

Considered: _____

WATER PERMIT NO. 2121-2

PH# 394-4162

HAP No. _____

Name of Applicant City of Rapid City

Post Office Address Water Division 306-6th St. Rapid City SD 57701

Amount of Water Claimed 0.17 cfs Total Acres NA

Source of Water Supply groundwater

Water to be used for municipal County Pennington

About _____ miles _____ of Rapid City (near Canyon Lake)

PROOF OF PUBLICATION: Received _____ Not Received _____

APPLICATION: Approved _____ Subject to _____

F.F. & C.L. Adopted _____ Not Approved _____ Deferred _____

PRIORITY _____ Date Received 5/30/90 Fee \$225 Remarks increase diversion rate of VR433-2 from 0.84 cfs to 1.01 cfs

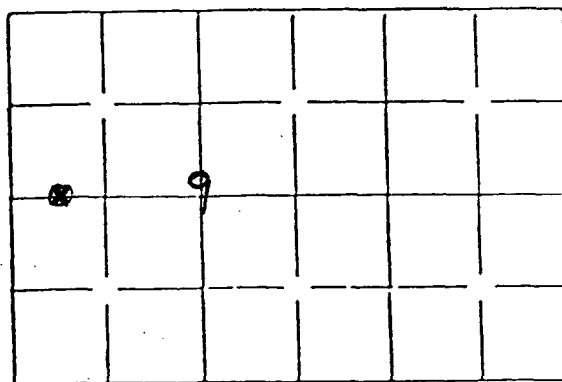
Corrected Application Received _____ Period of Annual Use _____

WATER QUALITY APPROVAL RECEIVED NA APPROVED/CONDITIONAL (Circle one)

WI-1 Description same as Application YES _____ NO _____ REMARKS _____

Diversion Point 2625 ft S21°31'E of NW corner Sect 9 T1N R7E

Land to be Irrigated NA



Well Log: Driller _____ Licensed YES _____ NO _____

Depth of Well 1460' REMARKS _____

Type of Map Topo PREPARED BY Dan Bierke Reviewed and the Number assigned on 4/2/90 By Eric Threlkeld

523 E. Capitol
Pierre, SD 57501
(605) 773-3352No. 2121-2 Hydrologic Unit 10120110
Map No. _____ Basin Upper Cheyenne
Newspaper Rapid City Journal P.O. Box 450 57709**Application For Permit To Appropriate Water Within The State Of South Dakota**Check use of water: Industrial ☐ Commercial ☐ Municipal ☒ Other Common Distribution System ☐
Rural Water System ☐ Suburban Housing ☐ Geothermal Heat ☐ Institutional ☐ Recreational ☐
Domestic ☐ (above 18gpm) Other ☐

Type of Application: Check one or more of the following

New ☐ Vested Right ☐ Future Use ☐ Change Use ☐☒ Amend Permit No. 433-2 with old priority date retainedChange diversion point(s) ☐ Add diversion point(s) ☐ Other ☐☐ Application to: Change diversion point(s) ☐ Add diversion point(s) ☐ on Permit No. _____☐ Construction to use water reserved by Future Use Permit No. _____1. Name of Applicant Water Division, City of Rapid City Phone No. 394-4162Post Office Address 300 - 6th. Street, Rapid City State SD Zip Code 57701
(Street, RR or Box) (City)2. Amount of water claimed (c.f.s.) 1.01 c.f.s.3. Source of water supply Ground Water - Minnelusa Formation4. Location of point of diversion 2625 feet, S 21° 31' E. of the N.W. Cor.,Sec. 9, T 1 N, R7ECounty Pennington5. Counties where water will be used Pennington6. Annual period during which water is to be used ~~All Year~~ January 1 - December 31

7. Give a brief description of proposed project. When available include any preliminary engineering report or other reports or information that will help explain the project. (Attach sheet if more space is needed)

Rapid City asks that Permit No. 433-2 be amended from 0.84 c.f.s.
to 1.01 c.f.s.Attachments: Attach Form 2A if diversion from a well or dugout, or if storage of water, is proposed. Attach map
(see instruction)STATE OF SOUTH DAKOTA)
County of Pennington)^{ss}I, Kerth T. Carlyle the applicant, certify that I have read
this application, have examined the attached map and that the matters stated are true and that I intend, and am able to
complete the necessary construction.

Signed _____

Subscribed and sworn to before me this 14th day of March 19 90Kay J. Reppechop
Notary Public430-92



LOCATION OF POINTS OF DIVERSION

City of Rapid City Water Treatment Plant:
North 71° 39' West, 1205 ft. from East 1/4 corner of Section Three (3), Township One (1) North, Range Seven (7) East of the Black Hills Meridian.

Sioux Park "Girl Scout" Gallery:
1270 ft. North 51° 05' East of Southwest corner of Section Three (3), Township One (1) North, Range Seven (7) East of the Black Hills Meridian.

Meadowbrook Gallery:
2032 ft. South 31° 41' West of Northeast corner of Section Nine (9), Township One (1) North, Range Seven (7) East of the Black Hills Meridian.

Jackson Springs Gallery:
2943 ft. North 58° 54' West of Southeast corner of Section Eight (8), Township One (1) North, Range Seven (7) East of the Black Hills Meridian.

Pactola Reservoir (inlet to the service spillway):
South 19° East, 3740 ft. of Northwest corner of Section Two (2), Township One (1) North, Range Five (5) East of the Black Hills Meridian.

LOCATION OF PROPOSED ALTERNATE POINTS OF DIVERSION FOR THE CITY OF RAPID CITY WATER RIGHTS TRANSFER

[Signature]
2-4-92
DANIEL L. BJERKE, P. E.
RAPID CITY WATER AND WATER RECLAMATION DIVISION MANAGER



**SOUTH DAKOTA
WATER PERMIT No. 2121-2**

Date of first receipt of application March 19, 1990.

Date of return to applicant for correction, amendments or changes March 20, 1990.

Date of receipt of corrected application March 30, 1990.

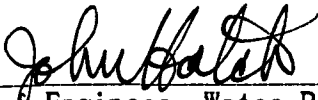
The Water Management Board approved Water Permit Application No. 2121-2 on May 23, 1990 for City of Rapid City, 300 - 6th. Street, Rapid City, SD 57701 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 2121-2 appropriates an additional 0.17 cubic feet of water per second (cfs) from one existing well (Minnelusa Formation) located in the SW1/4 NW1/4 of Section 9 T1N-R7E. Vested Right No. 433-2 authorizes an appropriation of 0.84 cfs from the same well.
2. The water appropriated shall be used for the purpose of supplying water for the city and may not exceed the amount of water needed for beneficial use for municipal purposes.
3. The water is to be used during the following described annual period: January 1 - December 31.
4. The date from which applicant may claim right is March 19, 1990.
5. One-fifth of the construction is to be completed on or before November 23, 1992.
6. All construction is to be completed on or before May 23, 1995.
7. Water is to be put to beneficial use on or before May 23, 1999.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.

