

1. RE/Considered May 22 1980
2. Name of Applicant William L. Mae
3. Post Office Address Bruce, S.D.
4. Amount of Water Claimed 4.0
5. Source of Water Supply 2-75' Deep wells
6. Water to be used for irrig.
7. Acres to be Irrigated 307 maximum acre feet
8. Water to be diverted and used in Brookings County about 4-N, 6 miles West of Bruce
9. PROOF OF PUBLICATION Received _____

Not Received 9-2-77

APPLICATION

one well one quarter approved May 26, 1977

Approved 5/22/80 (other well & quarter)

Subject to WI & I.G.

Not Approved _____

Action deferred _____

Priority

Date

Received

June 21, 1976

Application Complete yes

no

FEE 8.00

6/21/76

Remarks _____

Date information and/or fee or corrected Application received _____
Period of Annual use Apr thru Oct

WATER QUALITY

Received yes 6/29/76 no APPROVED/CONDITIONAL (Circle one)

WI-1 Description same as application yes no _____ Remarks _____

Disapproved _____

Returned _____

Diversion Point _____

Centers of NW⁴ & SW⁴
19-112-51

Lands to be irrigated _____

W¹/₂ 19-112-51

WELL LOG

Remarks _____

Log on Form 2A

Driller Unknown

Licensed yes _____ no _____

Depth 75' both wells

MAP Map No. 2177-2 Map located In Water Right X Map file _____
Type of Map _____ drawn Prepared by W. A. S. M. A.

+++++

REVIEWED This Application was reviewed within 30 days of date received, accepted as complete, Number assigned and written up for advertisement before the Board on May 26, 1977.

James Winterkorn
(Signed) EW

+++++

PROTESTS Letters/Petitions in File - yes _____ no _____ Remarks _____

REMARKS Date _____
F.F. & C Final Decision, including F.F. & C of Law were adopted _____
OF LAW, Date _____
FINAL Final Decision mailed to parties and/or parties notified that Final Decision
DECISIONS was adopted _____
ETC.

Remarks: _____

No. 2843-3Map No. 2179-3 Water Division No. 3 BIG SIOUX RIVER District 1

(Blanks to be Filled by the Engineer for the W. R. C.)

APPLICATION FOR PERMIT

To appropriate Water within the State of South Dakota

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



1. Name of Applicant William L. Moore
 Postoffice address BYUCC, State South Dakota
 If a corporation show date and place of incorporation _____
2. Method of accomplishing work (contract, employment of others, or by direct labor) Contract & Direct Labor
3. Name of diversion work William L. Moore Irrigation Project #1
4. Amount of water claimed (cubic feet per second) 4.0
5. Source of water supply well
6. Location of point of diversion 1870' N 49° E of SW corner Sec 19-112-51 (well #1)
well #2 - 1870' N 136° E of NW corner Sec 19-112-51
 County Brookings
7. Annual period or periods during which water is to be used April through 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 307

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.
NW 1/4 NW 1/4 Sec 19-112-51	3.9	NW 1/4 Sec 19-112-51	3.9
NE 1/4 " " " " "	3.9	NE 1/4 " " " " "	4.0
SW 1/4 " " " " "	3.9	SW 1/4 " " " " "	3.8
SE 1/4 " " " " "	4.0	SE 1/4 " " " " "	3.9

Attach sheet if more space is needed

10. Time required to complete construction of water supply system Five years. Additional time required to complete application of water to the proposed beneficial use three years.
11. Choice of newspaper for Notice of Intent to appropriate Water publication Volga Tribune
12. Principal Features of the Proposed Water Supply System.
- A. Works proposed to divert water from its natural source. well with electrically driven down well turbine
- B. Works proposed to transport water to place of use. closed conduit
- C. Works proposed to apply water to beneficial use. center pivot irrigation machine

Estimated Total Cost \$ 40,000

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 Brookings

I, William L. Moore 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

William L. MooreSubscribed and sworn to before me this 12 day of July 1976
James P. [Signature]
 Notary Public (or other qualified officer)

WATER RIGHT APPLICATION APPROVAL

The Water Rights Commission hereby approves Water Right Application No. 2843-3

WILLIAM H. MOE
(Applicant)

BRUCE
(Post Office Address)

SOUTH DAKOTA 57020
(State)

With the following modifications:

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 wells so there is not a reduction of needed water to equate domestic wells or in irrigation wells having rights.

THIS PERMIT IS APPROVED
TO IRRIGATE ONE Q.
PERMIT WILL BE

ISSUED FROM ONE WELL
D. THE REMAINDER OF THE
PERMIT STATUS.

SUPERSEDED BY PERMIT ISSUED MAY 28, 1980

Date of first receipt of application JUNE 21, 19 76

Date of return to applicant for correction, amendments or changes required —, 19 —

Date of receipt of corrected application AUGUST 5, 19 76

Approved MAY 26, 19 77, Recorded in Book 19 Page 86

WATER RIGHT PERMIT NO. 2843-3

The Water Rights Commission hereby grants and issues this Water Right Permit No. 2843-3 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 JUNE 21, 19 76
2. The equivalent of at least one-fifth of the work above specified is to be completed on or before NOVEMBER 26, 19 79
3. The whole of said work is to be completed on or before MAY 26, 19 82
4. The limit of time from proof of beneficial use of water appropriated in accordance herewith is MAY 26, 19 85
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 MAY 26, 19 85; said water to be used during the following described annual period: APRIL THRU OCTOBER

Witness my hand this 7TH day of SEPTEMBER, 19 77

WATER RIGHTS COMMISSION

By:

John H. Hahn
Chief Engineer, Executive Officer

Certificate of Construction Issued —, 19 —

Water License Issued —, 19 —

WATER RIGHT APPLICATION APPROVAL

The Board of Water Management hereby approves Water Right Application No. 2843-3

WILLIAM L. MOE BRUCE
(Applicant) (Post Office Address)
SOUTH DAKOTA 57020 With the following qualifications.
(State)

The Irrigation wells 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 adequate domestic wells or in irrigation wells having prior water rights.

