

Considered: _____

WATER PERMIT NO. 1481A-1

MAP No. 892-3006

Name of Applicant City of Belle Fourche

Post Office Address 606 6th Avenue, Belle Fourche SD 57717

Amount of Water Claimed no add'l Total Acres —

Source of Water Supply groundwater (Madison

Water to be used for Mun, Geo County Butte

About — miles — of Belle Fourche

PROOF OF PUBLICATION: Received _____ Not Received _____

APPLICATION: Approved _____ Subject to _____

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

PRIORITY _____ Date Received 3/28/90 Fee 50⁰⁰ Remarks change in diversion point

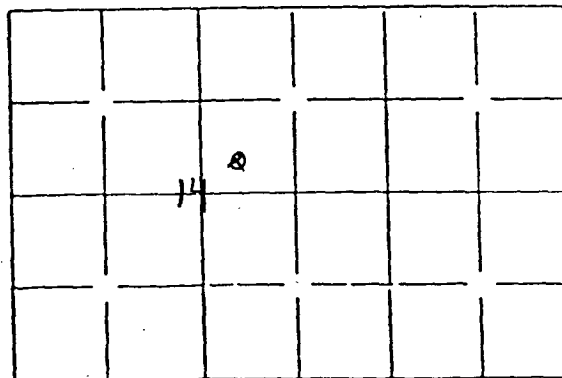
Corrected Application Received _____ Period of Annual Use _____

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

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

Diversion Point 660' E + 3118' North of SE corner of Section 14 T8N-R2E

Land to be Irrigated _____



Well Log: Driller _____ Licensed YES _____ NO _____

Depth of Well ≈ 2948' REMARKS _____

Type of Map Plat PREPARED BY Larry Little Reviewed and the Number assigned on April 3, 1990 By Eric Hankland

**SOUTH DAKOTA
WATER PERMIT No. 1481A-1**

Date of first receipt of application March 28, 1990.

The Water Management Board approved Water Permit Application No. 1481A-1 on May 23, 1990 for the City of Belle Fourche, 606 6th Avenue, Belle Fourche, SD 57717 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. 1481A-1 amends Water Permit No. 1481-1 to change the location of the point of diversion of one Madison formation well. The well was to be located in the SW1/4 SW1/4 Section 11 T8N-R2E. This Permit authorizes a change in the point of diversion to the SW1/4 NW1/4 Section 14 T8N-R2E. No increase in the diversion rate is authorized by this Permit.
2. The water appropriated shall be used for the purpose of supplying water for the City of Belle Fourche and may not exceed the amount of water needed for beneficial use for Municipal and Geothermal Heating/Cooling 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 December 20, 1989 (established by Water Permit No. 1481-1)
5. One-fifth of the construction is to be completed on or before September 7, 1992.
6. All construction is to be completed on or before March 7, 1995.
7. Water is to be put to beneficial use on or before March 7, 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 authorized by Permit No. 1481A-1 shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted with cement (bottom to top) from the producing formation to the surface pursuant to Section 74:02:04:30.
2. 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.
3. The well approved under this permit shall be valved and the flow reduced to the amount needed or to a minimum when not being used. The well shall also be equipped with a pressure gauge and a record kept of any pressure fluctuations. Such records shall be available to the Chief Engineer upon request. If this well is abandoned or the permit cancelled, the well must be plugged in accordance with specifications of the Water Management Board.

WATER MANAGEMENT BOARD

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

JUL 10 1990
(date)

Mail to: Water Rights Div.
523 E. Capitol
Pierre, SD 57501
(605) 773-3352

No. 1481A-1 Hydrologic Unit 10120203
Map No. _____ Basin Belle Fourche
Newspaper Daily Belle Fourche Post Box 400 57717-0400

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. _____ with old priority date retained

Change diversion point(s) ☐ Add diversion point(s) ☐ Other ☐

☒ Application to: Change diversion point(s) ☒ Add diversion point(s) ☐ on Permit No. 1481-1

☐ Construction to use water reserved by Future Use Permit No. _____

1. Name of Applicant CITY OF BELLE FOURCHE Phone No. 892-3006
Post Office Address 606 6TH AVENUE, BELLE FOURCHE State SD 57717
(Street, RR or Box) (City) Zip Code

2. Amount of water claimed (c.f.s.) -2.23 no add'l

3. Source of water supply WELL TO MADISON (PAHASAPA) LIMESTONE

4. Location of point of diversion _____
660' EAST AND 3118' NORTH OF THE SOUTHWEST CORNER OF SECTION 14, T8N, R2E, B.H.M.
County BUTTE

5. Counties where water will be used BUTTE

6. Annual period during which water is to be used ~~YEAR AROUND~~ 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)
DRILL A WELL INTO THE MADISON (PAHASAPA) LIMESTONE, ESTIMATED 2948' DEEP. (SEE ATTACHED MAP AND GEOLOGIC CROSS SECTION SHEETS FOR TYPE OF FORMATIONS TO BE ENCOUNTERED). 8" WATER LINE TO AN EXISTING 1.5 MILLION GALLON STORAGE RESERVOIR. INSTALL NECESSARY CHLORINATION EQUIPMENT. ANTICIPATE TO USE A PORTION OF THE WATER TO HEAT AND COOL THE PROPOSED CITY RECREATION CENTER WITH WATER TO BE REINJECTED BACK INTO THE WATER DISTRIBUTION SYSTEM FOR MUNICIPAL WATER SUPPLY. ESTIMATED COST - \$370,000.00

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 BUTTE)^{ss}

I, ROBERT L. HELMER, MAYOR, CITY OF BELLE FOURCHE 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 Robert L. Helmer

Subscribed and sworn to before me this 23RD day of MARCH 1990

My Commission Expires
January 31, 1998

William S. Ficken
Notary Public

Supplemental Information

(type or print in ink)

1. Well Information - Proposed construction

- a) Drill Hole Diameter 13 1/2" & 9 7/8" & 6 3/4" Depth 1000' - 1457' - 491'
- b) Casing Type STEEL Diameter 10 3/4" & 7 5/8" Thickness 10 2/3" = ± .365"
7 5/8" = ± .277"
- c) Screen Type NA Diameter _____ Thickness _____
- d) Gravel Pack Thickness NA Length of Gravel Pack _____
- e) Depth to Top of Water Bearing Material 2457 FEET (ESTIMATED)
- f) Depth to Water (ground surface to water level) ANTICIPATE FLOW AT WELL HEAD
- g) Distance to nearest existing domestic well:

On applicants property 2.5 MI. NORTH & 0.8 MI. WEST (CITY'S MADISON WELL #1) On property owned by others _____

2. Dugout Information Estimates

- a) Surface Dimensions _____ Depth _____
- b) Depth to water (ground surface to water level) _____

3. Water Storage Dams

If the proposed water use system contains one or more storage dams, please furnish the information requested below. The locations of each dam should be shown on the map submitted with the application.

