

2132-3

1. Considered MAY 20, 1976
2. Name of Applicant ROBERT A. KOHL
3. Post Office Address BROOKINGS
4. Amount of water claimed 1.7
5. Source of water supply 20' WELL
6. Water to be used for IRRIGATION
- Acres to be irrigated 124
7. Water to be diverted and used in BROOKINGS county  
about 6S, 1E miles of BROOKINGS
8. Proof of Publication Received 5-19-76  
Not Received \_\_\_\_\_  
Approved \_\_\_\_\_  
Subject to \_\_\_\_\_  
Not Approved \_\_\_\_\_  
Action deferred \_\_\_\_\_
9. Application
10. Remarks:

No. 2732-3Map No. 2091-3 Water Division No. 3 BIG SIOUX RIVER

(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 Robert A. Kohl  
 Postoffice address 812 S. 11th Ave Brookings State South Dakota 57006  
 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 Robert A Kohl Irrigation Project et al  
 4. Amount of water claimed (cubic feet per second) 1.7  
 5. Source of water supply well  
 6. Location of point of diversion 1910' N 37° E of SW corner Sec 19-109-48

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 124

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 Sec 19-109-48 | 34             |                  |                |
| NE 1/4 " " " "       | 35             |                  |                |
| SW 1/4 " " " "       | 23             |                  |                |
| SE 1/4 " " " "       | 32             |                  |                |

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 Brookings Register  
 12. Principal Features of the Proposed Water Supply System:  
 A. Works proposed to divert water from its natural source well with electrically driven centrifugal pump  
 B. Works proposed to transport water to place of use. closed conduit  
 C. Works proposed to apply water to beneficial use. Tow lines and Hand move

Estimated Total Cost \$ 12,000

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 BrookingsI, Robert A. Kohl

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 Robert A. KohlSubscribed and sworn to before me this 27 day of April, 1976

Notary Public (or other qualified officer)

P. E. #1916

WATER RIGHT APPLICATION APPROVAL

The Water Rights Commission hereby approves Water Right Application No. 2732-3

ROBERT A. KOHL  
(Applicant)

812 6TH AVE BROOKINGS  
(Post Office Address)

SOUTH DAKOTA 57006  
(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 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 APRIL 30, 1976

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

Date of receipt of corrected application MAY 3, 1976

Approved MAY 20, 1976, Recorded in Book 4015 Page 170

WATER RIGHT PERMIT NO. 2732-3

The Water Rights Commission hereby grants and issues this Water Right Permit No. 2732-3 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 APRIL 30, 1976
2. The equivalent of at least one-fifth of the work above specified is to be completed on or before NOVEMBER 20, 1978
3. The whole of said work is to be completed on or before MAY 20, 1981
4. The limit of time from proof of beneficial use of water appropriated in accordance herewith is MAY 20, 1984
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 1.7 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 20, 1984; said water to be used during the following described annual period: APRIL THRU OCTOBER

Witness my hand this 9TH day of JUNE, 1976

WATER RIGHTS COMMISSION

By:

John H. Huth  
Chief Engineer, Executive Officer

Certificate of Construction Issued —, 19—

Water License Issued —, 19—

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 0.85 meters, Depth 6 meters
- (2) Casing Type Concrete Diameter 0.80 meters Thickness 50 mm  
(wood, concrete, steel, etc)
- (3) Perforated Screen.  
Type Steel-vent slot, Diameter 0.4 meter, Length 3 meters
- (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.

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

Character of Water bearing materials 0 to 1 meter - top soil;  
1 meter to 6 meters is gravel; over  
6 meters is clay.

Depth to top of water bearing material 1 meter

Depth to bottom of water bearing material 6 meters

Thickness of water bearing material 5 meters

Depth to water (ground surface to water level) 1 meter

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

On same owner's property 75 rds. On property owned by others 110 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.

Robert A. Kohl  
Signature of Applicant

2732-3

SOUTH DAKOTA STATE UNIVERSITY  
BROOKINGS, SOUTH DAKOTA 57000

WATER RESOURCES RESEARCH INSTITUTE

April 30, 1976

Mr. Robert A. Kohl  
812 6th Ave.  
Brookings, SD 57006

Dear Rob:

Enclosed herewith please find the original copy of the report of analysis on water sample #76-432 received here for analysis April 26. Also I am enclosing 1 copy of AES publication #13 with the approximate quality of this water for irrigation uses designated by the red cross in the chart on the outside back cover.