WATER MANAGEMENT BOARD

By: 
Chief Engineer, Water Rights Division
Department of Water and Natural Resources

JUL 10 1990

(date)

State South Dakota Farm Rapid City #1 Index 3109

County Pennington Company Morbeck

Sec. 9 T. 1 N R. 7 E Drilled by _____ Date 1935?

SE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$

x			

Authority _____ Type of log sample set 12
study

Type of drill Standard Samples (?) Yes-SDSM

Elevation 3358.8 by city eng. method TD 1460

Remarks Near railroad in Canyon Lake Park

Elevation on pump platform. PB to 880

Pleistocene

Surface and alluvial material

Permian

Minnekahta limestone

Opeche shale and limestone

Pennsylvanian

Minnelusa sandstone, limestone, shale

Mississippian

Pahasapa limestone

Englewood limestone

Cambrian

Deadwood sandstone and shale

Pre-Cambrian

Quartzite and schist

thickness depth to base

65 65 +3299

5146 118 +3148

107 220 +3137

660 880 +510

299 1179 +427

665 1245 +1814

100 1350 (2007)

110 1460 +1599

880
+146
1460
834

433-2
2121-2

Rapid only well-log

Well #1

Shot w/160 Qt nitroglycerin

@ 1460

RC #1

p3

hand lens study

- 610 Red sh + sand.
- 32 Shl fhr, rose sh, ank, ss
- 40 Prob dol
- 50 Shl
- 60 SS, white clay
- 70 dol
- 80 dol
- 90 ss.
- 750 dol magne red sh, flaky high
- 750 dol
- 760 ss
- 780 dol, white
- 88 sh, red to gr.
- 800 dol
- 10 My direct sh + ls
- 15 dol
- 22 dol + ss
- 25 sh - red
- 30 ss red
- 40 ss red
- 45 - prob ss
- 49 dol?
- 55 Red sh, ank, dol
- 60 Sangle fhr, rose ss, dol
- 65 same, more dol
- 72 same

80's are

- 85 - Is, white - phosphorus.

2+7490 - 3' red clay

Englewood	-	1230	} 120
Blackburn	-	1350	
Smoky Gyle	-	1400	
gly harder (dull f.s)	-	1440	
gly right for	-	1442	
gly	-	1460	

RC #1

Mimutahla

Effects

III

III

2 Ss, sand to med sand, ^{uphol} foliated, ± fested, white to pink beige	20	440
3 Ss, same, ± cemented and calc, + SiO ₂	20	460
4 Ss, same, very calcareous & ls, sandy	10	470
5 Ss, same, ± calcareous	10	480
6 Sh, brick red sand <u>and</u>	10	490
7 Ss, same as (21)	5	495
8 Ss, calc & shaly, and and	15	510
9 Ss, coarse, well rounded, white to pink	10	520
10 ls, sandy, calcareous , red.	10	530
11 Sh, calc, red	30	560
12 Sh, purple, calc	20	580
13 Ss, calc, rounded, <u>calc</u> pink sand	20	600

Palo Alto

299

1179

Englewood

66

1245

Blackwood

105

1350

Pre & gtyl + schist

110

1460

1	ls, fully xln, white to yellowish pink	65	65
2	same	13	78
3	same	6	84
1	ls full xln, mostly purple, some cts, white	6	90
5	Same	6	96
6	sh, yd, calc, and andy dnt	15	111
7	Mr ls as above, shale, purple	5	116
8	Shale, purple	6	122
9	Sh, sdy, brick red, some andy	20	130
10	Shale, brick red	70	150
11	No sample <u>ml.</u>	50	220
12	SS, ^{med fine} a yellow to and rounded, cts to yellow, ^{med} well sorted	15	270
13	SS, fine to med, " " " " " "	15	285
14	no sample	20	300
15	Sh, calc, brick red and <u>and</u>	20	320
16	ls, soft, sh, brick red	5	340
17	Sh, calc, brick red and <u>and</u>	25	355
18	ls, soft, sh, brick red	25	370
19	Sh, calc, brick red and <u>and</u>	50	385
20	Sh, calc, brick red and <u>and</u>	50	420

LOG

Artesian Well, #1, Municipal Tourist Park

Feet

- 0-25 Alluvium- no sample, This is Driller's report
- 25-31 Gravel- no sample. Driller's report.
- 31-58 Gravel and red shale (Spearfish?) No sample. Driller's report. Driller reports striking the Minnekahta l.s. at 58 feet, casing set in Minnekahta at 65 feet. First cuttings obtained after casing was set
- 58-65 Minnekahta limestone, no sample. Driller's report.
- 65-72 Sample- Buff to pink to purplish limestone. Some red sandy particles that may have come down from Spearfish formation. Some whitequartz grains (from overlaying gravel?). Some clean white calcite grains with typical cleavage. Many rounded bluish black grains (contamination from gravel higher in hole?). Minnekahta limestone.
- 72-78 Sample- Buff colored Minnekahta l.s., some red sandy shale particles, apparently contamination from Spearfish. Also bits of dark colored schist and white quartz, probably contamination from gravel or alluvium above.
- 78-84 Sample- Buff colored, slightly pinkish Minnekahta l.s. Some contamination of red sand and black to gray schist fragments as in above samples.
- 84-90 Sample- Buff to pink to purplish limestone. Typical Minnekahta. Very little contamination from overlaying beds. These cuttings considerably larger than in previous samples.
- 90-96 Sample- Distinctly purple-pink limestone, some buff colored fragments. Minnekahta.
- 96-102 Sample- Essentially like previous sample. Minnekahta.
- 102-111 Sample- Buff to purplish limestone. Minnekahta, like previous sample
- 111-116 Sample- Brownish red when wet, paler brownish pink when dried. Cuttings consist of reddish clay with a large proportion of limestone fragments, some gypsum. Somewhere in this range is apparently the change from Minnekahta l.s. to Opeche shale.
- 116-122 Sample- Brick red when wet. Pale purplish red when dry. Somewhat sandy, highly Calcareous shale, with many limestone fragments. Whether the limestone belongs here or has been brought down by drill from overlaying Minnekahta is not certain. Opeche shale.