This Permit is approved subject to the Irrigation water use questionnaire being submitted each year.

This Permit is issued and supersedes the Permit issued under the date of SEPTEMBER 7, 1977.

Date of first receipt of application JUNE 21, 1976
Date of return to applicant for correction, amendments or changes required _____, 19____
Date of receipt of corrected application AUGUST 5, 1976
Approved MAY 22, 1980, Recorded in Book 19 Page 86A

WATER RIGHT PERMIT NO. 2843-3

The Board of Water Management hereby grants and issues this Water Right Permit No. 2843-3 authorizing the construction of the water use system and the putting of water to beneficial use as stated in the Application and as qualified in the Water Right Application approval, subject, however, to the following limitations and conditions:

1. The date from which applicant may claim right is JUNE 21, 1976
2. The equivalent of at least one-fifth of the work above specified is to be completed on or before NOVEMBER 22, 1982
3. The whole of said work is to be completed on or before MAY 22, 1985
4. The limit of time from proof of beneficial use of water appropriated in accordance herewith is MAY 22, 1988
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 4.0 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 irrigation purposes said appropriation must be limited to not more than 2 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 MAY 22, 1988; said water to be used during the following described annual period: APRIL THRU OCTOBER

Witness my hand this 29th day of MAY, 1980

THE BOARD OF WATER MANAGEMENT

By: John Hatch
Chief Engineer, Water Rights

Certificate of Construction Issued _____, 19____

Water License Issued _____, 19____

Two nearly identical wells

Form 2A - Wells, Dugouts or Water Storage Dams (Supplement to form 2)

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

D. Well Information or Estimates

(1) Drill Hole, Diameter 30", Depth 75'
(2) Casing, Type Steel (wood, concrete, steel, etc), Diameter 14", Thickness 3/16"
(3) Perforated Screen.
Type Continuous Slot, Diameter 14", Length 15'
(4) Gravel Pack, Thickness 6", Length of gravel pack 20'

E. Dugout Information or Estimates

(1) Surface dimensions _____, Depth _____

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

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

Character of Water bearing materials 0' to 3' top soil, 3' to 50'
clay, 50' to 75' sand and gravel over
75' clay

Depth to top of water bearing material 50'
Depth to bottom of water bearing material 75'
Thickness of water bearing material 25'
Depth to water (ground surface to water level) 50'

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

On same owner's property 20 rds. On property owned by others 80 rds.

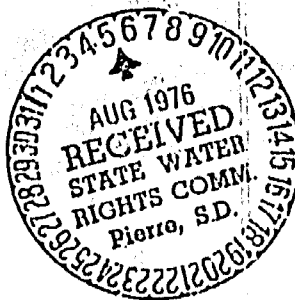
G. Water Storage Dams.

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.

	same property	other property
well #1	20 rds	80 rds
well #2	100 rds	90 rds

William L. Moe
Signature of Applicant

July 28, 1976



Mr. William L. Moe
Bruce, SD 57220

Dear Mr. Moe:

We have completed the analysis of your water sample (76-801) and the original copy is included herewith for your keeping. You will also find a copy of our AERS publication #13 with the quality of this water approximately plotted for irrigation use by means of the red cross in the chart on the outside back cover. You will see that it is in the high salinity, low sodium category. This water carries about 1.3 tons of salt for each acre foot of water you pump.

Accordingly, it is only moderately good for irrigation uses. The marsh area which you have in the southwestern portion of the tract is not suitable for irrigation. The Oldham silty clay is poorly drained and is a very poor prospect indeed for irrigation. The Poinsett silt loam is satisfactory but the Waubay silty clay loam nearly level in the central part of the tract is a doubtful prospect. It has a temporary water table most springs and this water table rises to within 3 feet of the surface quite commonly. Thus, there could easily be a salt problem in this whole area if you use this water in such a fashion as to cause the salt to accumulate near the surface. Such practices include frequent, light applications. This tends to aggravate salt accumulation in the upper part of the soil where most of the water is extracted. Accordingly, I recommend strongly against the use of a center pivot system unless it can be set so as to apply at least 3 inches each application and unless you agree to water this land only a maximum of about 3 times a growing season. Other practices such as frequent, light application will cause both an aggravation of the water table problem on the Waubay soil and accumulation of salts in the surface foot or two of soil. Both of these will detract seriously from the results you would normally get by irrigating crops in this area.

A copy of this letter is accompanying the application materials and a copy of the water analysis to the State Conservation Commission for their action.

Sincerely yours,

L. O. Fine

L. O. Fine
Water Quality Lab
IOF:ckb
Enclosures

cc: State Conservation Commission, D. Pahl
Don Boome, County Extension Agent



STATE CONSERVATION COMMISSION
SUPPORTING INFORMATION
FOR APPROPRIATION OF GROUND WATER IN ACCORDANCE
WITH SDCL 46-6-3 AS AMENDED
(THIS FORM REQUIRED FOR PROPOSED GROUND WATER IRRIGATION ONLY)

NAME William L Moe
ADDRESS Bruce, SD
COUNTY Brookings

LEGAL DESCRIPTION

1. WELL LOCATION NW 1/4 SW 1/4 of Sec 19 - 113 - 5 - 1
2. LOCATION OF AREA TO BE IRRIGATED W 1/2 of Sec 19 - 113 - 5 - 1

TYPE OF IRRIGATION

3. GRAVITY _____ TOWLINE _____ CENTER PIVOT ☒ GUN _____
4. CROPS TO BE IRRIGATED Corn + alfalfa

WATER QUALITY

5. SAMPLE NUMBER 76-801
6. SALINITY (EC X 10⁶) 1452 (high)
7. SODIUM (SAR) 0.29 (low)
8. RESIDUAL SODIUM CARBONATE (meq/l.) 0

I do hereby certify that a chemical analysis of the ground water representative of that used to irrigate shall be acquired from South Dakota State University and: the soils information has been acquired from _____ Conservation District, County Extension office or Soil Conservation Service.
and:
that the legal description for the location of the well and land to be irrigated is true and correct.