As you will note, it is in the medium salinity, low sodium category and thus presents no chemical hazards whatever to the soils on which it might be used for irrigation, provided good internal drainage is available. I would suggest that the Solomon clay be omitted from your plans to irrigate at the beginning, at least. The other soils should be fairly well-suited to irrigation and respond favorably.

A copy of this letter and of the water analysis, plus the WI-1 form are being sent to the State Conservation Commission for their action.

Sincerely yours,

*L. O. Fine /cb*

L. O. Fine  
Water Quality Lab

LOF:ckb

Enclosures

cc: State Conservation Commission

D. Pahl

Don Boone, County Extension Agent



CONSERVATION  
COMMISSION  
FORM W1 #1

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 Robert A. Kohl  
ADDRESS 812 6th  
COUNTY Brookings, SD 57006

LEGAL DESCRIPTION

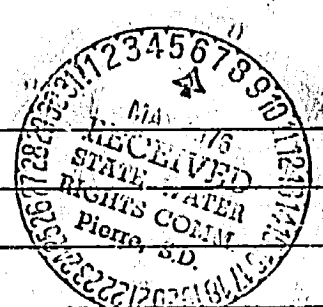
1. WELL LOCATION NW 1/4 SW 1/4 Section 19, T109N, R49W  
2. LOCATION OF AREA TO BE IRRIGATED SW 1/4 Sect. 19, T109N, R49W

TYPE OF IRRIGATION

3. GRAVITY " TOWLINE X CENTER PIVOT " GUN "  
4. CROPS TO BE IRRIGATED Alfalfa, grain, pasture

WATER QUALITY

5. SAMPLE NUMBER 76-432  
6. SALINITY (EC X 10<sup>6</sup>) 4.54 (medium)  
7. SODIUM (SAR) 0.15 (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 Brookings Conservation District, County Extension office or Soil Conservation Service. J and: that the legal description for the location of the well and land to be irrigated is true and correct.

Robert A. Kohl  
APPLICANT'S SIGNATURE

SUBSCRIBED AND SWORN BEFORE ME THIS  
16 DAY OF April 19 76.

John L. Wiersma  
(TITLE OR SEAL)