L O G

Feet

- 122-126 Sample- Dark maroon color when wet, pale maroon when dry. Shale somewhat sandy, highly calcareous. Same limestone fragments, possibly carried down from above.
- 126-130 Sample- Much like preceeding sample in color. a little lesscalcareous, (by acid test). Some gypsum.
- (120-130) Sample- Brick red shale, some gypsum.
- 130-134 Sample- Shale with gypsum. Dark maroon wet, brick red dry.
- 130-150 Sample- Red sandstone, dark brick red when wet, paler brick red dry. Considerable gypsum.
- 140-150 Sample- Like above sample but with much gypsum.
- 150-155 Sample- Smooth plastic red clay, not sandy, very slightly calcareous. Deep maroon wet, deep brick red dry.
- 155-160 Like previous sample
- 150-160 Sample- Is this correctly labeled? Red sand with gypsum. Very like 130-150
- 160-165 Sample- Plastic clay, deep maroon color when wet, deep brick red dry. Not sandy butquite calcareous as shown by brisk effervescence with dilute H Cl.
- 165-170 Sample- Same as above
- 170-195 Sample- Same as above
- 195-220 Sample- Same as above
- 220-270 No sample supplies by driller. He says Opeche shale as above samples.
- 270-285 Sample- Sand, in bulk sample reddish pink when wet, palepink dry. Slight momentary effervescence in dilute H Cl, indicating small amount of calcareous cement. Under binocular microscope appears to be practically pure quartz sand, grains rounded to subangular. Some grains stained on outside with pinkish brown coating from oxide, probably, which gives the color to the bulk sample. No "heavy" minerals as shown by immersion in tetrabromaethane. Very probably Minnelusa formation.
- 285-300 Sample- Fine sand. In bulk sample deep pink wet, pale salmon pink dry. Highly calcareous with brisk and continued effervescence with H Cl. Hole sample under binocular shows fine grained quartz sand coated with probably C.CO₃. After treatment with H Cl dilute, insol residue under microscope clear quartz grains and some grains of limonite. No heavy minerals.

L O G

Feet

300-320-

No sample furnished by driller.

320-330

Sample- Buff to pale brown dolomite limestone, somewhat argillaceous and siliceous. Some fragments of brick red shale.

330-340

Sample- Like preceeding sample.

340-345

Sample- Deep brick red wet, paler shade dry. Chiefly clay, some fine sand and considerable limestone in fragments and in fine clay.

345-350

Sample- Like preceeding sample, perhaps a little less clay and a little more lime.

350-355

Sample- Like preceeding sample.

355-370

Sample-, Essentially like preceeding sample.

370-380

Sample- Clay, dark maroon wet, brick red dry. Considerable gypsum and CaCO_3 in clay.

380-390

Sample- Brick red sand, quite argillaceous and calcareous.

390-400

Sample- Shale (clay) deep maroon wet, brick red dry. Lime carbonate crusts on some pieces. Is this indigenous or dyronitic since sample was taken?

400-410

Sample- Like preceeding sample.

410-420

Sample- Like preceeding sample.

420-430

Sample- Sand, Pink when wet, paler creamy pink dry. Calcareous with brisk effervescence in H Cl. Binocular shows it to consist of medium size quartz grains coated with lime carbonate.

430-440

Sample- Like preceeding

440-450

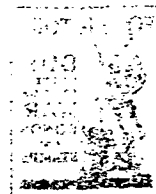
Sample- Sand. Pale pinkish cream wet, pinkish white dry. Binocular shows little carbonate coating on quartz grains but a sample dropped into H Cl effervesces vigorously for a moment. Somewhat coarser grained than preceeding sample.

450-460

Sample- Like preceeding

460-470

Sample- Much like preceeding, but somewhat more calcareous and with more shale fragments.



LOG

Artesian Well, #1, Municipal Tourist Park

Alluvium- no sample, This is Driller's report

Gravel- no sample. Driller's report.

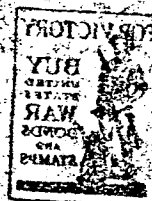
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L O G

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LOG

- heet
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- 450-460 Sample- Like preceeding
- 460-470 Sample- Much like preceeding, but somewhat more calcareous and with more shale fragments.



Pobesaya - City #1.

Mimela

ss, ph, wh, yel ^{and}, poorly sorted, rd to subrd, frag. in rock,
much red & purple shale, evd?

6 980

ls, white, full to crs X thin, & ss as above, about 50-55

5 885

Pobesaya

same, gthly ptes

15 900

same, some yel. rock, evd?

10 910

same, full X thin, still evd orange rd.

9 919

ls, lt yel & lt ph, med full X thin.

13 932

same, but more yel, less ph.

6 938

ls med to crs X thin, wh to lt yel, still evd med.

{ 49 987

no sample
as above

{ 3 990

{ 53 995?

ls, white to pinkish, little evd.

27? 1022

ls, wh to yel or pinkish, crs X thin, still evd rd

8 1030

ls, wh to yel or brnsh, full to crs. X thin

35 1065

ls, med X thin, brnsh

20 1085

ls, yel to pk or brnsh

5 1090

ls, white to lt yel & ph, still evd orange rd

5 1095

ls, yel to dk, in hills evd

5 1100

ls, wh to lt bf or lt ph, "

30 1130

ls, bf to lt yel, full crs X thin, few gray grs, evd?

40 1170

ls as above, also ls, med full + plane? , giving
green tint.

9 1179

ls, a, y, faint to red -

330



City of Rapid City

RAPID CITY, SOUTH DAKOTA 57701

Michael D. Plub, Public Works Director

Public Works Department

300 Sixth Street

605-394-4165

March 8, 1990

Mr. John Hatch
Division Manager
Water Rights Division
SD Department of Water & Natural Resources
Joe Foss Building
Pierre, SD 57501



RE: Application for Water Right Permit
Well Nos. 7 & 8 and
Amendment to Water Permit No. 433-2 (Well No. 1)

Dear Mr. Hatch:

Transmitted herewith are two copies each of the above referenced Applications for new and amended water right permits.

The City of Rapid City is requested additional water permits for two wells located on the east side of the Lakota Sandstone hogback at this time in order to proceed in a timely manner with the development of the waters from the Madison Aquifer. The US Geological Survey will be conducting aquifer pump tests on the two wells completed to date under Water Permit No. 2085-2 in April, 1990 weather permitting. Until the data from the aquifer pump test is available to use in spacing additional wells in the areas identified under Water Permit No. 2085-2, the consensus of the geologists assisting the City is that the two wells proposed under this letter should be constructed at this time.

As soon as the construction of the first two wells is nearing completion, I will submit Form 10, Notice of Completion of Works and Application of Water for Beneficial Use.

If you have any questions regarding the applications or any other matter, please contact me at 394-4165.

Sincerely,

Daniel L. Bjerke, PE/LS
Water/Wastewater Division Manager



EQUAL HOUSING
OPPORTUNITY

EQUAL OPPORTUNITY EMPLOYER



Department of Water & Natural Resources

Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501-3181

March 20, 1990

Daniel Bjerke
Water/Wastewater Division Manager
Public Works Department
300 Sixth Street
Rapid City, SD 57701

RE: Application for Water Right Permit for Well Nos. 7 & 8
Well No. 1 - Increase in Diversion Rate (permit No. 433-2)

Dear Mr. Bjerke:

This letter is a follow-up to the recent Rapid City water permit applications and our subsequent phone conversation.