- a) If a private engineering firm or government agency was involved in the design of this dam please give their name and address

b) Freeboard _____

c) Crest Width _____

Crest Length _____

d) Height _____

e) Primary Outlet Capacity _____
 If Pipe, diameter _____

f) Secondary Spillway Capacity _____
 Spillway width _____

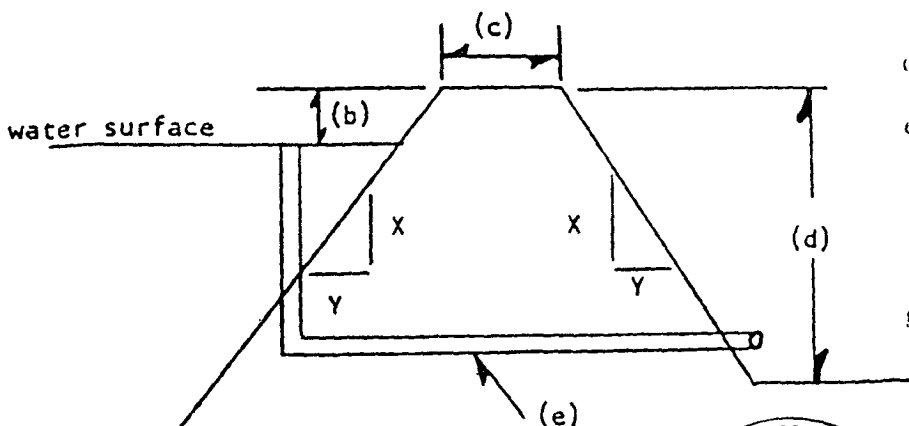
g) X & Y Slope
 Upstream _____

Downstream _____

Surface Area of Impoundment _____

Storage _____ acre feet

Drainage area above dam _____



Signature of Applicant



RECEIPT

Division of Water Rights

South Dakota Department of Water and Natural Resources

Pierre, March 30, 19 80

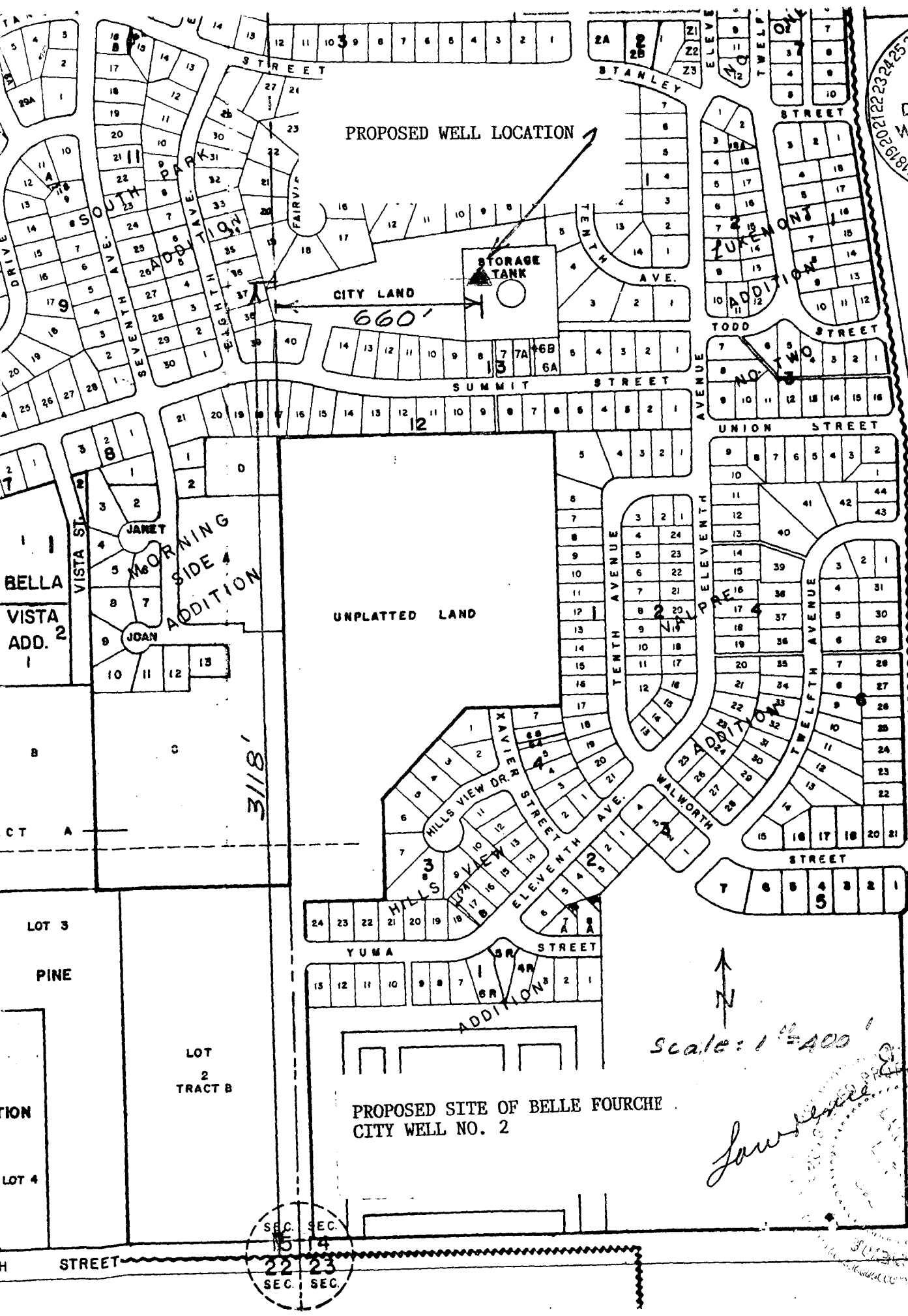
RECEIVED OF City of Belle Fourche, 506 6th Avenue, Belle Fourche, SD 57717