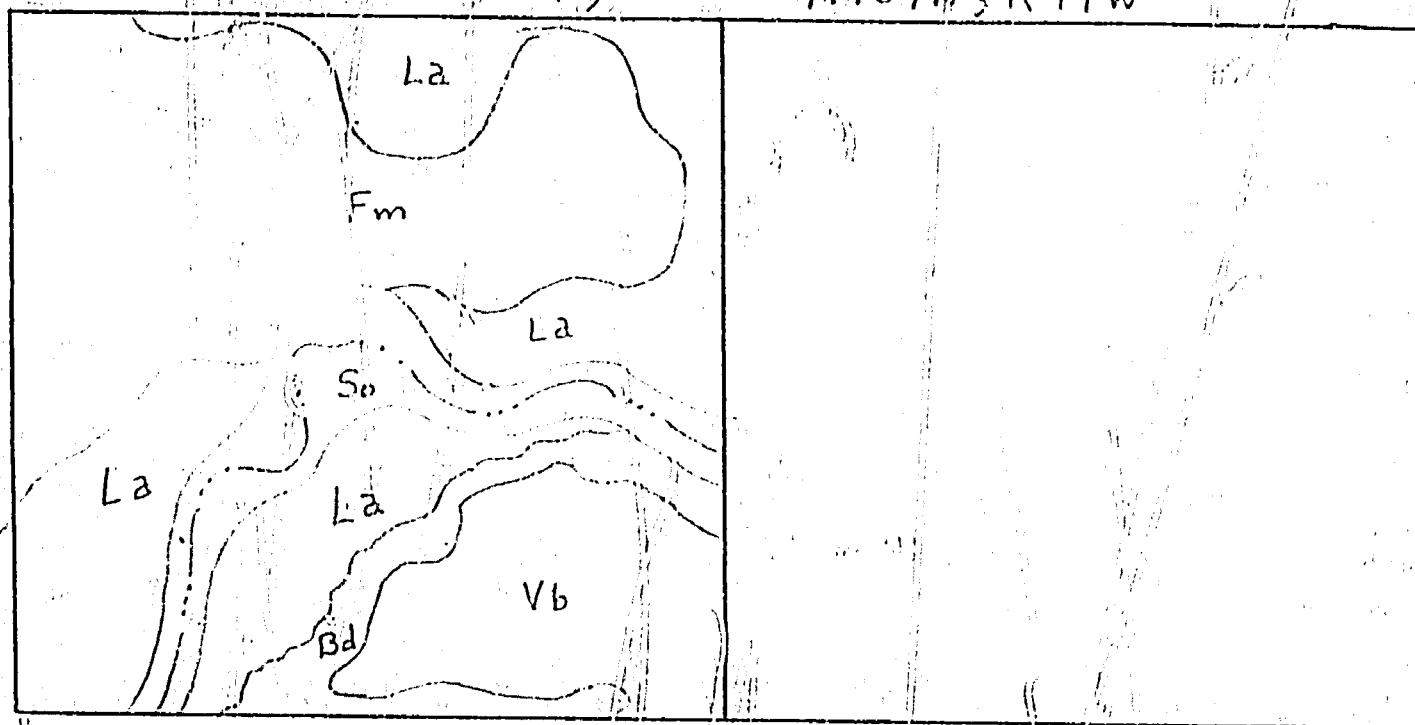
Alfred J. Hoffel  
APPROVED/DISAPPROVED

(SOILS INFORMATION ON REVERSE SIDE)

SW 1/4 Section 19,

MAP

T. 109N, R. 49W



#### NARRATIVE

- Fm Fordville loam, Nearly level - 0-2% slopes  
Medium textured alluvium over gravel at about 32 inches - well drained
- La Lamoure silty clay loam, nearly level - 0-2% slopes  
Somewhat poorly drained. fine to medium texture alluvium, 42 inches to gravel.
- So Solomon clay, nearly level 0-2% slopes  
Poorly drained fine textured alluvium over gravel at 2 to 4 feet.
- Vb Vienna loam, gently sloping 3-4% slopes  
Well drained medium textured glacial drift soil
- Bd Buse complex, rolling 7-18% slopes  
Thin excessively drained medium textured glacial till.

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

Submitted by: Robert A. Kohl  
 Address: 812 6 AV.  
Brookings, SD 57006

Date Rec'd: April 26, 1976  
 Sample No. 76-432  
 Identification Well-  
SW1, Sec. 19, T 109N, R 49W

**WATER ANALYSIS**

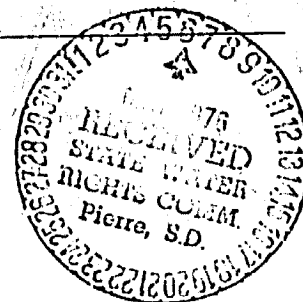
|                                       |      |                             |      |           |
|---------------------------------------|------|-----------------------------|------|-----------|
| Calcium (Ca)                          | 80   | ppm*                        | 4.00 | me/l**    |
| Magnesium (Mg)                        | 15   | ppm                         | 1.23 | me/l      |
| Sodium (Na)                           | 6    | ppm                         | 0.25 | me/l      |
| Potassium (K)                         | 3    | ppm                         | 0.08 | me/l      |
| Sulfate (SO <sub>4</sub> )            | 52   | ppm                         | 1.08 | me/l      |
| Nitrate (as N)                        |      | ppm                         |      | me/l      |
| Chloride (Cl)                         | 6    | ppm                         | 0.15 | me/l      |
| Bicarbonate (HCO <sub>3</sub> )       | 244  | ppm                         | 4.00 | me/l      |
| Carbonate (CO <sub>3</sub> )          |      | ppm                         |      | me/l      |
| Iron (Fe)                             |      | ppm                         |      | me/l      |
| Fluoride (F)                          |      | ppm                         |      | me/l      |
| Hardness (EDTA as CaCO <sub>3</sub> ) |      | ppm                         |      | g.p.g.*** |
| Alkalinity (Methyl Orange)            | 200  | ppm (as CaCO <sub>3</sub> ) |      |           |
| Alkalinity (Phenolphthalein)          | 0    | ppm (as CaCO <sub>3</sub> ) |      |           |
| Electrical Conductivity               | 454  | micromhos per cm at 25° C.  |      |           |
| Sodium Adsorption Ratio               | 0.15 |                             |      |           |
| Sodium                                | 4.49 | % of cations                |      |           |
| Residual sodium carbonate             | 0.00 | me/l                        |      |           |
| pH                                    | 7.40 |                             |      |           |
| Others:                               |      |                             |      |           |