- 1) The fee for increasing the diversion rate of well No. 1 by 0.27 cfs is \$225 instead of the \$50 fee you submitted. I have attached the \$50 purchase order you submitted, please remit the correct fee of \$225.
- 2) What is the yearly volume (ac-ft) to be utilized by the water permit application claiming 2.23 cfs from Rapid City's future use permit No. 2086-2? If this were continuous use it would approximately 1614 acre feet yearly and this would be deducted from the city's future use permit. Please inform me of the yearly volume of water to be claimed under this permit.
- 3) Pursuant to our conversation, I am processing the permit using well No. 8 as a new permit and not including it in Rapid City's future use permit No. 2086-2. The well location is not within the boundaries of the future use permit and thus can not utilize permit No. 2086-2. Let me know if you disagree with procedure I am following. Also, please contact me on the yearly volume of water to be claimed under this permit.

I am going to proceed with processing these permits but would appreciate attention the above mentioned items. If you have any question, please feel free to contact me.

Sincerely,

Eric Gronlund
Natural Resources Engineer
Division of Water Rights
(605) 773-3352

attachment

RECEIPT

Division of Water Rights

South Dakota Department of Water and Natural Resources

412160

Pierre, March 30, 1990

RECEIVED OF City of Rapid City, 300 6th Street, Rapid City, SD 57701

the following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. <u>2121-2</u> to Appropriate Water, to construct works and to put water to beneficial use _____	225	00
Fee for Application for Permit No. _____ to Appropriate Water for Future Use _____		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. _____		
Fee for Filing Transfer Form _____		
Fee for Filing Extension Request _____		
Fee for Certified Copy of _____		
Fee for Print Copy of Map _____		
Fee for Certifying _____		
Fee for _____		
(Any Other Work Provided by Law)	Total	225 00

By John Hatch
Chief Engineer



City of Rapid City

RAPID CITY, SOUTH DAKOTA 57701

Michael D. Strub, Public Works Director

Public Works Department

300 Sixth Street

605-394-4165

March 26, 1990

Mr. Eric Gronlund
Natural Resources Engineer
SD Dept of Water & Natural Resources
Division of Water Rights
523 East Capitol
Pierre, SD 57501-3181

Re: Application for Water Right Permit for Wells Nos. 7 & 8
Well No. 1, Increase in Diversion Rate

Dear Mr. Gronlund:

Enclosed are Rapid City's Purchase Order Nos. 215625 and 218289 totaling \$225.00 to cover the fee for increasing the diversion rate of Well No. 1., please sign below the "Verification" statement and return as soon as possible so that we may issue payment.

The yearly volume of water to be claimed under the water use permit No. 2086-2 is 800 acre feet. The yearly volume of water to be claimed under the water use permit for Well No. 8 is also 800 acre feet.

Sincerely,

DANIEL L. BJERKE, P.E./L.S.
Water/Wastewater Division Manager

Enclosures

cc File: Daniel\Correspo\Permits



EQUAL HOUSING
OPPORTUNITY

EQUAL OPPORTUNITY EMPLOYER

REPORT ON APPLICATION NO. 2121-2
FOR THE CITY OF RAPID CITY
April 19, 1990

This application proposes to appropriate 0.17 cfs from an existing well (No. 1) approximately 880 feet deep located in the SW 1/4 NW 1/4 of section 9, T1N R7E BHM in Pennington County. Vested Right No. 433-2 authorizes an appropriation of 0.84 cfs from this well already. The water is to be used for municipal purposes by the City of Rapid City.

AQUIFER - MINNELUSA (MNLS)

The Minnelusa Formation consists primarily of sandstone, limestone and dolomite. The Minnelusa underlies approximately 1.47 million acres and contains an estimated 51.43 million acre feet of recoverable water in storage in Pennington County (Allen, 1984). The Minnelusa reportedly ranges in thickness from 560 to 640 feet (Cattermole, 1969) in this area. A nearby drillers log for PE-89A indicates 552 feet of Minnelusa was penetrated and this was not the entire section (Water Rights, 1989). As near as can be determined, the well is about 880 feet deep. The well was drilled to a depth of 1460 feet and plugged back to the top of the Madison Formation. The well has been in continuous use since 1935.

The Minnelusa is under artesian conditions and will flow at this site. The Division of Water Rights monitors an observation well PE-89B which is completed into the upper Minnelusa and is about 1/4 mile west of this site. Water level records are also available for a Minnelusa well PE-64B (located about 1 1/2 miles northeast) which indicate seasonal changes in response to climatic conditions. The historical record indicates water levels are not adversely affected by existing development (Water Rights, 1990).

REVIEW OF EXISTING WATER PERMITS/RIGHTS

There are numerous permits/rights for Minnelusa wells in the Rapid City area. The nearest existing water right is city Water Right No. 435-2 for well No. 3 which is located about 1/4 mile north of this location. Another water right, No. 434-2 is located about 1/8 mile south of this site (well No. 2). This well has been abandoned by the City since the early 1960's (personnel communication with R. Kruger). Additional drawdowns will occur as a result of the increase in pumping rate; however, there is no indication that this will adversely affect water availability from the aquifer.

CONCLUSIONS

1. Water is available from the Minnelusa Formation.
2. The well is under artesian conditions and there will be an increase in drawdowns created by the higher pumping rate. This is not expected to be significant.
3. This well was originally drilled to a depth of 1460 feet and then was plugged back to the top of the Madison. The well as completed is producing only out of the Minnelusa.
4. Vested Right No. 434-2 can be cancelled because of abandonment. An inspection of the site should be made to determine if the well has been properly plugged or just caved in. The City was unable to confirm that this well had been properly plugged.
5. This is an existing well and has been in use since 1935.


James A Goodman
Natural Resources Engineer

BIBLIOGRAPHY

- Allen, J.C., 1984, ANALYSIS OF GROUND WATER AND STREAMFLOW DATA WESTERN DAKOTAS REGION OF SD, TASK 3 AND 4, GROUND WATER RESOURCES INVENTORY, for US Army Corps of Engineers, SD DWR, SDGS, Vermillion, SD, 57069.
- Cattermole, J.M., 1969, GEOLOGIC MAP OF RAPID CITY WEST QUADRANGLE, Map GQ-828, USGS, Washington, DC.
- Water Rights, 1989, RECORDS FOR PE-89A, SD DWR, Div. of Water Rights, Joe Foss Bldg., Pierre, SD, 57501.
- Water Rights, 1990, RECORDS FOR OBSERVATION WELLS COMPLETED INTO THE MINNELUSA FORMATION IN PENNINGTON COUNTY, SD DWR, Div. of Water Rights, Joe Foss Bldg., Pierre, SD, 57501.