William L Moe
APPLICANT'S SIGNATURE

SUBSCRIBED AND SWORN BEFORE ME THIS
17 DAY OF July 19 76.

John S. Williams
(TITLE OR SEAL)

Albert J. Hoffert
APPROVED/DISAPPROVED

(SOILS INFORMATION ON REVERSE SIDE)

N

MAP



W20550019

NARRATIVE

Oc - Oldham silty clay loam

Pd - Poinsett silt loam

Mc - Marsh

Wa - Waubay silty clay loam - nearly level - good perme
mod well dr.

Pn - Poinsett - Base - Pierce Soils

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



Submitted by: William L. Moo
 Address: Irreco, SD 57220

Date Rec'd: July 13, 1976
 Sample No.: 76-801
 Identification: 611.75'
Sec. 19, T 112N, R 51W

WATER ANALYSIS

Calcium (Ca)	248	ppm*	12.40	me/l**
Magnesium (Mg)	68	ppm	3.58	me/l
Sodium (Na)	20	ppm	0.87	me/l
Potassium (K)	5	ppm	0.13	me/l
Sulfate (SO ₄)	410	ppm	8.53	me/l
Nitrate (as N)		ppm		me/l
Chloride (Cl)	2	ppm	0.07	me/l
Bicarbonate (HCO ₃)	468	ppm	7.68	me/l
Carbonate (CO ₃)	10	ppm	0.32	me/l
Iron (Fe)		ppm		me/l
Fluoride (F)		ppm		me/l
Hardness (EDTA as CaCO ₃)		ppm		g.p.g.***
Alkalinity (Methyl Orange)	384	ppm (as CaCO ₃)		
Alkalinity (Phenolphthalein)	16	ppm (as CaCO ₃)		
Electrical Conductivity	1452	micromhos per cm at 25° C.		
Sodium Adsorption Ratio	0.29			
Sodium	4.58	% of cations		
Residual sodium carbonate	0.00	me/l		
pH	7.83			

Others:

*ppm=parts per million

**me/l=millequivalents per liter

***g.p.g.=grains per gallon

COMMENTS: Total cations 16.98 me/l
 Total anions 16.60 me/l

By: Shirley Hutton

Service Performed

Amount Due

Irrigation analysis

\$8.00 PAID

Make checks payable to: Water Quality Laboratory

Cut along dotted line and return the lower portion with payment

Sample No. 76-801

Amount Enclosed \$

Signed

Permit No. 2843-3

Water Diversion No. 3 Sioux River Water District
10170202

CERTIFICATE OF CONSTRUCTION

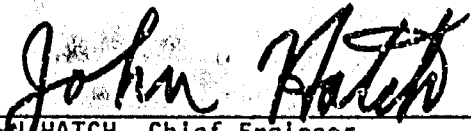
This is to Certify, That William L. Moe

_____ the holder _____ of
Permit No. 2843-3, issued upon Application No. 2843-3, bearing date of priority of June 21,
1976 authorizing the diversion of 4.0 cu. ft. per second of the waters of _____
groundwater (one well) County of Brookings, State of South Dakota at _____
a point north 47° east 2500 feet from the SW corner, Section 19, T112N, R51W

_____, for irrigation

purposes, has _____ complied with the provisions of the laws of the State of South Dakota relating to proof of
completion of the works of diversion set out and described in said Permit; that said works are found in satisfactory
condition for diverting and conveying to the place of intended use 1.08 cu. ft. per second of water.

Date October 21, 1980



JOHN HATCH, Chief Engineer
Water Rights Division

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 2843-3

(1) WHEREAS, On the 21st day of June A. D. 19 76
William L. Moe

made Water Right Application No. 2843-3 for a permit to use 4.0 cubic feet per second of the waters
of groundwater (one well)

County of Brookings, State of South Dakota, for Irrigation

purposes; and
(2) WHEREAS, On the 22nd day of May A. D. 19 80
2843-3, with a date of priority of June 21, 1976

was issued to said applicant _____ for the diversion of said water, and provided for the completion of construction of the water
supply system therein described on or before the 22nd day of May A. D. 19 80 and for the
application to beneficial use of said water on or before the 22nd day of May A. D. 19 88

and:

(3) WHEREAS, It is hereby certified that the applicant has complied with the provisions of the laws of the State of South Dakota
relating to completion of the construction of the water supply system and is entitled to divert 1.88 cubic feet
per second of water for beneficial use and,

(4) WHEREAS, It is hereby certified that the applicant has complied with the provisions of the laws of the State of South Dakota
relating to the application of water to beneficial use of the following extent,

to irrigate portions of the following lands all in Section 19, T112N, R51W

	acres
NW $\frac{1}{4}$ NW $\frac{1}{4}$	38
NE $\frac{1}{4}$ NW $\frac{1}{4}$	39
SW $\frac{1}{4}$ NW $\frac{1}{4}$	39
SE $\frac{1}{4}$ NW $\frac{1}{4}$	40
NN $\frac{1}{4}$ SW $\frac{1}{4}$	39
NE $\frac{1}{4}$ SW $\frac{1}{4}$	40
SW $\frac{1}{4}$ SW $\frac{1}{4}$	38
SE $\frac{1}{4}$ SW $\frac{1}{4}$	34
	307 total acres

(5) NOW, THEREFORE, By the virtue of the authority vested in us by the laws of the State of South Dakota, We hereby grant and confirm to William L. Mcc

_____ of Bruce SD
the holder _____ and owner _____ of said permit No. 2843-3 a water right, dating from June 21, 1975
_____ to use of 1.88 cubic feet per second of the waters
of groundwater (one well)

in the County of Brookings and State of South Dakota, or so much thereof as may be necessary for the
purposes hereinbelow mentioned, to be diverted at a point north 47° east 2500 feet from the SW corner,
Section 19, T112N, R51W

and conducted to and upon portions of land in Section 19, T112N, R51W more fully
described on the face of this license.

for the purpose of irrigation

Subject to any limitations listed in Water Right Permit No. 2843-3 and subject to the laws of the State of South Dakota.

