

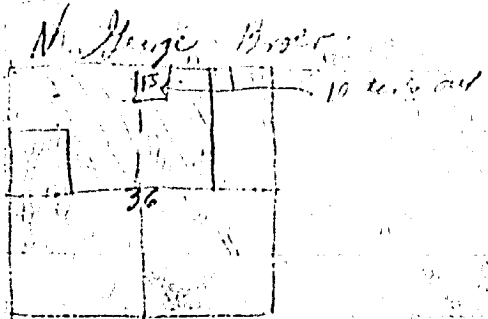
1. Considered 1-22, 1976
2. Name of Applicant GEORGE G. BROER
3. Post Office Address HURON
4. Amount of water claimed 2.0
5. Source of water supply GROUNDWATER (131' DEEP WELL)
6. Water to be used for IRRIGATION
Acres to be irrigated 280
7. Water to be diverted and used in BEADLE county
about 105.1W miles of HURON
8. Proof of Publication Received 1-16-76

285 A. in form of. Published in State
Small 3076-3 A)

George G. Broer
Well depth 131 ft., static 51 ft.
Pumping 1350 gpm. Capacity 2300 gpm.
Engine 3306 Cat. Diesel Cycle
HP. 170, S/N # 66026112
Aurora Valve Line
No 37670733 Type 11RH
Stage 6, 12" head
Big Boss pump - S/N 7278
Helson P 200, S/N CC 7727
Mogylator 1 1/2"

Big Boss P 200, Helix pump S/N CC 5088
S/N 7277

6.0 ft. High 11" dia. in water
4.200 ft. High 11" dia. in water



For well Equip from permit 2501-3

Have permit or notice in Dec 76,
but in for a well on the above pump
from well in " 2501-3.

No. 2501-15Map No. 1873-3 Water Division No. 3 JAMES RIVER District
(Blanks to be filled by the Engineer for the W. R. C.)

APPLICATION FOR PERMIT

11:37

To Appropriate Water within the State of South Dakota

(NOTE--Draw a line through items not applicable)

1. Name of Applicant George G. Bracer
Postoffice address Huron, State S. Dakota
If a corporation show date and place of incorporation _____
2. Method of accomplishing work (contract, employment of others, or by direct labor) direct labor
3. Name of diversion work George G. Bracer Unit No. 1
4. Amount of water claimed (cubic feet per second) 2.0
5. Source of water supply ground water
6. Location of point of diversion A POINT IN THE SW¹SW¹, SECTION 25, T104N, R62W
County Beadle
7. Annual period or periods during which water is to be used April - October
8. Use to be made of water. (Irrigation, industrial, municipal, commercial, recreation, etc.) Irrigation
9. For irrigation use. Total number of acres to be irrigated 280

List below each forty acre subdivision, or lot, or fraction thereof and show number of acres to be irrigated in each.

Land Description	No. Acres Irr.	Land Description	No. Acres Irr.
<u>SW¹ 25-109-62</u>	<u>140</u>	<u>SE¹ 26-109-62</u>	<u>140</u>

Attach sheet if more space is needed

10. Time required to complete construction of water supply system 5 years. Additional time required to complete application of water to the proposed beneficial use 2 years.
11. Choice of newspaper for Notice of Intent to Appropriate Water publication Daily Plainsman Huron, S.D.
12. Principal Features of the Proposed Water Supply System.

A. Works proposed to divert water from its natural source.

Bowl Pump

B. Works proposed to transport water to place of use.

Main Line

C. Works proposed to apply water to beneficial use.

Gun Type
~~Center Pivot~~

Estimated Total Cost \$ _____

Attachments: Attach Form 2A if diversion from a well or dugout, or if storage of water, is proposed. Attach map.
(See instructions concerning preparation.)