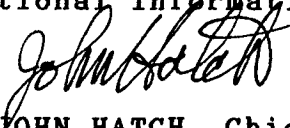
RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 2121-2, City of Rapid City

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Division, Department of Water and Natural Resources concerning Water Permit Application No. 2121-2, City of Rapid City, 300 6th St., Rapid City SD.

The Chief Engineer is recommending APPROVAL of Application No. 2121-2 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) in the public interest with the following qualification:

The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.

See the attached report for additional information.


JOHN HATCH, Chief Engineer
April 19, 1990

SOUTH Dakota Department of
Water & Natural Resources

Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501-3181
April 19, 1990

NOTE: TO BE SURE OF PUBLICATION ON
THE CORRECT DATES, CONTACT
THE NEWSPAPER RIGHT AWAY.

Keith T, Carlyle, Mayor
City of Rapid City
300 6th St
Rapid City SD.

Dear Mayor Carlyle:

Water Permit Application Nos. 2121-2, 2124-2 and 2125-2 for municipal use have been examined and found to comply with the South Dakota Water Laws and applicable rules. The Notice of hearings have been sent to the Publisher of the Rapid City Journal printed at Rapid City SD. For your information, a copy of the notice is enclosed. The recommendations of the Chief Engineer and reports on the application will be sent later. Please review the notices prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspaper to authorize publication of the Notice of Hearings and to arrange for payment. Early contact with the paper can eliminate delays. The publisher has been instructed to publish the notices once each week for two consecutive weeks with the last publication to occur twenty days before the board meeting. The newspaper has been instructed to send us the Proof of Publications. We must receive Proof of Publication before the applications can be considered by the Water Management Board.

Sincerely,



Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures



Department of Water & Natural Resources

Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501-3181

April 19, 1990

Rapid City Journal
PO Box 450
Rapid City SD 57709

ATTENTION: Legal Department

Enclosed is a Notice of Hearing on Application No. 2121-2 to be published twice. Please publish the first notice on or before April 26, 1990 with the second publication 7 days later.

The APPLICANT MUST VERIFY TO YOU THAT THE NOTICE IS TO BE PUBLISHED, before you make the first publication. Please BILL the APPLICANT for the cost of publication. The APPLICANT is the City of Rapid City, 300 6th St, Rapid City SD.

A copy of BOTH publications must be SENT to the WATER RIGHTS DIVISION. IMMEDIATELY return the FIRST publication with the FIRST Transmittal form on the bottom of this page. The first copy is needed to check the publication for errors so any corrections can be made in the second publication. Publication errors can invalidate the public notice and cause the applicant costly delays.

Please be sure the SECOND publication is returned IMMEDIATELY with the enclosed Proof of Publication form. DO NOT WAIT until the end of the month or the billing cycle. The permit application cannot be considered by the Water Management Board until proof of publication has been received.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

-----CUT HERE-----

FIRST TRANSMITTAL NOTICE

TO: Eric Gronlund
Water Rights Division
Joe Foss Building
Pierre SD 57501-3181

No. _____

Date _____

We are in receipt of your letter of _____ enclosing Notice of Hearing to Appropriate Water by Application No. _____ which was first published in our issue of _____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

Name

Newspaper

Instruction to Newspaper - Publish first Notice on or before April 26, 1990 with 2nd publication 7 days later. The applicant is responsible for payment.

NOTICE OF HEARING on Application No. 2121-2 to Appropriate Water

Notice is given that the City of Rapid City, 300 6th St, Rapid City SD has filed an application for a water permit to appropriate an additional 0.17 cubic feet of water per second (cfs) from one existing well (Minnelusa Formation) 1460 feet deep located in the SW 1/4 NW 1/4 of Section 9-T1N-R7E. Vested Right No. 433-2 authorizes an appropriation of 0.84 cfs from the same well. Water is to be used for municipal purposes by the City of Rapid City.

Pursuant to SDCL 46-2A-2, the Chief Engineer of the Water Rights Division recommends APPROVAL of Application No. 2121-2 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water and 4) it is in the public interest. This application will be considered by the Water Management Board in the Pelican Room, Ramkota Inn, Hwy 212, Watertown SD on May 23, 1990 at 10:00 am. The Chief Engineer's recommendation is not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer or 4) deny this application based on the facts presented at the public hearing.

Any interested person that intends to participate in the hearing before the Board by presenting evidence or cross-examining witnesses according to SDCL 1-26, must file a written petition with BOTH the applicant and Chief Engineer by May 11, 1990. The Chief Engineer's address is "Water Rights Division, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)". The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application and the signature and mailing address of the petitioner or legal counsel if legal counsel is obtained. The applicant need not file a petition. Contact the Water Rights Division to request information on this application or to assure access to the hearing by the handicapped.

This hearing is an adversary proceeding. Any person filing a petition and/or the applicant have the right to be represented by a lawyer. These and other due process rights will be forfeited if not exercised. Decisions of the Board may be appealed to the Circuit Court and State Supreme Court as provided by law. The time of the hearing will also be automatically delayed for at least twenty days upon written request to the Chief Engineer from the applicant or a petitioner. The request for a delay must be received by May 11, 1990.

This application is made pursuant to SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-15; 46-2-3.1, 46-2-9, 46-2-11, 46-2-13, 46-2-17; 46-2A-1 thru 46-2A-10, 46-2A-12, 46-2A-14, 46-2A-15; 46-5-1 thru 46-5-11, 46-5-13 thru 46-5-15, 46-5-24, 46-5-25, 46-5-30.2, 46-5-30.4, 46-5-31; 46-6-3, 46-6-3.1, 46-6-6.1, 46-6-10, 46-6-13, 46-6-14; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15.

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
) ss.
 County _____)

I, Mary K. Garness

certify that the attached printed Notice was taken
 from the Rapid City Journal

A newspaper which during the whole time of publication of
 said notice herein after stated, has been and is printed and
 published in the _____

City of Rapid City

County of Pennington and State of South Dakota;
 that the said notice was published in said newspaper on the
 following two dates:

April 26, 1990

May 3, 1990

Mary K. Garness
 (Signature)

Bookkeeper
 (Title)

May 3, 1990
 (Date Signed)