\*ppm=parts per million

\*\*me/l=millequivalents per liter

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

COMMENTS: Total cations 5.56 me/l  
 Total anions 5.23 me/l



By: Shirley Litten

| Service Performed   | Amount Due |
|---------------------|------------|
| Irrigation analysis | \$8.00     |

Make checks payable to: Water Quality Laboratory

Cut along dotted line and return the lower portion with payment

Sample No. 76-432

Amount Enclosed \$.....

Signed.....

2732-3

Publish first publication, on or before May 10, 1976

NOTICE  
INTENT TO APPROPRIATE WATER

Pierre, South Dakota 57501

May 3, 1976

Notice is hereby given that Robert A. Kohl  
whose post office address is Brookings, 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  
1.7 cubic feet of water per second of time from the ground water through the  
\_\_\_\_\_, the point of diversion of which is to be located in the \_\_\_\_\_

NW 1/4 SW 1/4

of Section 19, Twp. 109N, Range 49W. Said water to be used for the purpose

of providing irrigation on the following described land:

SW 1/4, Section 19, T109N, R49W

This application No. 2732-3 will be considered by the Water Rights Commission at their office at  
Pierre upon the 20th day of May, 1976, at 1:00 P.M. All interested  
persons may appear and be heard.

WATER RIGHTS COMMISSION

By:

BURTON F. JONES  
Water Rights Specialist

BFJ/bw  
cc:

Robert A. Kohl, 812 8th Ave., Brookings, S.d. 57006

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA )  
County Brookings ) ss.

I, Dennis D. Koenders hereby  
certify that the annexed printed copy of Notice of Intent to Appropriate  
Water was taken from the Brookings Daily Register

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 Brookings of Brookings

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

May 10, 1976

May 17, 1976

*Dennis D. Koenders*  
(Signature)

Advertising Manager  
(Title)

5-17-76  
(Date Signed)

Legal No. 237 - May 10 & 17  
NOTICE  
INTENT TO APPROPRIATE WATER  
Pierre, South Dakota 57501  
May 3, 1976  
Notice is hereby given that Robert A. Kohl whose post office address is Brookings, 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 1.7 cubic feet of water per second of time from ground water through the point of diversion of which is to be located in the NW 1/4 SW 1/4 of Section 19, Twp. 109N, Range 49W. Said water to be used for the purpose of providing irrigation on portions of the following described land: SW 1/4 Section 19, T109N, R49W, S49E, SD 57501. This application No. 2732-3 will be considered by the Water Rights Commission at their office at Pierre upon the 20th day of May, 1976 at 1:00 P.M. All interested persons may appear and be heard. WATER RIGHTS COMMISSION By: BIRTON F. JONES Water Rights Specialist



 **Department of  
Water & Natural Resources**

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

May 26, 1988

Robert A. Kohl  
RR 1, Box 68A  
Brookings, SD 57003

Dear Mr. Kohl:

I am writing in regard of our review of irrigation questionnaire records. No irrigation has been reported for the last five irrigation seasons under Permit No(s). 2732-3.

South Dakota Codified Laws state that when any person fails to use water for the purpose for which it was appropriated for a period of three years, or abandons the use of the water, such unused water shall revert to the public. An exception to the law is when there is legal excuse for nonuse of water. Examples of legal excuse for nonuse of water are when water is not available or legal proceedings which prevent the use of water.