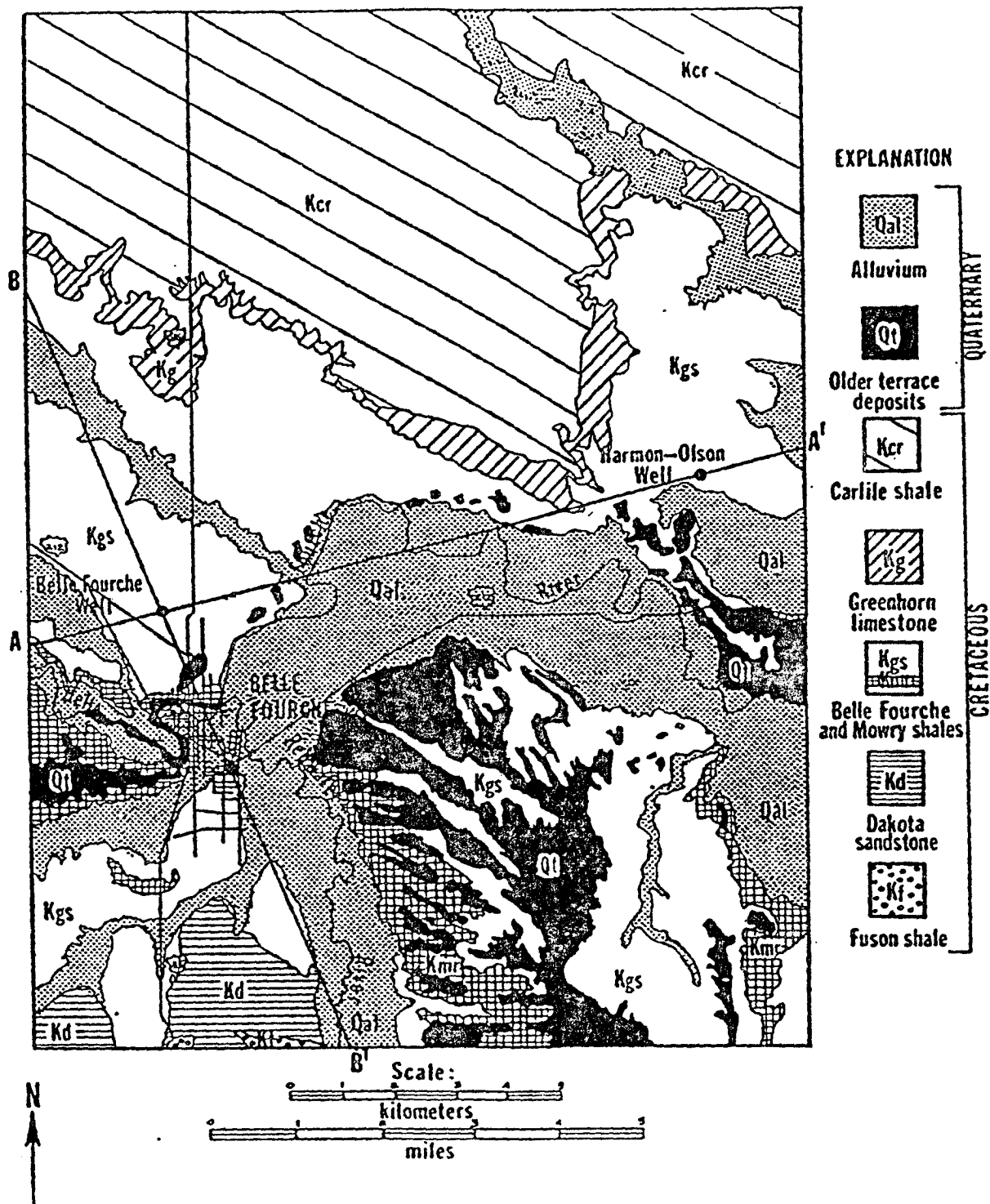
the following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. <u>1471A-1</u> to Appropriate Water, to construct works and to put water to beneficial use _____	50	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	50 00