WITNESS, My hand and seal of our office at Pierre, South Dakota
this 21st day of October A. D.
Nineteen Hundred and Eighty

WATER MANAGEMENT BOARD

By:

John Hatch
Chief Engineer, Executive Officer
JOHN HATCH



Department of Natural Resource Development

WATER RIGHTS COMMISSION

Joe Foss Building, . Pierre, South Dakota 57501

Phone 605/224-3151

August 12, 1976

William L. Moe
Bruce, South Dakota 57020

Dear Mr. Moe:

This will acknowledge receipt of your application to irrigate 307 acres from a 75 foot deep well.

The Commission is not acting on applications from the Sioux River area and areas of concentrated irrigation in Brookings and Hamlin Counties at the present time until effects of existing irrigation development can be monitored.

The application will be placed in a deferred status, retaining the priority, until the Commission starts considering applications in this area. You will be notified of further developments.

Sincerely,

BURTON F. JONES
Water Rights Specialist

BFJ/bw

cc and Receipt to John L. Wiersma, R.R. #2, Brookings, S.D. 57006

Form 6 - Notice of Intent to Appropriate Water

No. 2843-3

Publish first publication, on or before May 12, 19 77

NOTICE
INTENT TO APPROPRIATE WATER

Pierre, South Dakota 57501

March 28, 19 77

Notice is hereby given that William L. Moe
whose post office address is Bruce, 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
4.0 cubic feet of water per second of time from the ground water through the
William Moe Irr. Project # 1, the point of diversion of which are to be located in the
centers of the NW $\frac{1}{4}$ and SW $\frac{1}{4}$

of Section 19, Twp. 112N, Range 51W. Said water to be used for the purpose
of providing irrigation on portions of the following described land:

N $\frac{1}{4}$, Section 19, T112N, R51W

This application No. 2843-3 will be considered by the Water Rights Commission at their office at
Pierre upon the 26th day of May, 19 77, at 11:00 A.M. All interested
persons may appear and be heard.

WATER RIGHTS COMMISSION

By:

JAMES WINTERTON
Water Rights Specialist

BFJ/bw
cc: William L. Moe, Bruce, SD 57020

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

No. 2843-3

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County Brookings) ss.

I, Thomas G. Reynolds hereby
certify that the annexed printed copy of Notice of Intent to Appropriate
Water was taken from the Volga Tribune

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 Volga

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

April 21, 1977

April 28, 1977

Thomas G. Reynolds
(Signature)

Publisher
(Title)

April 28, 1977
(Date Signed)

NOTICE OF INTENT
TO APPROPRIATE WATER

Notice is hereby given that
William L. Moe whose post
office address is Bruce, 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
4.0 cubic feet of water per
second of time from ground
water through the William Moe
Irr. Project #1, the points of
diversion of which are to be
located in the centers of the
NW 1/4 and SW 1/4 of Section 19,
Twp. 112N, Rge. 51W. Said
water to be used for the purpose
of providing irrigation on
portions of the following
described land: NW 1/4, Section
19, T112N, R51W. This application No. 2843-3
will be considered by the Water
Rights Commission at their
office at Pierre upon the 26th
day of May, 1977, at 11:00 a.m.
All interested persons may
appear and be heard.

WATER RIGHTS COMM.

-s- James Winterton
Water Rights Specialist



2843-3



Department of Water & Natural Resources

Joe Foss Building
Pierre, South Dakota 57501

Water Rights, Water Management Division
(605) 773-3352

May 8, 1980

TO: Persons Interested in Deferred Applications in Brookings County

FROM: John Hatch, Chief Engineer, Water Rights

SUBJECT: Deferred Water Right Applications

The Water Management Board will reconsider deferred water right applications No. 2842-3 & 4467-3 Roger Saathoff, 2843-3 William Moe, 3203-3 Rita Ann Lamoureux, 3506-3 Cecil Hall, 3762-3 Steven D. Goodfellow, 3338-3 Gary D. Hansor, and 4403-3 Stots, Inc. in Brookings County at 3:00 pm, May 22, 1980, Civil Defense Meeting Room, State Capitol Building, Pierre SD.

This reconsideration hearing will be conducted in accordance with the provisions of SDCL 46-1-1 thru 46-1-9; 46-1-14; 46-2-9 thru 46-2-11; 46-2-13; 46-5-1 thru 46-5-8; 46-5-10 thru 46-5-22; 46-5-41; 46-6-3; 46-6-5; 46-6-6.1; 46-6-10; 46-6-3.1; 46-6-14 and Board Rules ARSD 52:01:01:01 thru 52:01:01:13.

These applications were previously deferred by the Water Rights Commission, (Water Management Board) pending staff investigation.

After reconsideration of the deferred applications the Board can approve, conditionally approve, defer, or deny all or part of the Applications.

This hearing is an adversary proceeding. Any person has the right to be present or to be represented by a lawyer. These and other due process rights will be forfeited if they are not exercised at the hearing. Decisions of the Board may be appealed to the Courts as provided by law.

Any handicapped person wishing to attend this hearing can contact the Water Rights Division, DWNR, Joe Foss Building, Pierre SD, prior to the hearing date for assistance to assure access to the hearing.