Cost of Printing: Ran 7 15/16 inches legal advertising

in the Rapid City Journal on April 26 and May 3

@ \$4.20 per inch = \$66.68

Ran public notice of hearing L185

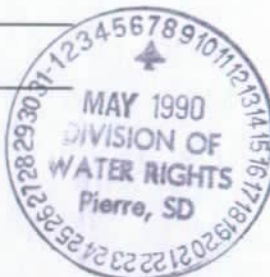
April 26, May 3 L185
**NOTICE OF HEARING
 ON APPLICATION NO. 2121-2
 TO APPROPRIATE WATER**
 Notice is given that the City of
 Rapid City, 303 6th St., Rapid City,
 S.D. has filed an application for a
 water permit to appropriate an
 additional 0.17 cubic feet of water
 per second (cfs) from one existing
 well (Minnelusa Formation) lo-
 cated in the SW¼ NW¼ of Section
 9-T1N-R7E, Vested Right No. 433-2
 authorizes an appropriation of 0.84
 cfs from the same well. Water is to
 be used for municipal purposes by
 the City of Rapid City.
 Pursuant to SDCL 46-2A-2, the
 Chief Engineer of the Water
 Rights Division recommends AP-
 PROVAL of Application No. 2121-2
 because 1) unappropriated water
 is available, 2) existing rights will
 not be unlawfully impaired, 3) it is
 a beneficial use of water and 4) it
 is in the public interest. This ap-
 plication will be considered by the
 Water Management Board in the
 Pelican Room, Ramkota Inn, Hwy.
 212, Water, S.D., on May 23, 1990 at
 10:00 a.m. The Chief Engineer's
 recommendation is not final or
 binding upon the Board. The Board

is authorized to 1) approve, 2) ap-
 prove with qualifications, 3) deter
 or 4) deny this application based
 on the facts presented at the public
 hearing.

Any interested person that in-
 tends to participate in the hearing
 before the Board by presenting
 evidence or cross-examining wit-
 nesses according to SDCL 1-26,
 must file a written petition with
 BOTH the applicant and Chief
 Engineer by May 11, 1990. The
 Chief Engineer's address is "Wa-
 ter Rights Division, Foss Building,
 523 E. Capitol, Pierre, S.D. 57501
 (605-773-3332)." The petition may
 be informal, but must include a
 statement describing the peti-
 tioner's interest in the application,
 the petitioner's reasons for oppos-
 ing or supporting the application
 and the signature and mailing ad-
 dress of the petitioner or legal
 counsel if legal counsel is ob-
 tained. The applicant need not file
 a petition. Contact the Water
 Rights Division to request infor-
 mation on this application or to
 assure access to the hearing by the
 handicapped.

This hearing is an adversary
 proceeding. Any person filing a
 petition and/or the applicant have
 the right to be represented by a
 lawyer. These and other due pro-
 cess rights will be forfeited if not
 exercised. Decision of the Board
 may be appealed to the Circuit
 Court and State Supreme Court as
 provided by law. The time of the
 hearing will also be automatically
 delayed for at least twenty days
 upon written request to the Chief
 Engineer from the applicant or a
 petitioner. The request for a delay
 must be received by May 11, 1990.

This application is made pursu-
 ant to SDCL 46-1-1 thru 46-1-9, 46-1-
 12 thru 46-1-15; 46-2-3.1, 46-2-9, 46-2-
 11, 46-2-13, 46-2-17; 46-2A-1 thru 46-
 2A-10, 46-2A-12, 46-2A-14, 46-2A-15;
 46-5-1 thru 46-5-11, 46-5-13 thru 46-5-
 15, 46-5-24, 46-5-25, 46-5-30.2, 46-5-
 30.4, 46-5-31; 46-6-3, 46-6-3.1, 46-6-
 5.1, 46-6-10, 46-6-13, 46-6-14; and
 Board Rules ARSD 74:02:01:01
 thru 74:02:01:15.





Department of Water & Natural Resources

Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501-3181

April 30, 1990

Keith T. Carlyle, Mayor
City of Rapid City
300 6th St
Rapid City SD 57701

Dear Mayor Carlyle:

Enclosed are the reports and recommendations of the Chief Engineer for Water Permit Application Nos. 2121-2, 2124-2 and 2125-2 for Rapid City.

Sincerely,

A handwritten signature in cursive script that reads "Karen Schlaak".

KAREN SCHLAACK
Senior Secretary
Water Right Division
605 773-3352

enclosures



Department of Water & Natural Resources

Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501-3181

JUL 10 1990

Keith T Carlyle, Mayor
City of Rapid City
300 - 6th St
Rapid City SD 57701

Dear Mayor Carlyle:

Enclosed are Water Permit Nos. 2121-2, 2124-1 and 2125-1 as approved by the Water Management Board authorizing the construction of the water diversion systems and put the water to beneficial use, not exceeding the limits as specified in each Water Permit.

Also enclosed are three Notice of Completion of Works and Application of Water to Beneficial Use, which you are to complete and submit to the Chief Engineer when you have completed the system and/or have put the water to beneficial use. An inspection can then be scheduled so that the Water Licenses may be issued, thus completing your acquisition of a Water Right.

Very truly yours,

A handwritten signature in black ink, appearing to read "John Hatch". The signature is stylized with a large, looped "J" and a cursive "Hatch".

JOHN HATCH, Chief Engineer
Water Rights Division
605 773-3352

enclosures

PLEASE NOTE: Certain changes can be made in your permit within the five year construction period, usually without affecting the priority date provided an application to amend your permit is made within the five year period - i.e. changes in location or number of diversion points (wells) or location of land to be irrigated. Well locations for wells into the same aquifer can be moved up to 660 feet without application.

Applications to amend a permit after the five year construction period will be assigned a new priority date. Applications to change water sources, to add lands or increase original diversion rates, if approved will usually receive the date of the new application as a priority date regardless of the five year construction period.



City of Rapid City

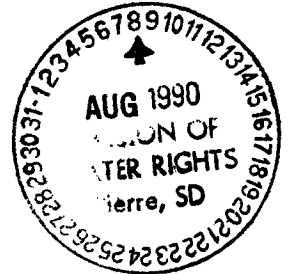
RAPID CITY, SOUTH DAKOTA 57701

Michael D. Prub, Public Works Director

Public Works Department

300 Sixth Street

605-394-4165



August 7, 1990

Mr. John Hatch, Chief Engineer
Water Rights Division
SD Department of Water & Natural Resources
Joe Foss Building
Pierre, SD 57501

Re: NOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USE
Water Permit No. 2121-2

Dear John:

Transmitted herewith is the above referenced Notice for
Water Permit No. 2121-2.

If you have any questions, please contact me.

Sincerely,

Daniel L. Bjerke, PE/LS
Water/Water Reclamation Division Manager



EQUAL HOUSING
OPPORTUNITY

EQUAL OPPORTUNITY EMPLOYER

NOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USEDate August 7, 1990TO: Water Rights Division, DWNR
Joe Foss Building
Pierre SD 57501-3181FROM: City of Rapid City, 300 Sixth Street, Rapid City, SD 57701
name address city

I have completed the construction of the water diversion system and I have put the water to beneficial use to the maximum extent it is going to be used. I have not exceeded the amounts specified in Water Permit No. 2121-2.

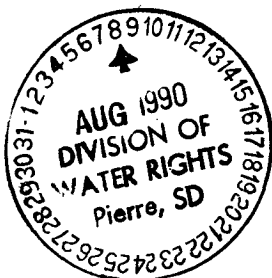
Water Permit No. 2121-2 states that the diversion system is to be constructed by City of Rapid City, SD, and that the water it put to beneficial use by City of Rapid City, SD.