By Jake Hatch
Chief Engineer

MAR 1930
DIVISION OF
WATER RIGHTS
Pierre, SD





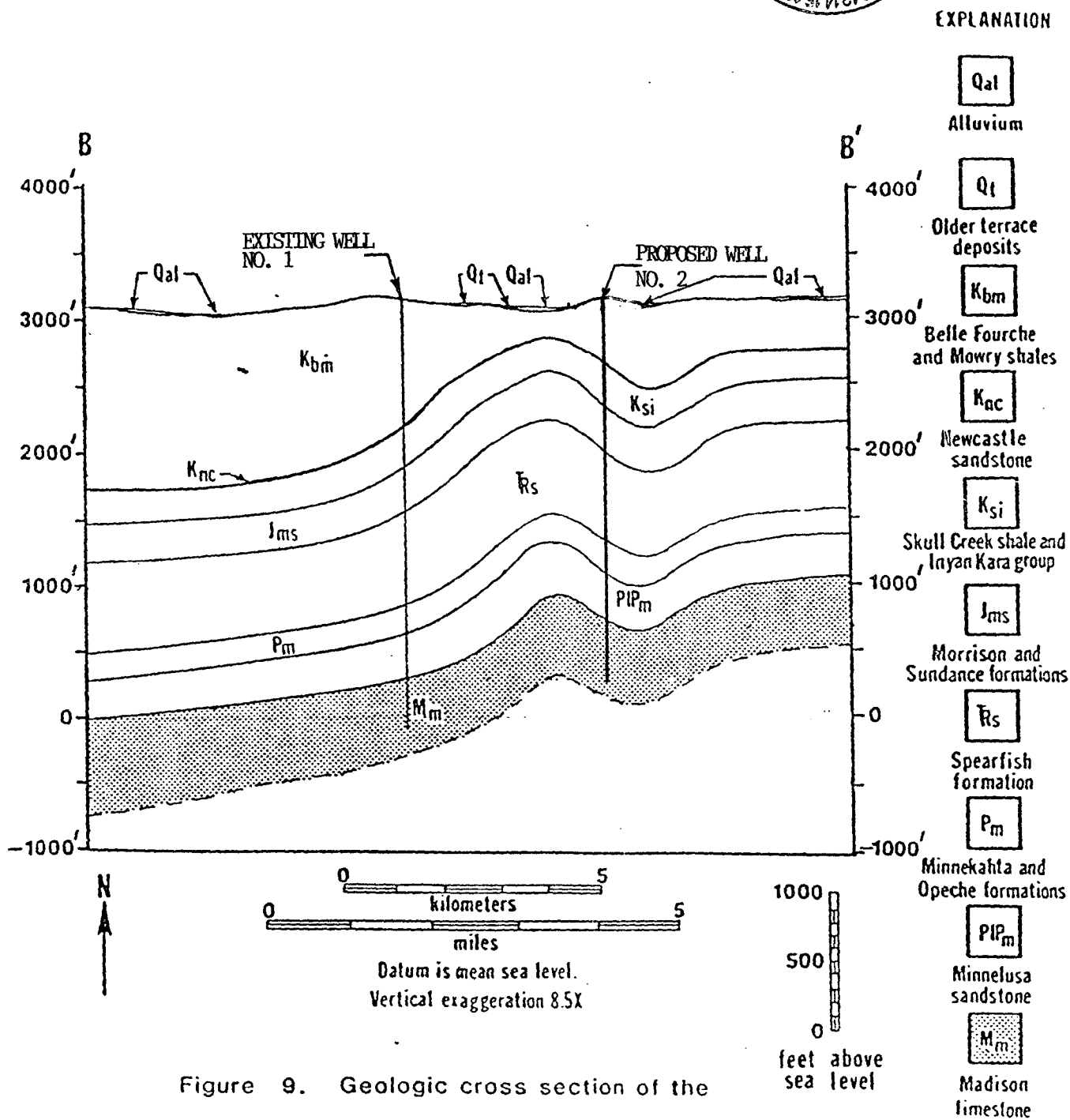


Figure 9. Geologic cross section of the
Belle Fourche area.

Information above is from a study conducted by the South Dakota School of Mines and Technology in 1989 titled "Geothermal Water Utilization for the City of Belle Fourche".

605-892-3006

SOUTH DAKOTA WATER WELL COMPLETION REPORT

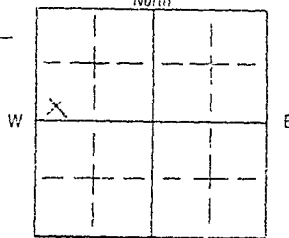
10-85

Location SW 1/4 NW 1/4 Sec 14 Twp 8N Rg 2E

County

Butte

North



Please mark well location with an "X"

1 mile

Well Completion Date Sept. 1991

PROPOSED USE:

☐ Domestic ☒ Municipal ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Stock

Method of Drilling:

Mud Rotary

CASING DATA:

☒ Steel ☐ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
6.3 LB/FT	16 IN	0 FT	39 FT	24 IN
40.45 LB/FT	10 3/4 IN	0 FT	1103 FT	13 1/2 IN
26.7 LB/FT	7 3/4 IN	1073 FT	2324 FT	9 3/4 IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUT:

Was the well grouted? ☒ YES ☐ NOTo what depth? 2324 FEETWhat is grouting material? CementIf cement, number of sacks? 765Describe grouting procedure pressure grouted through casingWhat was grout weight? 16 LB/GALSCREEN: ☐ Perforated pipe ☐ Manufactured

Diameter _____ IN Length _____ FEET

Material _____

Slot Size _____ Set From _____ Feet To _____ Feet

Slot Size _____ Set From _____ Feet To _____ Feet

Slot Size _____ Set From _____ Feet To _____ Feet

Other information _____

Well Owner: Att: City Engineer

Name City of Belle FourcheAddress 606 6th Ave. Belle Fourche, SD 57717

Well Log:

Depth

Formation	From	To
Skull Creek	0	218
Full River	218	304
Furn	304	352
Lakota	352	502
Morrison	502	528
Sundance	528	852
~~Minnetakhta~~ Spearfish	852	1633
Minnetakhta	1633	1680
Opeche	1680	1780
Minnelusa	1780	2260
Madison	2260	2815

STATIC WATER LEVEL 0 FeetIf flowing: closed in pressure 175 PSIGPM flow 1500 through 3 inch pipeControlled by ☒ Valve ☐ Reducers ☐ Other

If other: specify _____

Can well be completely shut in? yes

WELL TEST DATA:

☐ Pumped☐ Bailed

Describe: _____

☐ Other

Pumping Level Below Land Surface

_____ ft. After _____ Hrs. pumped _____ GPM

_____ ft. After _____ Hrs. pumped _____ GPM

_____ ft. After _____ Hrs. pumped _____ GPM

REMARKS:

This well was drilled under license # 331

And this report is true and accurate.

Drilling firm TAYLOR DRILLING COMPANY

Signature of License Representative:

Ralph Taylor

Signature of Well Owner:

Date

8/20/93

STATE OF SOUTH DAKOTA

THIS IS TO CERTIFY THAT THE MICROGRAPHIC IMAGE APPEARING ON THIS SLIDE OF MICROFILM IS AN ACCURATE REPRODUCTION OF THE ORIGINAL RECORD AND WAS MICROFILMED IN THE REGULAR COURSE OF BUSINESS ACCORDING TO THE PROVISIONS OF SECTION 1-27.4 OF THE SOUTH DAKOTA CODIFIED LAWS. IT IS FURTHER CERTIFIED THAT THE PHOTOGRAPHIC PROCESS USED FOR MICROFILMING OF THE ABOVE RECORDS WAS IN A MANNER AND ON MICROFILM WHICH MEET THE RECOMMENDED REQUIREMENTS OF ADMINISTRATIVE RULES OF SOUTH DAKOTA 10:04.01 AND 10:04.02 FOR MICROGRAPHIC REPRODUCTIONS.