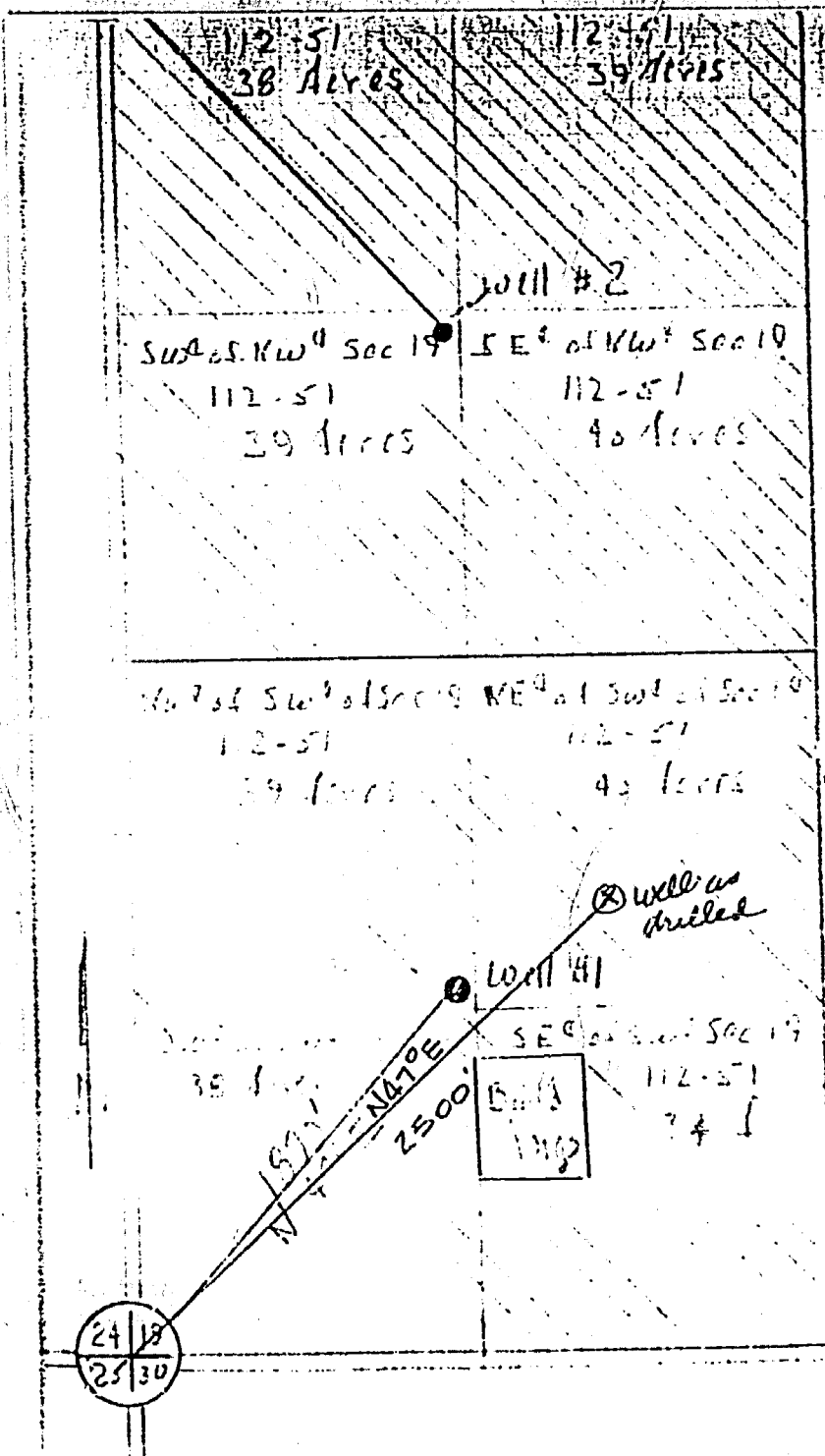
Very truly yours,

A handwritten signature in dark ink that reads "John Hatch". The signature is written in a cursive, flowing style.

JOHN HATCH, Chief Engineer
Water Rights, WMD

JH:kw

Equal Opportunity Employer



RECEIPT

WATER RIGHTS COMMISSION

State of South Dakota

No 4 7737

PIERRE, _____ October 20, 1930

RECEIVED OF William L. Mon, Bruce, SD 57020

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

Fee for Application for Permit to Appropriate Water No. _____ (examination, processing, recording and filing) _____	
Fee for Inspecting Construction, and Issuing Cert. of Construction No. 2843-3	50.00
Fee for Inspecting Beneficial Use, and Issuing Water License No. 2843-3	
Fee for Issuing Location Certificate-Dry Draw, No. _____	
Fee for filing _____	
Fee for certified copy of _____	
Fee for Print copy of map _____	
Fee for Certifying _____	
Fee for _____	
(any other work as provided by law)	
TOTAL	50.00

WATER RIGHTS COMMISSION

By *John Hatch*
Chief Engineer, Executive Officer
JOHN HATCH

Permit No. 2843-3Water Division 3 Big Sioux River Water DistrictREPORT OF EXAMINATION OF WORKS
AND/OR APPLICATION OF WATER TO BENEFICIAL USE

TO: WATER RIGHTS, WATER MANAGEMENT BOARD / FOSS BLDG., PIERRE, SOUTH DAKOTA 57501

I have this day made a thorough examination of the water use system constructed by WILLIAM L.MOE of BRUCE holderof Permit No. 2843-3, bearing date of priority of JUNE 21, 1976authorizing the diversion of 4.00 cu. ft. per second of the waters of GROUNDWATERfor IRRIGATION purposes, in BROOKINGS County.