The diversion system was completed on March 19, 1990.
Applying the water to beneficial use was completed on March 19, 1990

You may schedule an inspection so that the Water License may be issued.



signature
DANIEL L. BJERKE, P.E./L.S.
Water/Water Reclamation Division Manager





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

June 19, 1997

2121-2

Daniel L Bjerke
City of Rapid City
300 6th St
Rapid City SD 57701

Dear Mr. Bjerke:

A review of our files indicates that Water Permit No. 2121-2 was investigated by Mark Rath but the final water right document, the Water License was not issued. Water Permit No. 2121-2 appropriates an additional 0.17 cubic feet of water per second (cfs) from a well located in the SW 1/4 NW 1/4 Section 9-T1N-R7E. Vested Right No. 433-2 authorizes an appropriation of 0.84 cfs from the same well for a total diversion of 1.01 cfs.

Statutes require that we charge a \$50.00 fee for the investigation and issuance of the Water License. Upon receipt of the \$50.00 fee, we will process the Water License.

Please remit fee to:

**Department of Environment & Natural Resources
Water Rights Program
523 E. Capitol
Pierre, SD 57501-3181**

Sincerely,

Karen Schlaak
Water Rights Program
(605) 773-3352

NOTE: On check or money order, please specify the permit number to insure proper handling of the fee.

RECEIPT

415442

Division of Water Rights

South Dakota Department of Environment and Natural Resources

Pierre, _____ August 20, 19 97

RECEIVED OF City of Rapid City, 300 Sixth Street, Rapid City, SD 57701

the following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. _____ to Appropriate Water, to construct and to put water to beneficial use _____		
Fee for Application for Permit No. _____ to Appropriate Water, for Future Use _____		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>2121-2</u>	50	00
Fee for Filing Transfer Form _____		
Fee for Filing Extension Request _____		
Fee for _____		

(Any Other Work Provided by Law)	Total	50 00

By John Hatch 
Chief Engineer

Permit No. 2121-2 and Vested Water Right Claim No. 433-2
Upper Cheyenne River - Water District

Report Of Examination Of Works And/Or Application of Water To Beneficial Use

TO: Chief Engineer, Division of Water Rights, DENR, Foss Bldg., Pierre, SD 57501

I have this day made a thorough examination of the water use system constructed by City of Rapid City of 300 6th St, Rapid City, SD holder of Permit No. 2121-2, bearing the priority of March 19, 1990 authorizing the diversion of 0.17 cu. ft. per second and of Vested Water Right Claim No. 433-2, bearing the priority of January 1, 1935 authorizing the diversion of 0.84 cu. ft. per second of the waters of ground water for municipal use purposes, in Pennington County.

I have to report on the conditions of the same as follows:

A. Works used to divert the water:

An 8 inch American Turbine pump with a 455 gpm capacity.

B. Works used to transport water to place of use:

Municipal water distirbution system.

The system is in the following condition good. The point of diversion is located SW1/4 NW1/4 of Section 9 T1N-R7E. The works are capable of diverting and conveying to the place of use 1.01 cu. ft. per second of water which is to be used for municipal use. The license should be issued for 1.01 cfs.

Applicable permit qualifications have been complied with: Yes ☒ No

Exceptions to compliance are: none Date: 7/14/1992



Mark D. Rath
Natural Resources Engineer
DENR, Water Rights Division

REPORT ON INSPECTION OF PERMIT NO. 2121-2

DATE: 7/14/1992

Other permit(s) associated with the project: Vested Water Right No. 433-2

DIVERSION POINT LEGAL LOCATION: SW1/4 NW1/4 of Section 9 T1N-R7E

WELL INFORMATION:

- 1) Well Drilling Firm: Norbeck Company
- 2) No. of Wells 1
- 3) Depth(s) 880 feet
- 4) Well log is available Y
- 5) Comment: Drilled in July 1935

Casing:

- 1) Diameter 10 inches
- 2) Length 880 feet
- 3) Type steel

Screen:

- 1) Type steel casing was perforated
- 2) Length ? feet
- 3) Static water level ? feet

Pump:

- 1) Make American Turbine
- 2) Model 8L30
- 3) Size 8 inch
- 4) Capacity 455 GPM

Motor:

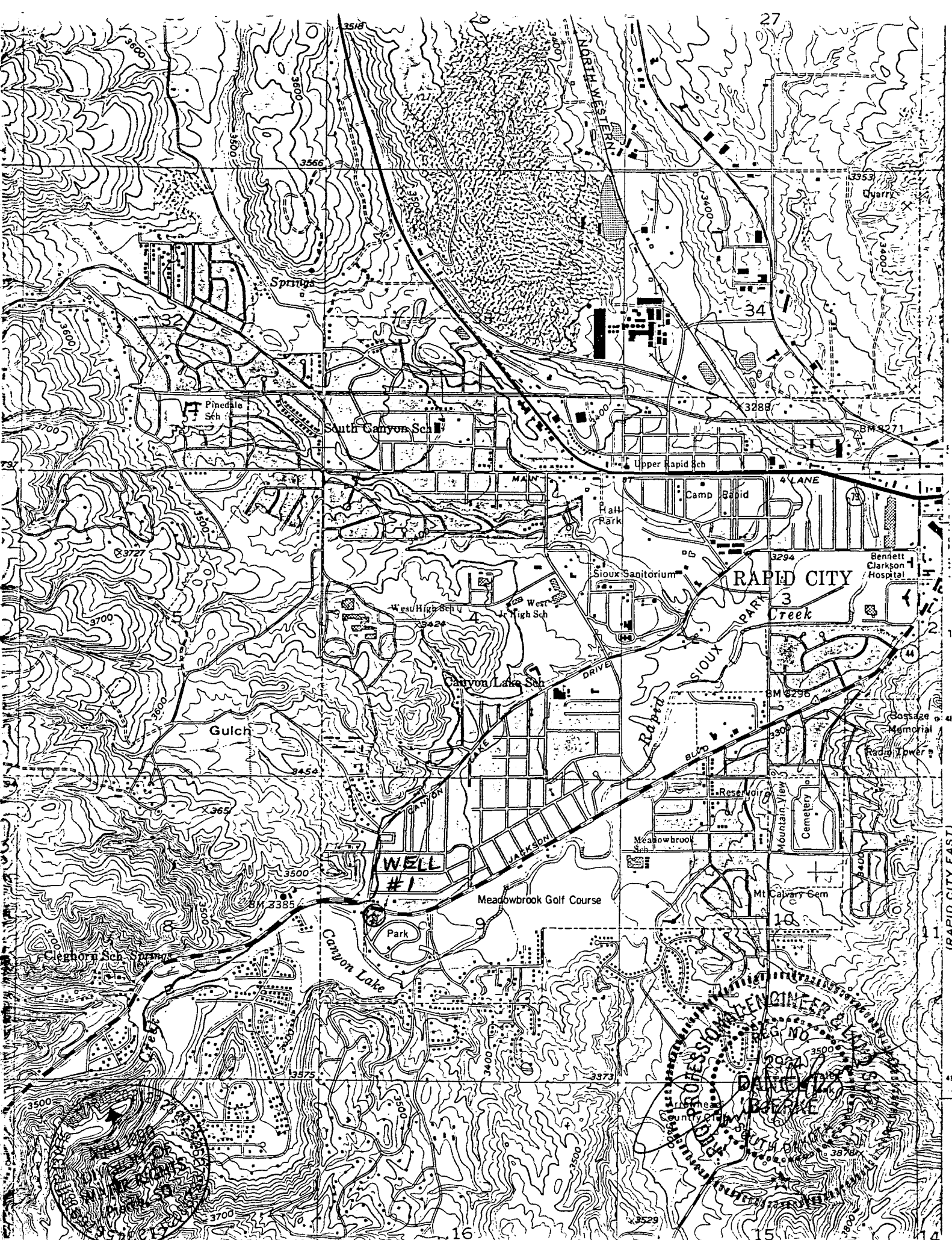
- 1) Make Franklin Motor
- 2) Model No. 2366186010
- 3) Horsepower rating 50 hp