STATE OF SOUTH DAKOTA

County of BeadleI, George G. Bracer the applicant, certify that I have read the foregoing application and have examined the attached map and that the matters therein stated are true and that I intend, and am able to complete the necessary construction.Signed George G. BracerSubscribed and sworn to before me this 15 day of October, 1975

Notary Public (or other qualified officer)

James M. Jones

WATER RIGHT APPLICATION APPROVAL

The Water Rights Commission hereby approves Water Right Application No. 2501-3
GEORGE G. BROER Rte #4 HURON
 (Applicant) (Post Office Address)
SOUTH DAKOTA 57350 With the following modifications:
 (State)

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

Date of first receipt of application DECEMBER 24 1975
 Date of return to applicant for correction, amendments or changes required 19
 Date of receipt of corrected application 19
 Approved JANUARY 22 1976 Recorded in Book 14 Page 256

WATER RIGHT PERMIT NO. 2501-3

The Water Rights Commission hereby grants and issues this Water Right Permit No. 2501-3 authorizing the construction of the water use system and the putting of water to beneficial use as stated in the Application and as modified in the Water Right Application approval, subject, however, to the following limitations and conditions:

1. The date from which applicant may claim right is DECEMBER 24 1975
2. The equivalent of at least one-fifth of the work above specified is to be completed on or before JULY 22 1978
3. The whole of said work is to be completed on or before JANUARY 22 1981
4. The limit of time from proof of beneficial use of water appropriated in accordance herewith is JANUARY 22 1983
5. The water appropriated shall be used for the purpose of IRRIGATION
6. The prior right of all persons who, by compliance with the laws of the State of South Dakota, have acquired a right to the use of water must not be injuriously affected by this appropriation.
7. The amount of the appropriation herein granted shall not exceed 2.0 cubic feet per second; neither shall it exceed the capacity of the above described water supply system, nor shall it exceed the amount of water needed for beneficial uses served, and if for the irrigation purposes said appropriation must be limited to not more than 3 acre feet per acre per year and be limited to not more than one-seventieth (1/70) of one cubic foot of water per second of time for each acre of land to which water is actually and beneficially applied for irrigation on or before JANUARY 22 1983; said water to be used during the following described annual period: APRIL - OCTOBER

Witness my hand this 2ND day of FEBRUARY 1976

WATER RIGHTS COMMISSION

By: [Signature]
 Chief Engineer, Executive Officer

Certificate of Construction Issued 19

Water License Issued 19

PAGE NO.

S.W. 25-109-62 Beadle Co. 12/13/75

12/13/75

15

Lloyd Peterson
LYBEMAN Jr.

JOB NAME

LOCATION

DATE _____

RIG NO.

FOREMAN^{Jr.}

Jt No.	DEPTH	TIME	Test Hole # 1	REMARKS	DESCRIPTION
1	20		0-20	Yellow Clay Some traces of Gravel	
2	35		20-35	Blue Clay w/gravel streaks	S.W. 25-109-62
3	50		35-50	Sandy Blue Clay	Headle County
4	65		50-65	Blue Clay	
5	80		65-80	Sand Streaks w/Blue Clay	
6	95		80-95	Fine to Medium Sand Some Blue Clay	
7	110	120 TD	95-110	Fine to Medium Sand Good Has Coal	
8	125		110-125	Coarse Sand Real Good	
9	131		125-131	Pea Size Gravel	
					*1
				40 ft. Slotted 4" PVC	
				80 ft. Blank 4" PVC	
				1500 lbs. Concrete Sand	
				1 used 5" Drag Bit	
				1 used 7 7/8" Rock Bit	
				Pumped 50 GPM	
				Water head 50 ft.	

12. Principal Features of the Proposed Water Supply System (continued.)

D. Well Information or Estimates

(1) Drill Hole, Diameter _____, Depth _____

(2) Casing, Type _____, Diameter _____ Thickness _____
(wood, concrete, steel, etc)

(3) Perforated Screen

Type _____, Diameter _____, Length _____

(4) Gravel Pack, Thickness _____, Length of gravel pack _____

E. Dugout Information or Estimates.

(1) Surface dimensions _____, Depth _____

F. Fill out for Either a Well or a Dugout.

Log will be furnished by driller.

(1) Water Bearing Materials. (Please attach a copy to test well log if available.)

Character of Water bearing materials _____

Depth to top of water bearing material _____

Depth to bottom of water bearing material _____

Thickness of water bearing material _____

Depth to water (ground surface to water level) _____

(2) Distance to nearest existing household or livestock watering wells.