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

The Water Use System consists of,

- A. Works used to divert the water: ONLY ONE WELL DRILLED
90' DEEP WELL WITH 16" STEEL CASING - 15' JOHNSON CONTINUOUS SLOT SCREEN
WESTERN LAND ROLLER 8" PUMP TYPE 8M 5-12CH
POWERED BY 75HP US ELECTRIC MOTOR TYPE RU
- B. Works used to transport water to place of use,
1500' OF 8" BURIED PLASTIC LINE TO PLOT
1200' OF 8" ALUMINUM MAINLINE
4000' OF 6" ALUMINUM MAINLINE
- C. Works used to apply water to beneficial use.
ELECTROGATOR 8 TOWER CP-1275' LONG WITH #100 END GUN
BOSS TRAVELLING GUN WITH NELSON GUN MODEL P-200
USES 1 1/2" & 1 5/8" RINGS - 660' OF 4 1/2" FLEXIBLE RUBBER HOSE

The system is in the following condition: GOODThe point of diversion is located N 47° E, 2500' FROM THE SW CORNER
SECTION 19, T112N, R51WThe works are capable of diverting and conveying to the place of use 1.88 (850 GPM)cu. ft. per second of water which is to be used for IRRIGATIONWater has been put to beneficial use to the maximum extent as follows: ALL IN SECTION 19, T112N, R51W

NW ^{1/4} NW ^{1/4}	38 ACRES	NW ^{1/4} SW ^{1/4}	34 ACRES
NE ^{1/4} NW ^{1/4}	39 "	NE ^{1/4} SW ^{1/4}	40 "
SW ^{1/4} NW ^{1/4}	39 "	SW ^{1/4} SW ^{1/4}	38 "
SE ^{1/4} NW ^{1/4}	40 "	SE ^{1/4} SW ^{1/4}	34 "

comprising a total of 307 acres of land.Date OCTOBER 28, 1980
William Jones
(Signature)

Water Rights Division - DWR
Conversation or File Documentation

File No. 2843-3

NAME OF PERSON OR FILE: William Moe

ADDRESS: RR 2, Box 17, Bruce COUNTY Brookings

DATE: 5/17/84 TELEPHONE 627-5250

RE: Irrigation (Questionnaire) submittal

COMMENTS:
Mr. Moe stated he did receive the prior notices
to submit the questionnaire and stated he did
irrigate during 1983 (Mr. Moe also has permit nos.
3650-3 and 3651-3) I took irrigation info
on phone.

He did not say why he did not return the
previous questionnaire.

File in Permit or other file as necessary. Use to document conversations and what the other party was told; why action or decision was made.

NAME: Henny

NORTHERN BROOKINGS COUNTY
Applications No. 2842-3, 2843-3, 3003-3, 3506-3, 3762-3 & 4467-3
April 28, 1980

The Water Management Board (formerly the Water Rights Commission) deferred action on all or parts of six applications in Hamlin and Brookings Counties.

The applications are located (see map) in an area of artesian head pressure and where a number of water permit applications have been approved. The Commission deferred action on the applications to obtain further information about the aquifer.

AQUIFER INFORMATION

The deferred applications are in an area of the Big Sioux Aquifer which changes from a water table to an artesian head pressure system. The aquifer material consists of sand and gravel and varies in saturated thickness from less than ten feet to sixty feet. The hydraulic gradient (direction of water movement) is from the northwest to the southeast into the Big Sioux River (see cross-section).

The Office of Water Rights presently has 12 observation wells (see map) located throughout the area. Hydrographs for six of the wells are attached (only the wells with the longest period of record were plotted). Short term records are the same as the other wells. The hydrographs show an upward trend in the water levels reflecting the relatively wet years of 1977 and 1978 occurring after the drought of 1975-76, which created historically low water levels. The hydrographs also show the effects of pumping on the artesian head. As the irrigation wells are pumped the water level will decline to the top of the aquifer and then recover when pumping ceases. This is a typical and predictable phenomenon.

The area covered by this report has a surface area of 44 square miles (see map page 5). Using an average saturated thickness of 40 feet (based on test drilling information) and a storage coefficient of 0.1 (from Report 102, Assad Bar "Hydrology of Lake Poinsett") the estimated storage would be:

$$\begin{aligned}\text{storage} &= (44\text{mi}^2) (5280 \text{ ft/mile})^2 (40 \text{ ft}) (0.1) / 43560 \text{ ac.ft.} \\ &= 112,640 \text{ ac.ft. (conservative)}\end{aligned}$$

The present approved applications pumping continuously for 90 days at approved diversion rate would need the following:

$$\begin{aligned}\text{Volume (ac.ft.)} &= \left[(60.36 \text{ cfs}) (60 \text{ sec/min}) (60 \text{ min/hr}) (24 \text{ hr/day}) (90 \text{ days}) \right. \\ &\quad \left. + 43560 \text{ ft}^3/\text{ac.ft.} \right] \\ &= 10,775 \text{ ac.ft.}\end{aligned}$$

$$\% \text{ of storage appropriated: } 10,775/112,640 = 10\%$$

The above storage values and percent appropriated show that water is available for appropriation.

DEFERRED APPLICATIONS

	<u>Priority</u>	<u>Date</u>	<u>Legal Description</u>
2842-3 Roger Saathoff	July 21, 1976		NW $\frac{1}{4}$ & SE $\frac{1}{4}$ & NE $\frac{1}{4}$ Sec 18, T112N, R51W 1 well and 2.82 cfs deferred
2843-3 William L. Moe	June 21, 1976		NW $\frac{1}{4}$ & SW $\frac{1}{4}$ Sec 19, T112N, R51W 1 well and 2.0 cfs deferred
3203-3 Rita Ann Lamoreaux	Aug 26, 1976		NE $\frac{1}{4}$ & SW $\frac{1}{4}$ & SE $\frac{1}{4}$ of SE $\frac{1}{4}$ Sec. 2, T112N, R51W 1.7 cfs, 1 well, and acreage deferred
3506-3 Cecil Hall	Dec 28, 1976		NW $\frac{1}{4}$ Sec 8, T112N, R51W 2.2 cfs, 1 well, and acreage deferred
3762-3 Steven D. Goodfellow	Feb 22, 1976		S $\frac{1}{4}$, NW $\frac{1}{4}$, NE $\frac{1}{4}$, SW $\frac{1}{4}$ Sec 30, T112N, R51W 1 well deferred
4467-3 Roger Saathoff	Dec 31, 1979		NE $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 18, T112N, R51W adds acreage and 2 wells to 2842-3

CONCLUSIONS

Considering the amount of water in storage, observation well hydrographs and amount of water appropriated; unappropriated water is available.