REDUCTION RATIO

25:1

ROLL NUMBER

U-9

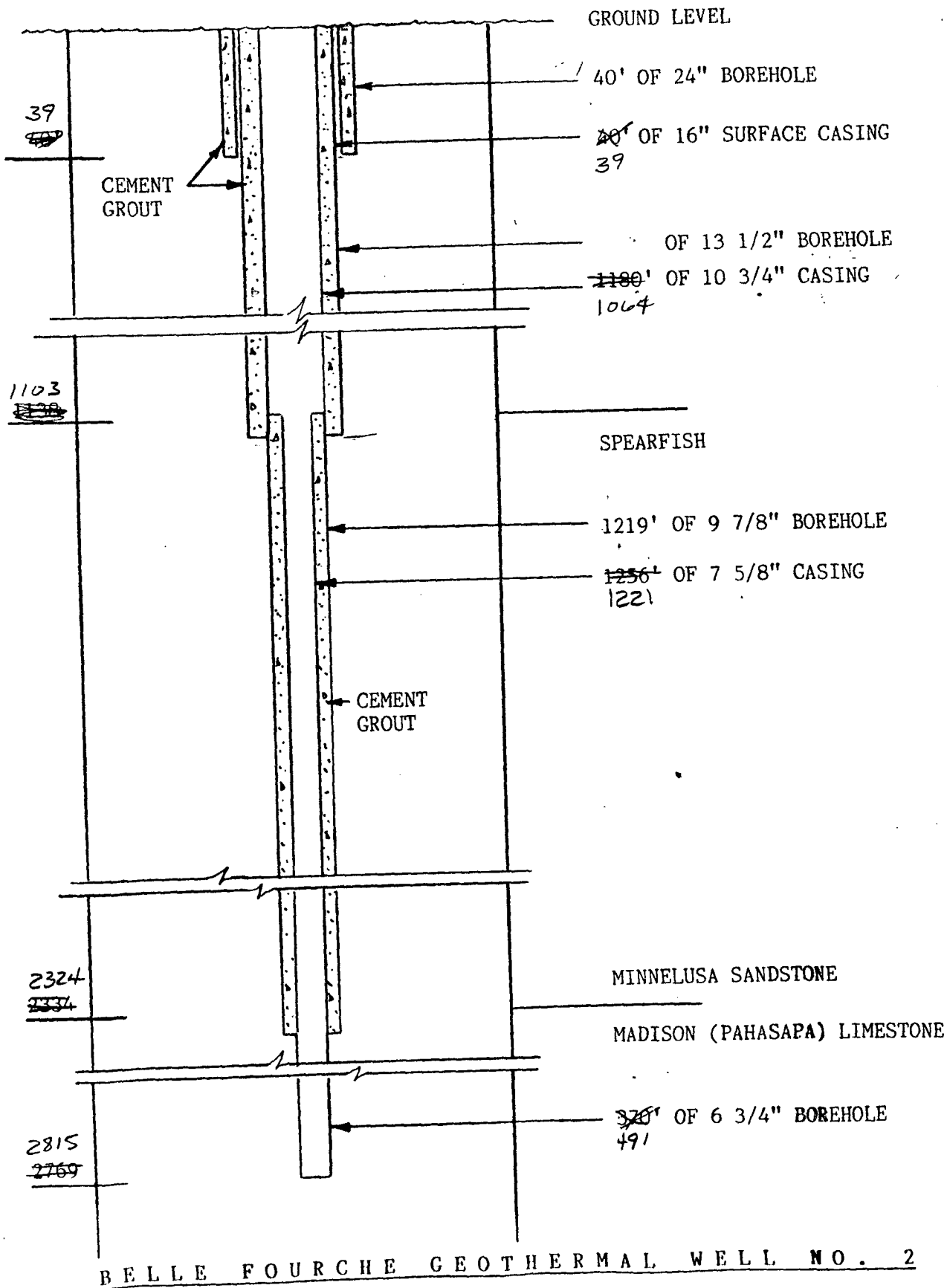
GATE MICROFILMED

3-18-94

CAMERA OPERATOR SIGNATURE

Chet. M. M. M.

MICROFILM CERTIFICATE OF AUTHENTICITY

WELL DESIGN

CITY OF BELLE FOURCHE, BELLE FOURCHE, SOUTH DAKOTA

City Hall, 606 6th Avenue

Belle Fourche, SD 57717

At the New Center of the Nation

EQUAL OPPORTUNITY EMPLOYER

MARCH 23, 1990



MR. RON DUVALL
NATURAL RESOURCES ENGINEER
523 EAST CAPITOL
PIERRE, SD 57501-3181

REF: APPLICATION TO CHANGE DIVERSION POINT OF PERMIT NO. 1481-1

DEAR MR. DUVALL:

ENCLOSED PLEASE FIND AN APPLICATION TO CHANGE THE DIVERSION POINT OF WATER WELL PERMIT NO. 1481-1, WHICH WAS GRANTED IN MARCH OF 1990. ALSO ENCLOSED IS A \$50.00 CHECK.

WE HAVE RE-EVALUATED CONDITIONS AND FIND WE CAN SAVE APPROXIMATELY \$130,000.00 BY MOVING THE WELL.

YOURS TRULY,

LARRY E. LITTLE
CITY ENGINEER

LEL:SS
ENCL.

REPORT ON APPLICATION NO. 1481A-1
City of Belle Fourche
April 5, 1990

Application No. 1481A-1 proposes to change the location of one well. Permit No. 1481-1 authorizes a water appropriation of 2.23 cubic feet of water per second (cfs) from one well (Madison Limestone Aquifer) approximately 2800 feet deep to be located in the SW1/4 SW1/4, section 11, T8N, R2E, Butte County, South Dakota. This application proposes to amend Permit No. 1481-1 to change the diversion to a well 2948 feet deep located in the SW1/4 NW1/4, section 14, T8N, R2E. Water is to be used for municipal and geothermal heating/cooling purposes by the City of Belle Fourche.

DISCUSSION

Permit No. 1481-1 was approved by the Water Management Board at their April 7, 1990 meeting and authorized an appropriation of 2.23 cfs from a well 2800 feet deep. This application, if approved, proposes to change the location of the well and will not have any effect on the diversion rate. The proposed well depth has changed from about 2800 feet to 2948 feet below ground surface. The producing aquifer will still be the Madison Limestone.

AQUIFER Madison Limestone (MDSN)

AQUIFER INFORMATION AND CHARACTERISTICS

The Madison Formation is made up of limestone and dolomite in which water movement is a function of intergranular porosity, fractures, and solution cavities. The aquifer outcrops south of Spearfish in the Black Hills where it forms a plateau 35 square miles in area. In the Belle Fourche area, the thickness is 650 feet to 700 feet at a depth to the formation of approximately 2800 feet. The Madison is under artesian conditions in this region with wells completed in the formation expected to flow in excess of 500 GPM (Kyllonen, 1987). The formation underlies about 19 million acres in South Dakota with 644,827,200 acre-feet of recoverable water in storage (Allen, 1984). With regard to geothermal potential, the well proposed in this application will be expected to have a water temperature of about 83 F (Rahn, 1989). In general, the proposed well is expected to have characteristics similar to the city's existing Madison well (flow rate, shut-in pressure, temperature, etc.). It should be noted, however, that the presence of fractures and solution cavities in the formation makes flow rates somewhat unpredictable.