On same owner's property 110 rds. On property owned by others 150 rds.

G. Water Storage Dams.

If the proposed water use system contains one or more water storage dams, please show in the space below, the height, maximum water depth, surface area and storage capacity of each storage dam. The location of each water storage dam should be shown on the water right map.

A. J. ...

Signature of Applicant

December 19, 1975



Mr. George G. Broer
Huron, SD 57350

Dear Mr. Broer:

The water sample received here December 16 (75-1143) has been analyzed. You designated it as your #1 well in the southwest quarter, section 25-109-62.

The analysis report is enclosed for your use and safe keeping. I am also enclosing a copy of extension circular 44 which explains some of the difficulties that may be encountered in the use of low quality or marginal waters on questionable soil. Both of these situations exist in many places in Beadle County. However, most of the soils in the area which you intend to irrigate (southeast quarter 26 and southwest quarter 25) are fairly well suited to irrigation. The Tetonka and Hoven silt loams in the northwestern part of southeast quarter of 26 and the Ludley-Stickney soils through the eastern edge of southeast quarter of 26 are the poorest soils in the whole half-section. They could be irrigated, however, if certain management techniques are observed. You should use this water as infrequently as possible, and by this I mean no more than 3 or possibly 4 times in any one growing season, and when you do irrigate you should do a thorough job of replenishing the soil moisture throughout the depths of the soil profile. This may mean that you use as much as 5 or 6 inches in certain irrigation operations. If you observe the above principles and also occasionally do a thorough job of irrigating just before freeze-up in the fall, you will probably be able to manage the salt carried in this irrigation water with satisfactory performance of crops for many years. However, frequent, light irrigations and never irrigating in the late fall to cause leaching will certainly lead to problems within 10 or 12 years, perhaps sooner.

I am sending your application materials and a copy of this letter, and of the water analysis to the State Conservation Commission for their action.

Sincerely yours,

L. O. Fine
L. O. Fine

Water Quality Lab

LOF:ckb

Enclosures

cc: State Conservation Commission, D. Pahl, Dick Fadden, Huron Drilling Co.

STATE CONSERVATION COMMISSION
SUPPORTING INFORMATION
FOR APPROPRIATION OF GROUND WATER IN ACCORDANCE
WITH SDCL 46-6-3 AS AMENDED
(This Form Required for Proposed Well Irrigation Only)

FOR COMMISSION USE:

Irrigation System: _____

Water Quality: _____

Soils Capability: _____

Approved: 11/11/75

Disapproved: _____

NAME: George A. Breer
ADDRESS: Huron, So. Dakota
COUNTY: Beadle

LEGAL DESCRIPTION

1. WELL LOCATION: SW 1/4 25-109-62
2. AREA TO BE IRRIGATED: 280 acres

TYPE OF IRRIGATION

3. GRAVITY _____ SPRINKLER (Indicate Type): Gun Type
4. CROPS TO BE IRRIGATED: alfalfa, corn, small grains

LAND CAPABILITY FOR IRRIGATION

5. PERCENTAGE OF SLOPE: attached sheet
6. PHYSICAL SOILS CLASSIFICATION FOR IRRIGATION: Map and Legend attached

WATER QUALITY (To Be Completed by Commission)

7. SAMPLE NO: 75-1143
8. SALINITY: EC = 1517 μ mhos/cm (high)
9. SODIUM: SAR = 2.16 (low)



I do hereby certify that a chemical analysis of the ground water to be
acquired for irrigation from South Dakota State University and:
the land capability for irrigation information has been acquired from

Soil Science Dept (S.C.S.)

and:

that the legal description for the location of the well and land to be
irrigated is true and correct.

James H. H. H.