RECOMMENDATIONS

1. The Staff recommends approval of the deferred portion of Permit No. 2842-3 for Roger Saathoff with the following qualifications:
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 adequate domestic wells or in irrigation wells having prior water rights.
This permit is approved subject to the irrigation water use questionnaire being submitted each year.
2. The Staff recommends approval of the deferred portion of Permit No. 2843-3 for William L. Moe with the well interference qualification and the submittal of the irrigation questionnaire.
3. The Staff recommends approval of Application No. 3203-3 for Rita Ann Lamoreaux for 1.7 cfs, 1 well and 120 acres, with the well interference qualification and the submittal of the irrigation questionnaire.
4. The Staff recommends approval of Application No. 3506-3 for Cecil Hall for the NW $\frac{1}{4}$, Sec. 8, T112N, R51W for one point of diversion with withdrawal rate of 1.7 cfs of water with the well interference qualification and the submittal of the irrigation questionnaire.

- 3
5. The Staff recommends approval of the deferred portion of Permit No. 2762-3, Steven D. Goodfellow with the well interference qualification and the submittal of the irrigation questionnaire.
 6. The Staff recommends approval of Application No. 4467-3, Roger Saathoff, for lands described as the NE $\frac{1}{4}$ of NW $\frac{1}{4}$ of Sec 16, T112N, R51W. The Staff also recommends approval for two points of diversion with the well interference clause, which will have the priority date assigned to Permit No. 2842-3 as prescribed by the multiple well policy adopted by the Water Rights Commission.

GALE N. SELKEN
Hydrologist III

STATE OF SOUTH DAKOTA)
COUNTY OF HUGHES) SS

Swore to, before me, this 21st day of May, 1980

Lois L. Ries
Notary Public

LOIS L. RIES, Notary Public
My Commission Expires
February 3, 1983

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

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

5169-3

SEP 14 1989

William Moe
RR #2 Box 54
Bruce, SD 57220

Dear Mr. Moe:

Enclosed is Water License No. 5169-3. This is the final water right document completing your process of obtaining a Water Right. Enclosed is Receipt No. 411250 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. 5169-3, 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.

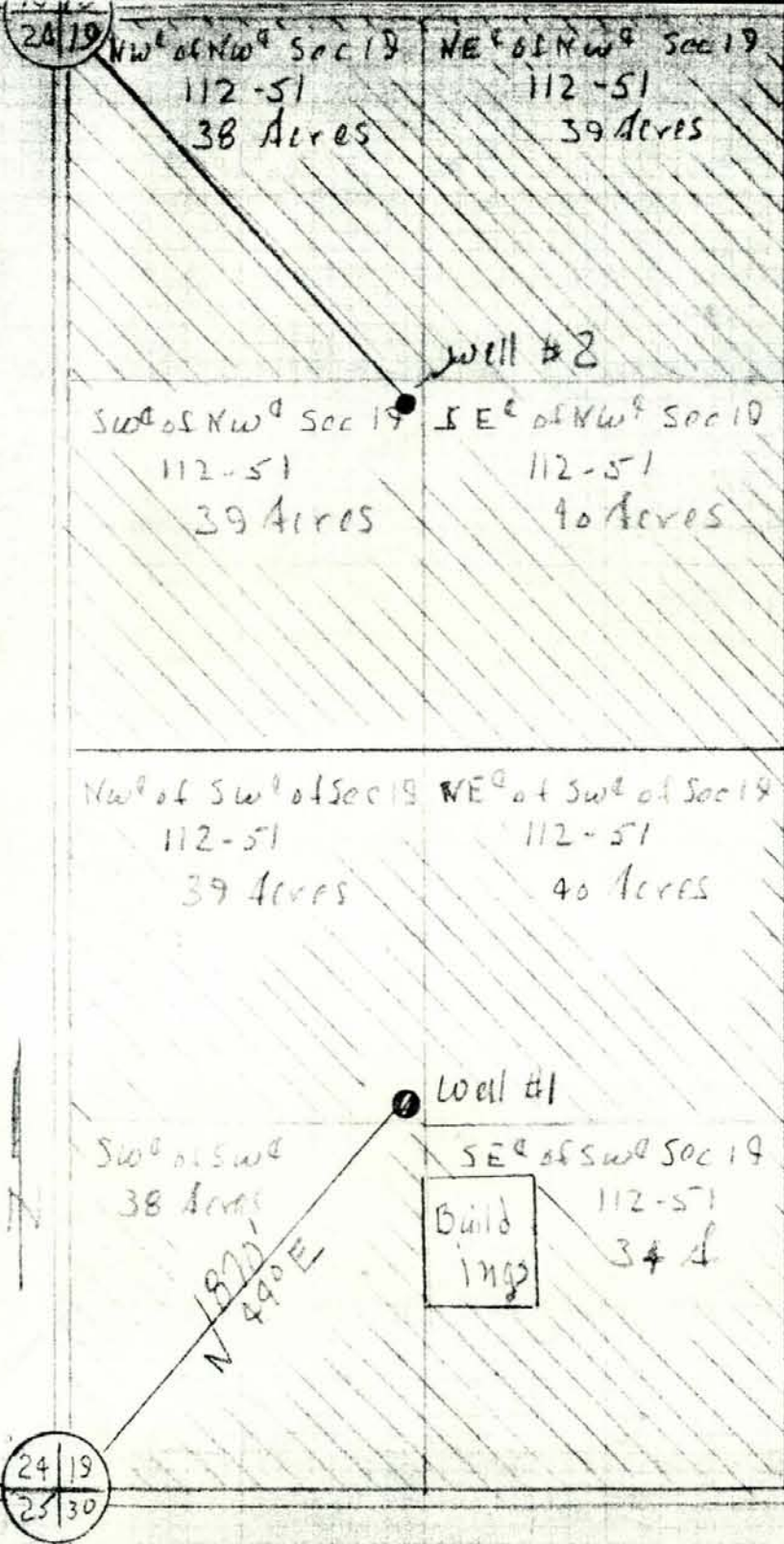
Very truly yours,

John Hatch
JOHN HATCH, Chief Engineer
Water Rights Division
(605) 773-3352

enclosures

Note: The applicable portions of Water Permit No. 3650-3 and Water Right No. 2843-3 have been incorporated into this Water License No. 5169-3.