REVIEW OF AREA WATER RIGHTS

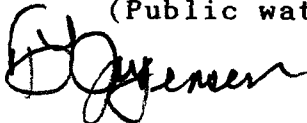
According to the 1988 Irrigation Report, there are a total of 13 permits that appropriate a total of 15,982.75 acre-feet from the Madison for irrigation purposes. Most of the water used from this formation; however, is for municipal purposes. Area water rights are as follows:

513-1	1.11 cfs	118.7 acres (irrigation)
826-1	0.80 "	56.2 acres (irrigation)
1143-1	0.06 "	housing development
1195-1	0.10 "	industrial
1219-1	1.63 "	municipal
1321-1	0.10 "	domestic
1431-1	0.11 "	industrial

Since the formation is under artesian conditions in the area, the potential for well interference is a concern. The results of pump tests show that well spacing in a well field should be at least 1/2 mile with a preferred minimum spacing of one mile, if feasible (Gries, 1977). The change of the well location proposed in this application will have a minimal effect on area wells in this formation.

CONCLUSIONS

1. Application No. 1481A-1 proposes a change in well location with no change in the diversion rate of 2.23 cfs (1000 GPM) as authorized in Permit No. 1481-1.
2. Well interference should not be a problem with proper well spacing. However, until site specific pump tests are conducted, well interference cannot be adequately assessed.
3. The well must be valved as per ARSD 74:02:04:73 and controlled so that there is no waste of water.
4. The well must be completed in accordance with 74:02:04:30 (Public water supply well grouting requirements).



Terry L. Jorgensen
Natural Resources Engineer
Division of Water Rights

Approved by:



Gale N. Selken, P.E.
Natural Resources Engineer IV

REFERENCES

- Division of Water Rights, 1988, Irrigation Report by Aquifer, DWNR, Division of Water Rights, Joe Foss Building, Pierre, SD.
- Allen, Johnette C., Iles, Derric L., Petres, Anthony K., 1984, Analysis of Groundwater and Streamflow Data Western Dakotas Region of South Dakota, Task 3 and 4: Groundwater Resource Inventory, DWNR, Division of Geological Survey, Vermillion, SD.
- Gries, J.P., 1977, Geothermal Applications on the Madison (Pahasapa) Aquifer System in South Dakota, South Dakota School of Mines and Technology, Rapid City, SD.
- Kyllonen, David P., Peter, Kathy D., 1987, Geohydrology and Water Quality of the Inyan Kara, Minnelusa, and Madison Aquifers of the Northern Black Hills, South Dakota and Wyoming, and Bear Lodge Mountains, Wyoming, Water-Resources Investigations Report 86-4158, U.S. Geological Survey, Rapid City, SD.
- Rahn, Perry H., Getty, Michael G., Krause, Wayne B., 1989, Geothermal Water Utilization for the City of Belle Fourche, South Dakota, South Dakota School of Mines and Technology, Rapid City, SD.

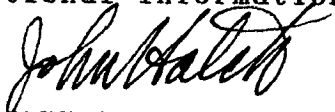
RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 1481A-1, City of Belle Fourche

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. 1481A-1, City of Belle Fourche, 606 6th Avenue, Belle Fourche SD.

The Chief Engineer is recommending APPROVAL of Application No. 1481A-1 because 1) the proposed diversion can be developed without unlawful impairment of existing rights, 2) the proposed use is a beneficial use and 3) in the public interest with the following qualifications:

1. The well authorized by Permit No. 1481A-1 shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted with cement (bottom to top) from the producing formation to the surface pursuant to Section 74:02:04:30.
2. 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.
3. The well approved under this permit shall be valved and the flow reduced to the amount needed or to a minimum when not being used. The well shall also be equipped with a pressure gauge and a record kept of any pressure fluctuations. Such records shall be available to the Chief Engineer upon request. If this well is abandoned or the permit cancelled, the well must be plugged in accordance with specifications of the Water Management Board.

See the attached report for additional information.


JOHN HATCH, Chief Engineer
April 12, 1990



Department of Water & Natural Resources

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

April 13, 1990

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

Robert L. Helmer, Mayor
City of Belle Fourche
606 6th Avenue
Belle Fourche, SD 57717

Dear Mr. Helmer:

Water Permit Application No. 1481A-1 for municipal use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice of hearing has been sent to the Publisher of the Belle Fourche Post printed at Belle Fourche SD. For your information, a copy of the notice is enclosed. Copies of the report and the Chief Engineer's recommendation are also enclosed. Please review the notice 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 your Notice of Intent to Appropriate Water and to arrange for payment. Early contact with the paper can eliminate delays. The publisher has been instructed to publish your notice once each week for two consecutive weeks with the last publication to occur twenty days before the board meeting. We must receive Proof of Publication before the application can be considered by the Water Management Board.

Sincerely,

A handwritten signature in cursive script that reads "Eric Gronlund".

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

**SOUTH Dakota Department of
Water & Natural Resources**

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

April 13, 1990

Belle Fourche Post
Box 400
Belle Fourche, SD 57717-0400

ATTN: Legal Publications:

Enclosed is a Notice of Hearing on Application No. 1481A-1 to be published twice. Please publish the first notice on or before April 19, 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 Belle Fourche, 606 6th Avenue, Belle Fourche, SD 57717.

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

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 19, 1990 with 2nd publication 7 days later. The applicant is responsible for payment.

NOTICE OF HEARING on Application No. 1481A-1
to Amend Water Permit No. 1481-1

Notice is given that the City of Belle Fourche, 606 6th Avenue, Belle Fourche, SD 57717 has filed an application for a water permit to change the location of one Madison Formation well. Permit No. 1481-1 authorizes a water appropriation of 2.23 cubic feet of water per second from one well 2800 feet deep to be located in the SW1/4 SW1/4 of Section 11-T8N-R2E. This application proposes to amend Permit No. 1481-1 to change the well location to the SW1/4 NW1/4 of Section 14-T8N-R2E. Water from the well approximately 2,948 feet deep is to be used for municipal and geothermal heating/cooling purposes by the City of Belle Fourche.