Subscribed and sworn before me this

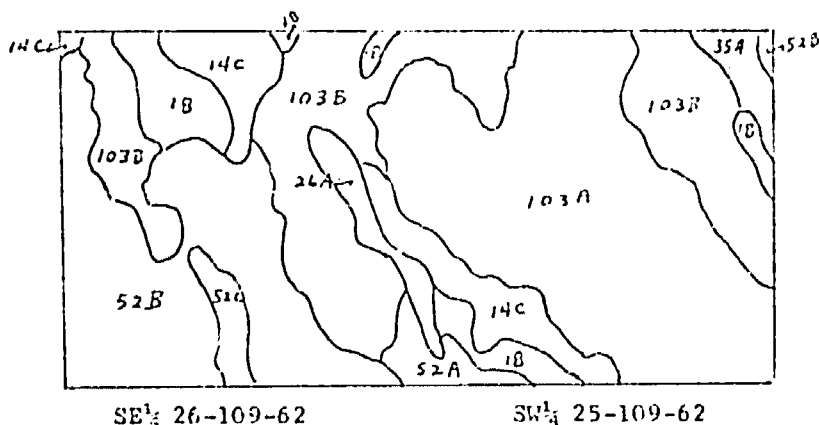
15 day of December 19 75.

James H. H. H.

Resident of James H. H. H.

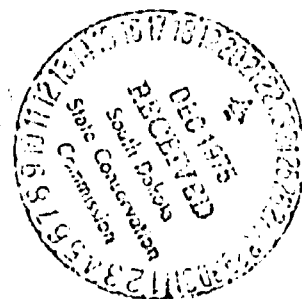
(Title). Notary Public 11-6-1976

SOIL MAP



SOILS LEGEND

- 14C** Hand-Ethan loams, 6 to 9 percent slopes
This unit consists of deep well drained loamy soils with calcareous substratums. Permeability is moderately slow. The subsoils contain 30-35% clay. Most of the slopes in these areas are less than 8 percent. Capability unit IVe3, LRA 55.
- 18** Tetonka and Hoven silt loams
This unit consists of poorly drained soils in enclosed depressions. Permeability is very slow and surface drainage is lacking. Dense compact subsoils and ponding generally limit these soils for irrigation. Drainage of these soils is desirable under irrigation. Capability unit IVw1, LRA 55.
- 26A** Dudley-Stickney silt loams, 0 to 3 percent slopes
This unit consists of moderately well drained soils with 4 to 10 inches of friable loamy surface over dense claypan subsoils. Very slow permeability and salts in the subsoil make these soils poorly suited for irrigation. Capability unit IVs2, LRA 55.
- 35A** Blendon fine sandy loams, 0 to 2 percent slopes
The Blendon are moderately well drained deep sandy loamy soils underlain by loamy sands and fine sands below depths of 40 inches. Permeability is moderately rapid to rapid. Some pedons have loamy materials below 40 inch depths. Capability unit IIIe7, LRA 55.



52A Carthage fine sandy loam, 0 to 3 percent slopes

This unit consists of moderately well drained soils on nearly level to gently undulating uplands. The soils have sandy loam surfaces and subsoils which grade to clay loam till at 20 to 40 inch depths. Permeability is moderately rapid in the sandy loam upper part and moderate in the underlying clay loam materials. Surface runoff is medium.

Capability unit IIIe7, LRA 55.

52B Carthage fine sandy loam, 3 to 6 percent slopes

This unit has soils as described above in the 52A mapping unit. It differs in the degree of slope.

Capability unit IIIe8, LRA 55.

52C Carthage fine sandy loam, 6 to 15 percent slopes

This unit consists of moderately well drained soils on moderately sloping uplands. The soils have sandy loam surfaces and subsoils which grade to clay loam till at 20 to 40 inch depths. The clay loam till is exposed on the tops and crests of knolls and ridges. Permeability is moderately rapid in the sandy loam upper part and moderate in the underlying clay loam materials. Surface runoff is rapid.

Capability unit IVe6, LRA 55.

103A Hand-Bonilla loams, 0 to 3 percent slopes

The Hand are deep, well drained fine loamy soils formed in loamy glacial drift. They have loam surface layers and loam to light clay loam subsoils which grade to calcareous loamy glacial drift at about 22 inch depths. Permeability is moderate in the solum and moderate to moderately slow in the substrata. The Bonilla are deep, dark colored, moderately well drained fine loamy soils. They have loam surface layers about 12 inches thick and moderately permeable light clay loam or loam subsoils underlain by calcareous loamy glacial drift at about 36 inches. Permeability in the subsoil is moderate to moderately slow.