Since your permit(s) has (have) not been used for five years, the permit(s) may be subject to cancellation by the Water Management Board unless there is a legal reason for not using water. Please advise by June 17, 1988 if you still want to keep your water right and if there is a reason why water has not been used. Let us know, if you have any questions.

Very truly yours,



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



LICENSE FOR PERMIT NUMBER 2737-3

1. Legal location of wells: \_\_\_\_\_

dams & structures: \_\_\_\_\_

2. Well Information: Well Drilling Firm \_\_\_\_\_

No. of wells \_\_\_\_\_ Depth \_\_\_\_\_

Casing a) diameter \_\_\_\_\_ Screen a) \_\_\_\_\_

b) length \_\_\_\_\_ b) length \_\_\_\_\_

c) type \_\_\_\_\_ Static Water Level \_\_\_\_\_

Pump a) make \_\_\_\_\_ Motor a) make \_\_\_\_\_

b) model \_\_\_\_\_ b) model no. \_\_\_\_\_

c) size \_\_\_\_\_ c) horsepower rating \_\_\_\_\_

d) capacity \_\_\_\_\_ GPM d) motor efficiency rating \_\_\_\_\_

e) turbine pump  
no. of stages \_\_\_\_\_

3. Distribution lines:

a) size of lines \_\_\_\_\_

b) type \_\_\_\_\_

c) length \_\_\_\_\_

4. Dam information:

a) height to crest \_\_\_\_\_

b) height to spillway \_\_\_\_\_

c) crest width \_\_\_\_\_

d) crest length \_\_\_\_\_

e) spillway length \_\_\_\_\_

f) spillway width \_\_\_\_\_

g) approx. storage \_\_\_\_\_

h) Distribution lines or canals:

1) size \_\_\_\_\_

2) type \_\_\_\_\_

3) length \_\_\_\_\_

5. System Type: a) sideroll:

1) length \_\_\_\_\_ feet

2) diameter of pipe \_\_\_\_\_

3) make, model & number of sprinklers \_\_\_\_\_

4) spacing of sprinklers \_\_\_\_\_

5) nozzle size \_\_\_\_\_

i) Outlet tubes:

1) diameter \_\_\_\_\_

2) type \_\_\_\_\_

3) valued (Y/N) \_\_\_\_\_

4) valve type \_\_\_\_\_

5) location on structure \_\_\_\_\_

b) towline:

1) length \_\_\_\_\_ feet

2) make, model & number of sprinklers \_\_\_\_\_

3) spacing of sprinklers \_\_\_\_\_

4) nozzle size \_\_\_\_\_

5. System Type: c) center pivot

- 1) make \_\_\_\_\_
- 2) number of towers \_\_\_\_\_
- 3) distance between towers \_\_\_\_\_
- 4) overall length \_\_\_\_\_
- 5) End gun (Y/N) \_\_\_\_\_
- 6) high or low pressure \_\_\_\_\_
- 7) make & size of nozzles \_\_\_\_\_
- 8) PSI reading while system is running \_\_\_\_\_
- 9) GPM \_\_\_\_\_

g) Gun

- 1) make \_\_\_\_\_
- 2) serial number \_\_\_\_\_
- 3) nozzle size \_\_\_\_\_
- 4) capacity (GPM) \_\_\_\_\_
- 5) PSI \_\_\_\_\_
- 6) hose size \_\_\_\_\_
- 7) hose length \_\_\_\_\_

d) Gate Pipe

- 1) length \_\_\_\_\_
- 2) diameter \_\_\_\_\_
- 3) spacing of gates \_\_\_\_\_

e) Siphons

- 1) number \_\_\_\_\_
- 2) size \_\_\_\_\_

f) Portable boom

- 1) make \_\_\_\_\_
- 2) serial number \_\_\_\_\_
- 3) nozzle size \_\_\_\_\_
- 4) capacity (GPM) \_\_\_\_\_
- 5) PSI \_\_\_\_\_

h) Hydromatic

- 1) make \_\_\_\_\_
- 2) model \_\_\_\_\_
- 3) serial number \_\_\_\_\_
- 4) length \_\_\_\_\_
- 5) nozzle size \_\_\_\_\_
- 6) spacing \_\_\_\_\_
- 7) PSI \_\_\_\_\_
- 8) capacity (GPM) \_\_\_\_\_