Pursuant to SDCL 46-2A-2, the Chief Engineer of the Water Rights Division recommends APPROVAL of Application No. 1481A-1 because 1) existing rights will not be unlawfully impaired, 2) it is a beneficial use of water and 3) 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)
 County Battle) ss.

I, Rhonda Schults

certify that the attached printed Notice was taken
 from the Belle Fourche Daily Press

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 Battle Fourche

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

April 19, 1990

April 26, 1990

(Signature)

(Title)

(Date Signed)

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.

2/4/19-26

Cost of Printing: \$38⁰⁰

NOTICE OF HEARING
 on Application No. 1481A-1
 to Amend Water Permit
 No. 1481-1

Notice is given that the City of Belle Fourche, 606 6th Avenue, Belle Fourche, S.D. 57717 has filed an application for a water permit to change the location of one Madison Formation well. Permit No. 1481-1 authorizes a water appropriation of 2.23 cubic feet of water per second from one well 2,800 feet deep to be located in the SW1/4 SW1/4 of Section 11-T8N-R2E. This application proposes to amend Permit No. 1481-1 to change the well location to the SW1/4 NW1/4 of Section 14-T8N-R2E. Water from the well approximately 2,948 feet deep is to be used for municipal and geothermal heating/cooling purposes by the City of Belle Fourche.

Pursuant to SDCL 46-2A-2, the Chief Engineer of the Water Rights Division recommends APPROVAL of Application No. 1481A-1 because 1) existing rights will not be unlawfully impaired, 2) it is a beneficial use of water and 3) 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, 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) 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 S.D. 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



SOUTH Dakota Department of
Water & Natural Resources

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

JUL 10 1990

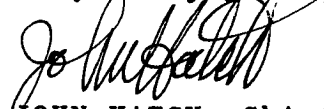
Robert L. Helmer, Mayor
City of Belle Fourche
606 6th Ave
Belle Fourche SD 57717

Dear Mayor Helmer:

Enclosed is Water Permit No. 1481A-1 as approved by the Water Management Board authorizing you to construct your water diversion system and put the water to beneficial use, not exceeding the limits as specified in the Water Permit.

Also enclosed is Form 10, 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 License may be issued, thus completing your acquisition of a Water Right.

Very truly yours,


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.



NOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USE

Date 2-12-93

TO: Water Rights Division, DWNR
Joe Foss Building
Pierre SD 57501-3181

FROM: City of Belle Fourche, 606 6th Avenue , Belle Fourche, SD 57717
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. 1481A-1.

Water Permit No. 1481A-1 states that the diversion system is to be constructed by March 7, 1995, and that the water it put to beneficial use by March 7, 1999.

The diversion system was completed on 7-1-92.
Applying the water to beneficial use was completed on 6-12-92.

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

Larry E. Little
signature Larry E. Little



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

May 18, 1994

Permit No. 1481A-1

Willard Noziska, Finance Officer
City of Belle Fourche
606 6th Ave.
Belle Fourche, SD 57717-1496

Dear Mr. Noziska:

The inspection of your water use system and the inspection of the extent of application of water to beneficial use, as developed under Water Permit Nos. 1481-1 and 1481A-1, has been completed. Your final water right document, the Water License, can now be issued. Upon licensing, the applicable portions of Water Permit No. 1481-1 will be incorporated into 1481A-1.

Statutes require that we charge a \$50.00 fee for the inspection and issuance of the Water License. Upon receipt of the \$50.00 fee from you, we will begin processing your Water License.

Please Remit fee to:
Department of Environment & Natural Resources
Water Rights Division
523 E. Capitol
Pierre, SD 57501-3181

South Dakota Water Law 46-5-30.1 requires that a permit holder may not divert water until the \$50.00 license fee has been paid. Please contact us if you have any questions.

Sincerely,

Cheryl F. Frost
Secretary
Water Rights Division
(605) 773-3352

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

Permit No. 1481A-1
Belle Fourche - 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 the City of Belle Fourche of 606 6th Avenue, Belle Fourche, SD 57717 holder of Permit No. 1481-1 and 1481A-1, bearing the priority of December 20, 1989 authorizing the diversion of 2.23 cu. ft. per second of groundwater for municipal purposes, in Butte County.

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

- A. Works used to divert the water:
A flowing well
- B. Works used to transport water to place of use:
150 feet of 8-10 inch steel pipe.
- C. Works used to apply water to beneficial use:
Water is stored in a 1.5 mg storage tank.

The system is in the following condition Excellent. The point of diversion is located approximately 655 feet east, 2150 feet south from the Northwest corner of Section 14, T8N-R2E (SW1/4 NW1/4). The works are capable of diverting and conveying to the place of use 2.23 cu. ft. per second of water which is to be used for municipal. Water has been put to beneficial use to the maximum extent as follows:

Water is used for municipal uses for the City of Belle Fourche needs.
The license should be issued for 2.23 cfs.
Applicable permit qualifications have been complied with: Yes ☒ No

Exceptions to compliance are: None Date: 8/19/1993



M. Rassool Ahadi
Natural Resources Engineer III
DENR, Water Rights Division

REPORT ON INSPECTION OF PERMIT NO. 1481-1 and 1481A-1

DATE: 8/19/1993

DIVERSION POINT LEGAL LOCATION: SW1/4 NW1/4 Section 14, T8N-R2E

WELL INFORMATION:

- 1) Well Drilling Firm: Taylor
- 2) No. of Wells 1
- 3) Depth(s) 2815 feet
- 4) Well log is available Y
- 5) Comment: The well flows about 1200 gpm at 150 psi. It is, however controlled to have a flow of around 1000 gpm. The well automatically shutoffs off when the storage tank is full.