DISTRIBUTION LINES OR CANALS:

- 1) Type Municipal water distribution system.

PERMIT QUALIFICATIONS AND REGULATIONS:

- 1) Soil and water permit lands agree with lands being irrigated and lands listed on permit NA
- 2) Special qualifications to permit being abided by Y
- 3) All structures, wells and lands on map Y
- 4) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period NA



27

2121-2

(RAPID CITY EAST)

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 2121-2

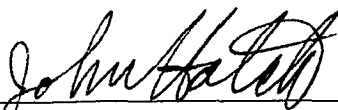
(1) The City of Rapid City, 300 6th St., Rapid City SD 57701 made Application No. 2121-2, March 19, 1990 for a water permit to divert 0.17 cubic feet of water per second (cfs) from groundwater (one existing well), Pennington County, South Dakota for municipal use purposes. Permit No. 2121-2, with a priority date of March 19, 1990 was approved May 23, 1990 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before May 23, 1995 and for the application to beneficial use of said water on or before May 23, 1999.

Vested Water Right No. 433-2 authorizes the diversion of 0.84 cfs, from the same well, for a total appropriation of 1.01 cfs.

(2) It is certified that the applicant has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to divert 0.17 cubic feet of water per second for beneficial use. The location of the diversion point is 2,625 feet S 21°31'E of the NW corner of Section 9-T1N-R7E (SW 1/4 NW 1/4).

(3) The applicant has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use.

(4) Pursuant to South Dakota Water Law 46-5-30.1 the City of Rapid City, 300 6th St., Rapid City SD 57701 the holder and/or owner of Water Permit No. 2121-2 is issued a license to appropriate water, the right to use 0.17 cubic feet of water per second from groundwater (one well) with a priority date of March 19, 1990 from the location specified in (2) of this license for the purpose of municipal use. This license is subject to any limitations or qualifications listed in Water Permit No. 2121-2 and subject to South Dakota State Law.



JOHN HATCH, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

NOV 12 1997

date





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

NOV 12 1997

2121-2

Daniel L. Bjerke
City of Rapid City
300 6th St.
Rapid City, SD 57701

Dear Mr. Bjerke:

Enclosed is Water License No. 2121-2. This is the final water right document completing your process of obtaining a Water Right. Enclosed is Receipt No. 415442 in the amount of \$50.00 which you paid for the investigation and issuance of the Water License.

For your information SDCL 46-6-27 requires that if the owner of an existing well, such as the well authorized by Water Right No. 2121-2, constructs a replacement well and does not plan to use the old well, the old well is considered abandoned and must be plugged. Also, any well that is being used or is not considered abandoned must be valved and controlled, if flowing, or sealed and capped so that no leaking occurs either underground or at the surface.

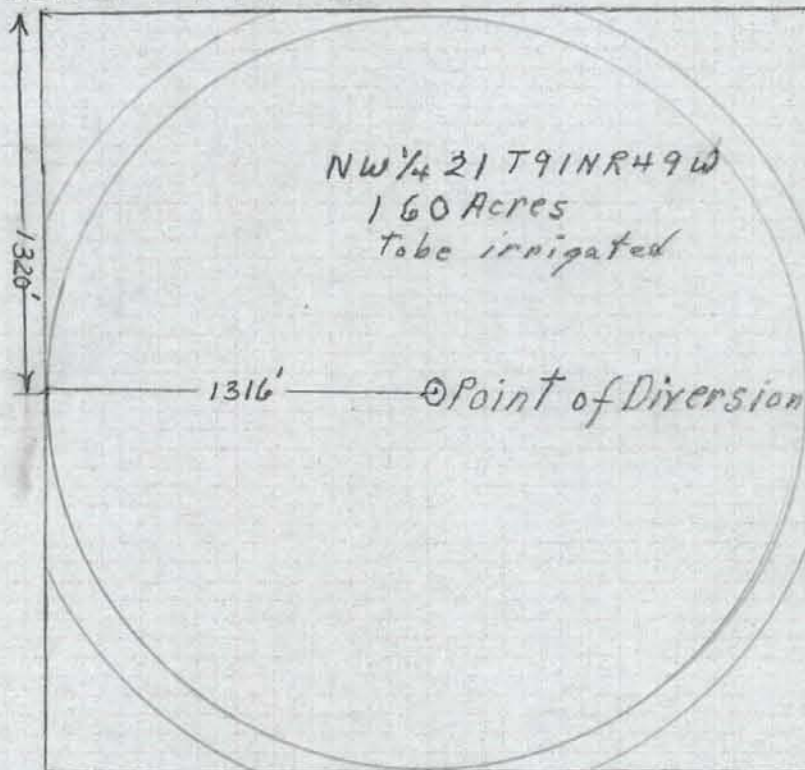
As long as you use the water beneficially, as stated in the Water License, the State Water Laws provide that you have a continuing right to use the water. If you have any questions, please contact our office.

Very truly yours,

JOHN HATCH, Chief Engineer
Water Rights Program
(605) 773-3352

ks
enclosures

NW Corner
SEC 21 T91N R49W



Bernard Hall
Elk Point, So. Dak
Hall Pivot Irrigation System

160 Acres
NW 1/4 21 T91N R49

Scale: 8 in / 1 mi

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Designed by	Charles K. Dahlgren	DATE	9-20-74	Approved by	CK Dahlgren
Drawn by	CK Dahlgren	DATE	9-20-74	TITLE	District Conservationist
Project		Sheet		Drawing No.	
Checked		No.			

MARN 2151823 APPL NO 2121-3

APRIL 1963