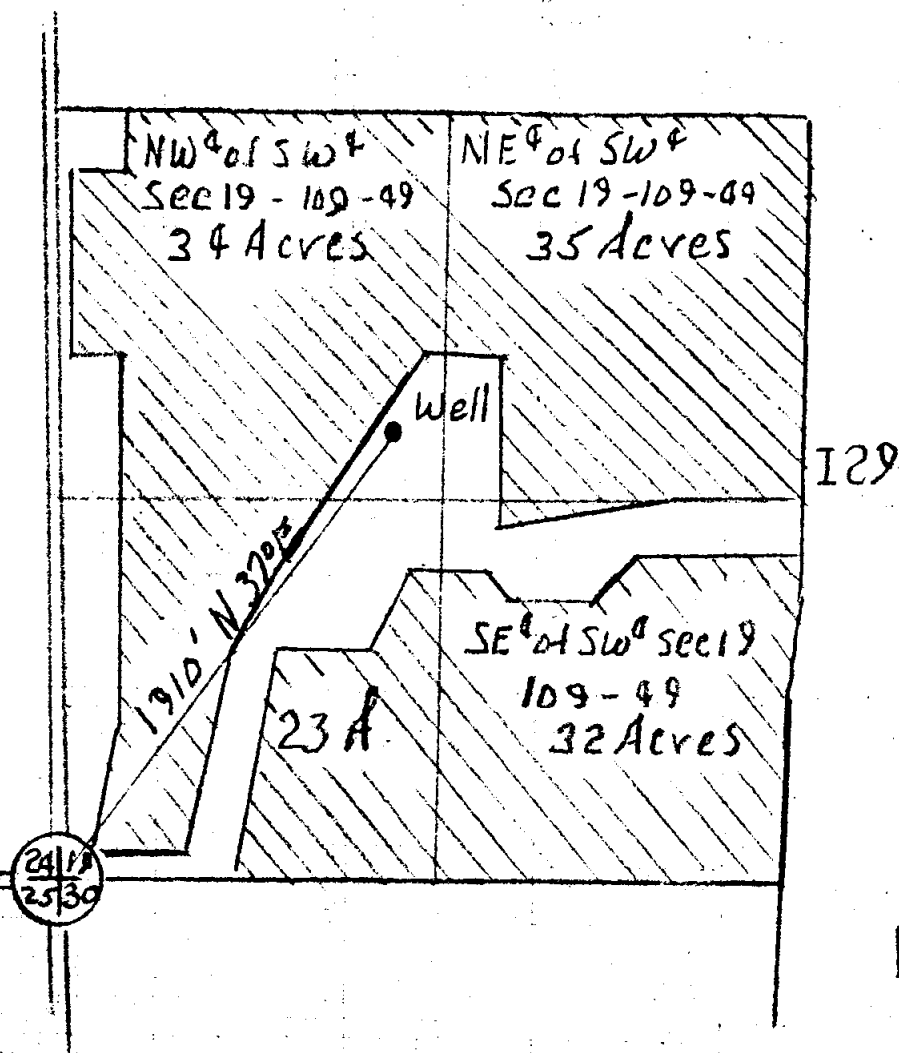
YES

NO

Check Items

1. Soil and water permit lands agree with lands being irrigated and lands listed on permit.
2. Special Qualifications to permit being abided by.
3. All Structures, wells and lands on map.

REMARKS:



Scale 8" = 1 Mile

# ROBERT A. KOHL

Irrigation Project # 1

Brookings County

812 Sixth Ave. Brookings S. Dak

Water Claimed 1.7 cfs  
Acres Irrigated - 124

Point of Diversion - 1910' N 37° E of  
SW corner Sec 19 - 109 - 49

Surveyor's Certificate

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

Robert A. Kohl

812 6th Ave. S 57006 Brookings S. Dak

4-27-58

Drawn by J. L. W.

P.E. # 1916

John L. Wiersma (APPL. 2732-3)