Casing:

- 1) Diameter 7-16 inches
- 2) Length 2300 feet
- 3) Type Steel

Screen:

- 1) Type None

DISTRIBUTION LINES OR CANALS:

- 1) Type Steel
- 2) Size 8-10 inches
- 3) Length 150 feet

11) Comments :

PERMIT QUALIFICATIONS AND REGULATIONS:

- 1) Special qualifications to permit being abided by Y
- 2) All structures, wells and lands on map Y

RECEIPT

414196

Division of Water Rights

South Dakota Department of Environment and Natural Resources

Pierre, _____ June 9 _____, 19 94

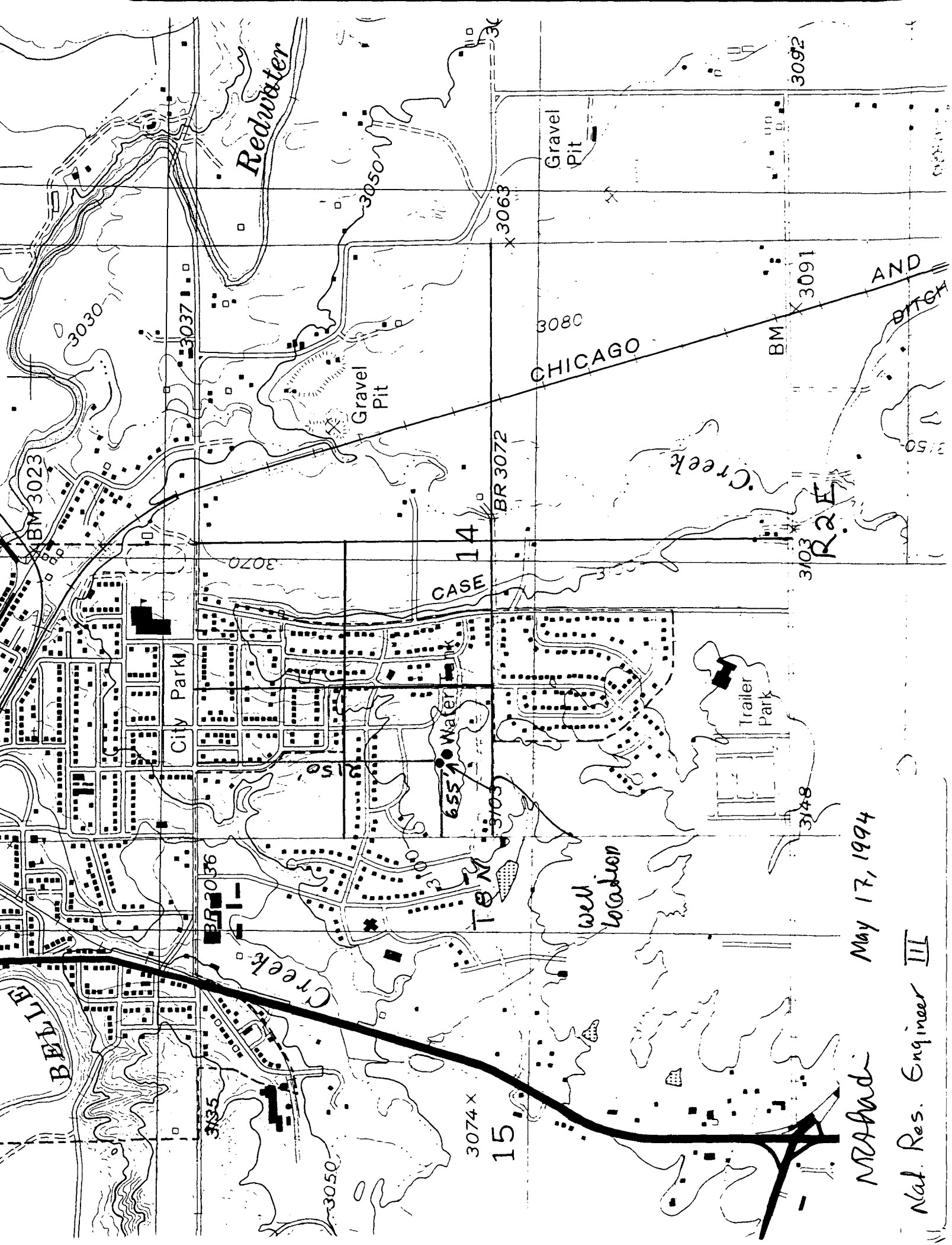
RECEIVED OF City of Belle Fourche, 606 6th Ave, Belle Fourche SD 57717-1496

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>1481A-1</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 Blatch*
Chief Engineer



May 17, 1994

NRABadi

Nat. Res. Engineer III

STATE OF SOUTH DAKOTA
WATER LICENSE NO. 1481A-1

(1) The City of Belle Fourche, of 606 6th Avenue, Belle Fourche, SD 57717-1496 made Application No. 1481A-1, March 28, 1990 for a water permit to appropriate no additional cubic feet of water per second from groundwater (one Madison Formation well), Butte County, South Dakota for municipal and geothermal heating and cooling purposes. Permit No. 1481A-1, with a priority date of December 20, 1989 (established under Water Permit No. 1481-1) 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 March 7, 1995 and for the application to beneficial use of said water on or before March 7, 1999. On February 17, 1993, the permit holder submitted a "Notice of Completion of Works and Application of Water to Beneficial Use". The "Notice" stated the diversion system was completed on July 1, 1992.

Water Permit No. 1481A-1 amended Water Permit No. 1481-1 to change the location of the point of diversion from the SW 1/4 SW 1/4 Section 11, T8N, R2E to the SW 1/4 NW 1/4 Section 14, T8N, R2E. Water Permit No. 1481A-1 did not allow for an increase in the diversion rate.

The applicable portions of Water Permit No. 1481-1 have been incorporated into this Water License No. 1481A-1.

(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 2.23 cubic feet of water per second for beneficial use. The location of the diversion point is approximately 655 feet east and 2150 feet south of the NW corner of Section 14, T8N, R2E (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 Belle Fourche of 606 6th Avenue, Belle Fourche, SD 57717-1496 the holder and/or owner of Incorporated Water Permit No. 1481A-1 is issued a license to appropriate water, the right to use 2.23 cubic feet of water per second from groundwater (one well) with a priority date of December 20, 1989 from the location specified in (2) of this license. The water will be used for municipal and geothermal heating and cooling purposes. This license is subject to any limitations or qualifications listed in Incorporated Water Permit No. 1481A-1 and subject to South Dakota State Law.



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

DEC 28 1994

date



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

DEC 28 1994

1481A-1

Willard Noziska, Finance Officer
City of Belle Fourche
606 6th Avenue
Belle Fourche, SD 57717-1496

Dear Mr. Noziska:

Enclosed is Water License No. 1481A-1. This is the final water right document completing your process of obtaining a Water Right. Enclosed is Receipt No. 414196 in the amount of \$50.00 which you paid for the inspection 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. 1481A-1, 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 Division
(605) 773-3352

gm
enclosures

NOTE: The applicable portions of Water Permit No. 1481-1 have been incorporated into this Water License No. 1481A-1.