Capability unit IIe2, LRA 55.

103B Hand-Bonilla loams, 3 to 6 percent slopes

The Hand and Bonilla soils are as described in the 103A mapping unit above. This unit differs in the degree of slope.

Capability unit IIe1, LRA 55.

George Broer unit

Soil Conservation Service
Beadle Conservation District



REPORT OF ANALYSIS
 Water Quality Laboratory
 Water Resources Research Institute
 South Dakota State University
 Brookings, South Dakota 57006



Submitted by: George S. Probst
 Address: Huron, SD 57350
cc: Huron Drilling, Inc.
P.O. Box 1422
Huron, SD 57350

Date Rec'd: Dec 16, 1971
 Sample No.: 75-1143
 Identification: 11-11
23, 2-1091, 1-62

WATER ANALYSIS

Calcium (Ca)	120	ppm*	6.00	me/l**
Magnesium (Mg)	51	ppm	2.11	me/l
Sodium (Na)	112	ppm	4.96	me/l
Potassium (K)	14	ppm	0.35	me/l
Sulfate (SO ₄)	395	ppm	8.22	me/l
Nitrate (as N)		ppm		me/l
Chloride (Cl)	102	ppm	3.37	me/l
Bicarbonate (HCO ₃)	429	ppm	7.04	me/l
Carbonate (CO ₃)		ppm		me/l
Iron (Fe)		ppm		me/l
Fluoride (F)		ppm		g.p.g.***
Hardness (EDTA as CaCO ₃)		ppm		
Alkalinity (Methyl Orange)	352	ppm (as CaCO ₃)		
Alkalinity (Phenolphthalein)	0	ppm (as CaCO ₃)		
Electrical Conductivity	1,117	micromhos per cm at 25° C.		
Sodium Adsorption Ratio	8.26	% of cations		
Sodium	31.35	me/l		
Residual sodium carbonate	0.60			
pH	7.39			
Others:				

*ppm=parts per million
 **me/l=milliequivalents per liter
 ***g.p.g.=grains per gallon

COMMENTS: Total cations 15.32 me/l
 Total anions 16.13 me/l

By: Chisley

Service Performed	Amount Due
Irrigation analysis	16.00 P.D.

Make checks payable to: Water Quality Laboratory

Cut along dotted line and return the lower portion with payment

Sample No. 75-1143

Amount Enclosed \$

Signed

J. 2501-3

Publish first publication, on or before January 8, 1976

**NOTICE
INTENT TO APPROPRIATE WATER**

Pierre, South Dakota 57501

December 30, 1975

Notice is hereby given that George G. Broer
whose post office address is Huron, South Dakota, has made an application in accordance
with the provisions of the water laws of South Dakota for a permit to appropriate for beneficial use
2.0 cubic feet of water per second of time from the ground water through the
Broer Unit No. 1, the point of diversion of which is to be located in the

SW $\frac{1}{4}$ SW $\frac{1}{4}$
of Section 25, Twp. 109N, Range 62W. Said water to be used for the purpose
of providing irrigation on portions of the following described land:

SW $\frac{1}{4}$, Section 25, SE $\frac{1}{4}$, Section 26, T109N, R62W

This application No. 2501-3 will be considered by the Water Rights Commission at their office at
Pierre upon the 22nd day of January, 1976, at 2:30 P.M. All interested
persons may appear and be heard.

WATER RIGHTS COMMISSION

By:

BURTON F. JONES
Water Rights Specialist

BFJ/bw
cc: George G. Broer

Form 8 - Proof of Publication - Notice of
Intent to Appropriate Water

No. 2501-3

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County Beadle) ss.