WILLIAM L. MOE

Irrigation Project #1
Bruce South Dak

Acres Irrigated - 307

Water Claimed 4.0 cfs

Point of Diversion - 1870' N 44° E of SW corner of
Sec 19 - 112-51

Well #2 - 1870' N 136° E of NW corner
of Sec 19 - 112-51

Surveyor's Certificate
I, John L. Wierama, do hereby certify that
this map identifies a reasonably
accurate record of the land of:

William L. Moe
Bruce
Brookings County
South Dakota
7-12-76
PE #1916
Brookings SD
John L. Wierama

MAP NO 2179-3 (APPL NO 2843-3)

W⁸ Sec 19
-51
9 Acres

W⁸ Sec 10
-51
9 Acres

W⁸ of Sec 19
-51
9 Acres

SW⁴ Sec 19
112-51
34 A

WILLIAM L MOE

Irrigation Project #1
Bruce South Dak

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Water Claimed 4.0 cfs

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Surveyor's Certificate

I, John L. Wiersma, do hereby certify that
this map identifies a reasonably
accurate record of the land of:

William L. Moe

Bruce

Brookings County

Drawing by J.W.

John L. Wiersma

South Dakota

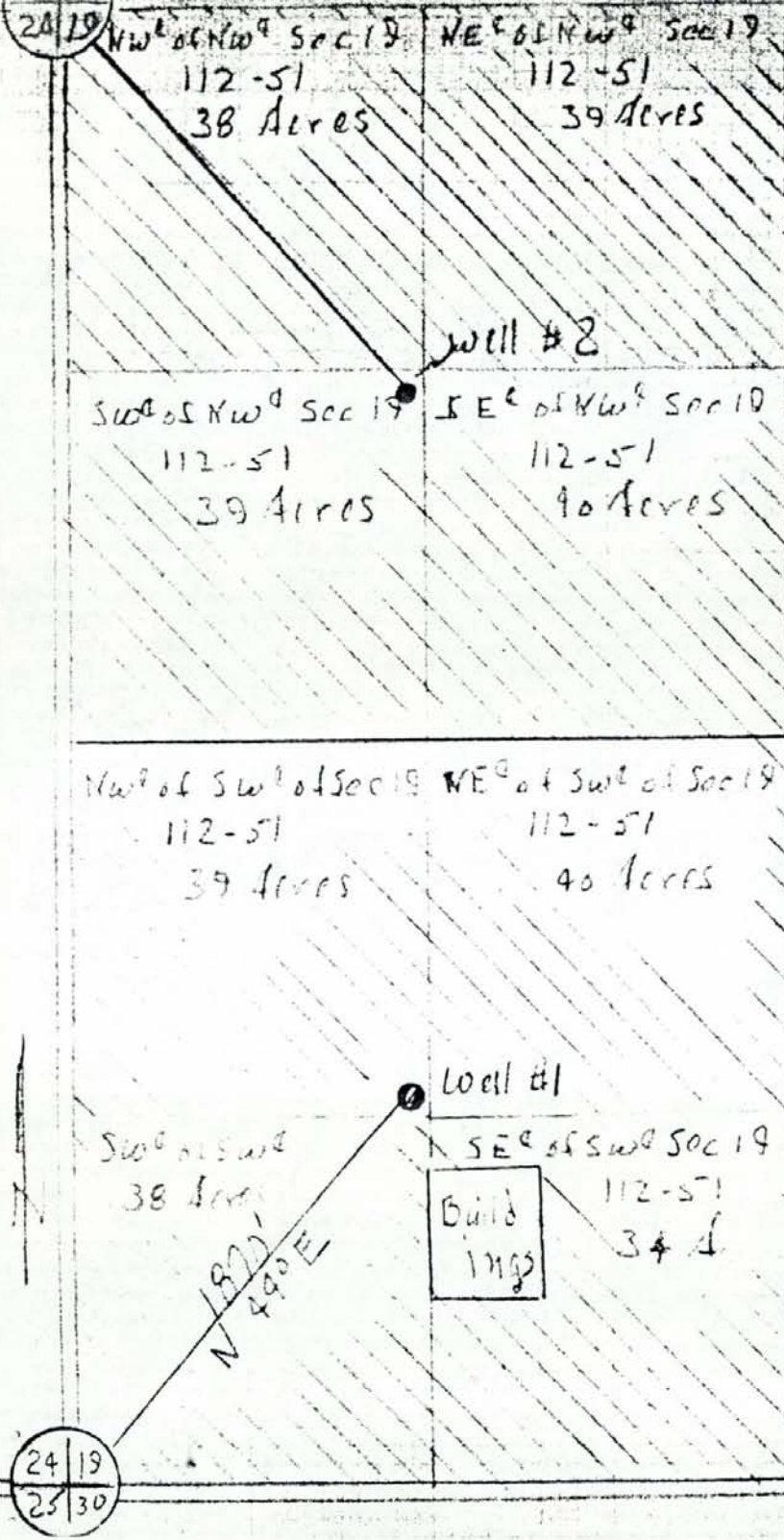
7-12-76

PE #1916

Brookings SD

Scale 1" = 660'

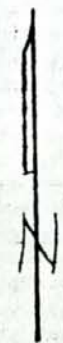
~~Map No. 2119-3~~ (APPL No 2843-3)



WILLIAM L. MOE

Irrigation Project
Bruce South C

Acres Irrigated - 307
 Water Claimed 4.0 cfs
 Point of Diversion - 1870' N 44° E of
 Sec 19 -
 Well #2 - 1870' N
 of Sect



Scale 1" = 660'

Surveyor's Certificate
 I, John L. Wiersma, do hereby
 this map identifies an
 accurate record of the land
 William L. Moe
 Bruce
 Brookings County
 Drawn by SW
 John L. Wiersma
 MAP No.