How Tested Air Lift Pump

Length of Test 34½ hours

Remarks: (Gravel packing, cementing, packers, type of shutoff). An 18 inch telescope size Johnson close rodded Armco Iron Well Screen is set from 109 feet to 144 feet. The slot openings are as follows:

(Continue on reverse side)

NW ¼ SW Sec. 25 T 14N R. 21W

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

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).

Pulp & Paper Mill

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.

32
Driller's License Number

William E. Osborne
Driller's Signature

41,594

Formations Log contd,

134 - 139 Fine tan sand with fairly well graded gravels.
139 - 144 Fine tan sand mixed with coarse gravels and cobblestones.
144 - 152 Fine sand and coarse gravel mixed with reddish brown clay.
152 - 163 Rock. Gray Limestone.

110 - 113	90/1000 slot
113 - 121	90/1000 slot
121 - 134	100/1000 slot
134 - 139	90/1000 slot
139 - 144	80/1000 slot

The screen is fitted with a tightly swaged lead packer top and a 19 foot tail pipe with a solid closed bottom. All water entering the well is coming through the slots in this screen.

Development Log:

Well was initially developed with a solid block surge, a valved surge and sand pump until gravel pack was built up around screen and formation stabilized. Development was then completed by surging and pumping with compressed air. During the air development phase well was pumped in excess of 4000 gallons per minute.

Water Log:

Well was pumped at rates exceeding 4000 gallons per minute during development phase with compressed air.. While accurate drawdown readings are not obtainable using this method of pumping all indications are that this well will produce 2000 gallons per minute with less than forty feet of drawdown from static level. When pumping was stopped well recovered nineteen minutes after pumping was stopped. Static water level at completion of well was 10'9" from surface.

The water rises in the well
10'9" from surface.

1663

255316

GW1

File No. ..... no number

DUPLICATE

T 14N R 21W

County Missoula

STATE OF MONTANA
ADMINISTRATOR OF GROUNDWATER CODE
OFFICE OF STATE ENGINEER

CONSERVATION BOARD
18 1966

Notice of Appropriation of Groundwater

(Under Chapter 237, Montana Session Laws, 1961)

1. I, Waldorf - Hoerner Paper Products Company (Name of Appropriator), of Drawer D, (Address) Missoula (Town) County of Missoula, State of Montana, intend to appropriate groundwater in accordance with Chapter 237, Montana Session Laws of 1961.

2. The beneficial use to which water is to be applied is Industrial & Domestic supply necessary for operation of paper products plant.
(describe lands to be benefited, if for irrigation)

3. The rate of use in gallons per minute or miner's inches of groundwater claimed
Sixteen Thousand Gallons Per Minute

4. The annual period (inclusive dates) of intended use Jan. 1. through Dec. 31.

5. The probable or intended date of first beneficial use June 1. 1966

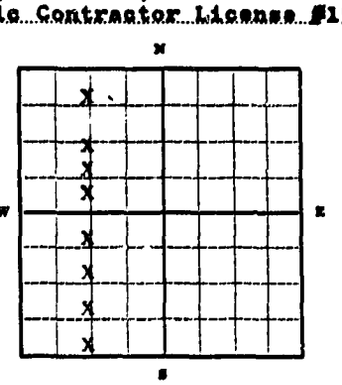
6. The probable or intended date of commencement and completion of the well* or wells*
Start 3/28/66; Complete one 2000 GPM unit every thirty days.

7. The location, type, size and depth of well or wells contemplated Sec 25 T 14N R 21W
18" to 24" wells; 150' to 180' deep

8. The probable or estimated depth of the water table or artesian aquifer Aquifer 115 - 160; Water table approximately eight feet from surface.

9. Name, address and license number of the driller engaged Liberty Drilling & Pump Co. William F. Osborne, 2500 Reserve Street, Missoula, Montana Water Well Contractor License #2, Public Contractor License #1592A

10. Give such other similar information as may be useful in carrying out the policy of this act By the drilling of test wells and through investigations conducted by the US Geological Survey, Montana Bureau Of Mines and Appropriator. A large aquifer capable of producing clear sand free, uncontaminated water has been found at this location. Through the drilling of wells and proper management thereafter, Appropriator plans to develop this as a dependable long range source of water supply for their operations in this area.



SW ¼ ¼ Sec 25 T 14N R 21W

Locate well or other means of development as accurately as possible on the plat.

Signature of Appropriator Waldorf Hoerner Paper Prod Co.
W.C. Hodge Asst. Secy

Date April 14, 1966

* As defined in the Code Sec. 1 (c) "Well" means any artificial opening or excavation in the ground, however made, by which groundwater can be obtained or through which it flows under natural pressures or is artifically withdrawn."

Three copies of this notice are to be filed with 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.

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