I, Dorothy Murphy hereby

certify that the annexed printed copy of Notice of Intent to Appropriate
Water was taken from the Huron Daily News

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 Huron

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

January 7, 1976

January 14, 1976

Dorothy Murphy
(Signature)

Bookkeeper
(Title)

1-14-76
(Date Signed)

F.P. 17-76 L.P. 1-14-76

NOTICE INTENT TO
APPROPRIATE WATER
Pierre, South Dakota 57501
December 29, 1975

Notice is hereby given that: George
G. Broer whose post office address is
Huron, South Dakota, has made an
application in accordance with the
provisions of the water laws of South
Dakota for a permit to appropriate
for beneficial use 2.0 cubic feet of
water per second of time from the
ground water through the Broer Unit
No. 1, the point of diversion of which
is to be located in the SW 1/4 SW 1/4 of
Section 25, Twp. 139N, Range 62W,
Said water to be used for the purpose
of providing irrigation on portions of
the following described land: SW 1/4
Section 25, T 5E 1/4, Section 26,
T109N, R62W.

This application No. 2501-3 will be
considered by the Water Rights
Commission at their office at Pierre
upon the 22nd day of January, 1976,
at 2:30 P.M. All interested persons
may appear and be heard.

WATER RIGHTS COMMISSION
By: BURTON F. JONES
Water Rights Specialist
No. 2 (adv.)

RECEIVED
JAN 16 1975

STATE WATER RIGHTS COMMISSION
PIERRE, SOUTH DAKOTA

NE⁴ 32-104-~~54~~

Irving Wesel 6-1-76
352-5485 at Home
Huron.

called about

George Broer

R R 4

3-352-9421

Huron

352-5586

Is migrating 3rd quarter
authorised 2 quarters

Wesel says one
of his dryouts has
gone dry & Bad one
is going down

1 mi from
largest
dry well

George Broer

6-7-76

50' water from top of casing
pumping into well 25' from well
131' main well depth

check on
his
~~proving~~
appl.

increase 200 additional acres
new appl.
old well increase from 2.0 cfs to 4.0 cfs

Talked to Wessel & looked at
his (4) dugouts which are $1\frac{1}{2}$ to
3 miles from Broer. 3 of 4 had water in them.

In some artesian head in
Broer's well, but his water
level is below the head of the
dugouts. 3 dugouts near Broer
have water in them.

It's a dry year, has been dry,
and moisture is not ~~in ground~~
near surface.

Conservation
Commission
Form WI 91

STATE CONSERVATION COMMISSION
SUPPORTING INFORMATION
FOR APPROPRIATION OF GROUND WATER IN ACCORDANCE
WITH SDCL 46-5-3 AS AMENDED
(This Form Required for Proposed Well Irrigation Only)

FOR COMMISSION USE
Irrigation System: _____
Water Quality: _____
Soils Capability: _____
Approved: (Signature)
Disapproved: _____

049.2-60

NAME: George G. Breer
ADDRESS: Huron, So. Dakota
COUNTY: Beadle

LOCAL DESCRIPTION

1. WELL LOCATION: S.W. 1/4 25-109-62
2. AREA TO BE IRRIGATED: 280 acres (SE 1/4 & SW 1/4 25-109-62)
3. TYPE OF IRRIGATION: _____
3. GRAVITY _____ SPRINKLER (Indicate Type): Gun Type
4. CROPS TO BE IRRIGATED: a (tall), corn, small grains

LAND CAPABILITY FOR IRRIGATION

5. PERCENTAGE OF SLOPE: attached sheet
6. PHYSICAL SOILS CLASSIFICATION FOR IRRIGATION: Map and Legend attached

WATER QUALITY (To Be Completed by Commission)

7. FAMILY NO: 75-1143
8. SALINITY: EC = 1517 μ mhos/cm (high)
9. SODIUM: SAR = 2.16 (low)





No. 4348-3

Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501

WATER RIGHTS DIVISION
Phone (605) 773-3352

NOV 2 1987

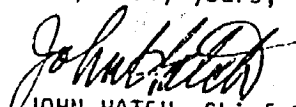
George Broer
RR 4, Box 95
Huron, South Dakota 57350

Dear Mr. Broer:

Enclosed herewith is, Water License No. 4348-3. This is the final water right document completing your process of obtaining a water right.

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.

Very truly yours,


JOHN HATCH, Chief Engineer
Water Rights Division

JH:ms

Enclosures

The applicable portions of Water Permit Nos. (2501-3) and 3076-3 have been incorporated into this Water License No. 4348-3.

WNR-817 3/83

Transmittal of Water License