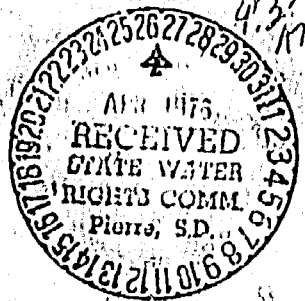


2716-3

1. Considered MAY 20 1976
2. Name of Applicant BENSON HEREFORD FARM
3. Post Office Address CLARK
4. Amount of water claimed 4.4
5. Source of water supply 2-57' WELLS
6. Water to be used for IRRIGATION
Acres to be irrigated 312
7. Water to be diverted and used in CLARK county
about 4N miles CLARK
8. Proof of Publication
Received 5-13-76
Not received _____
9. Application
Approved _____
Subject to _____
Not approved _____
Action deferred _____
10. Remarks:

No. 2716-3Map No. 2077-3 Water Division No. 3 JAMES RIVER District _____
(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 Benson Hereford Farm - Mary, James, & Robert Benson owners
 Postoffice address Clark 57225, 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 Benson Hereford Farm Irrigation Project #1
4. Amount of water claimed (cubic feet per second) 4.4
5. Source of water supply 2 wells
6. Location of point of diversion Well #1 - 3700' N 53° W of SE corner Sec 13 - 117-58
Well #2 - 3130' N 51° W of SE corner Sec 13 - 117-58
 County Clark
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 372

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 13 - 117-58	39	NW 1/4 Sec 13 - 117-58	40
NE 1/4	40	NE 1/4	39
SW 1/4	38	SW 1/4	39
SE 1/4	39	SE 1/4	38

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 Centertown Public Opinion
12. Principal Features of the Proposed Water Supply System.
- A. Works proposed to divert water from its natural source. 2 wells with electrically driven deep well turbines
- 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 \$ 58,000

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

STATE OF SOUTH DAKOTA

County of BrockmeyerI, James Benson, 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 James BensonSubscribed and sworn to before me this 20 day of April, 1976John L. Czerwinski
Notary Public (or other qualified officer)

P.E.H. 1976

WATER RIGHT APPLICATION APPROVAL

The Water Rights Commission hereby approves Water Right Application No. 2716-3
BENSON HEREFORD FARM CLARK
 (Applicant) (Post Office Address)
SOUTH DAKOTA 57225 With the following modifications:
 (State)

The irrigation well approved under this Permit is located near domestic 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.

Date of first receipt of application APRIL 26, 1976
 Date of return to applicant for correction, amendments or changes required _____
 Date of receipt of corrected application APRIL 30, 1976
 Approved MAY 20, 1976, Recorded in Book 15 Page 160

WATER RIGHT PERMIT NO. 2716-3

The Water Rights Commission hereby grants and issues this Water Right Permit No. 2716-3 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 26, 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 4.4 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 Hatch
 Chief Engineer, Executive Officer

Certificate of Construction Issued _____, 19____

Water License Issued _____, 19____

2 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 57'
(2) Casing Type Steel Diameter 16" Thickness 1/4"
(wood, concrete, steel, etc)
(3) Perforated Screen.
Type S/S + Diameter 16" Length 15'
(4) Gravel Pack. Thickness 7" 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 30' clay & silt
30' to 57' water bearing sand & gravel
Over 57' is clay

Depth to top of water bearing material 30'
Depth to bottom of water bearing material 57'
Thickness of water bearing material 27'
Depth to water (ground surface to water level) 30'

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

On same owner's property No Supply rds. On property owned by others 160 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.

James A. Benson
Signature of Applicant

2716-3

April 28, 1976

Max, James, and Robert Benson
Clark, SD 57225

Dear Sirs:

Enclosed please find the original copy of the report of analysis of water sample #76-377 submitted here by you about a week ago. Also enclosed you will find a copy of AES publication #13 with the quality of this water approximately charted by means of a red cross on the outside back cover. You will see that it is in the low sodium, high salinity classification.

This means that the water carries a very small amount of sodium compared to other cations, but is moderately high in total salts of all kinds. Thus, it has a moderate hazard for increasing the salt of soils on which it is used. It should be used as frequently as possible and in fairly large amounts so as to completely refill the root zone whenever you irrigate. Please observe these and read the precautions in the AES publication #13.

A copy of this letter, and the application materials, including the water analysis are being sent 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

George Schanck, 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 Max ~~James~~ James Robert Benson
ADDRESS Clark, S. Dak. 57225
COUNTY Clark, S. Dak.

LEGAL DESCRIPTION

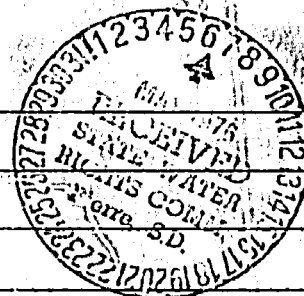
1. WELL LOCATION _____
2. LOCATION OF AREA TO BE IRRIGATED South Half of Section 13 T. 117N Range 58W
Clark Co.

TYPE OF IRRIGATION

3. GRAVITY _____ TOWLINE _____ CENTER PIVOT x _____ GUN _____
4. CROPS TO BE IRRIGATED Corn-Alfalfa-Small Grain

WATER QUALITY

5. SAMPLE NUMBER 76-377
6. SALINITY (EC x 10⁶) 1147 (high)
7. SODIUM (SAR) 0.39 (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 Clark County 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.

James A. Benson
APPLICANT'S SIGNATURE

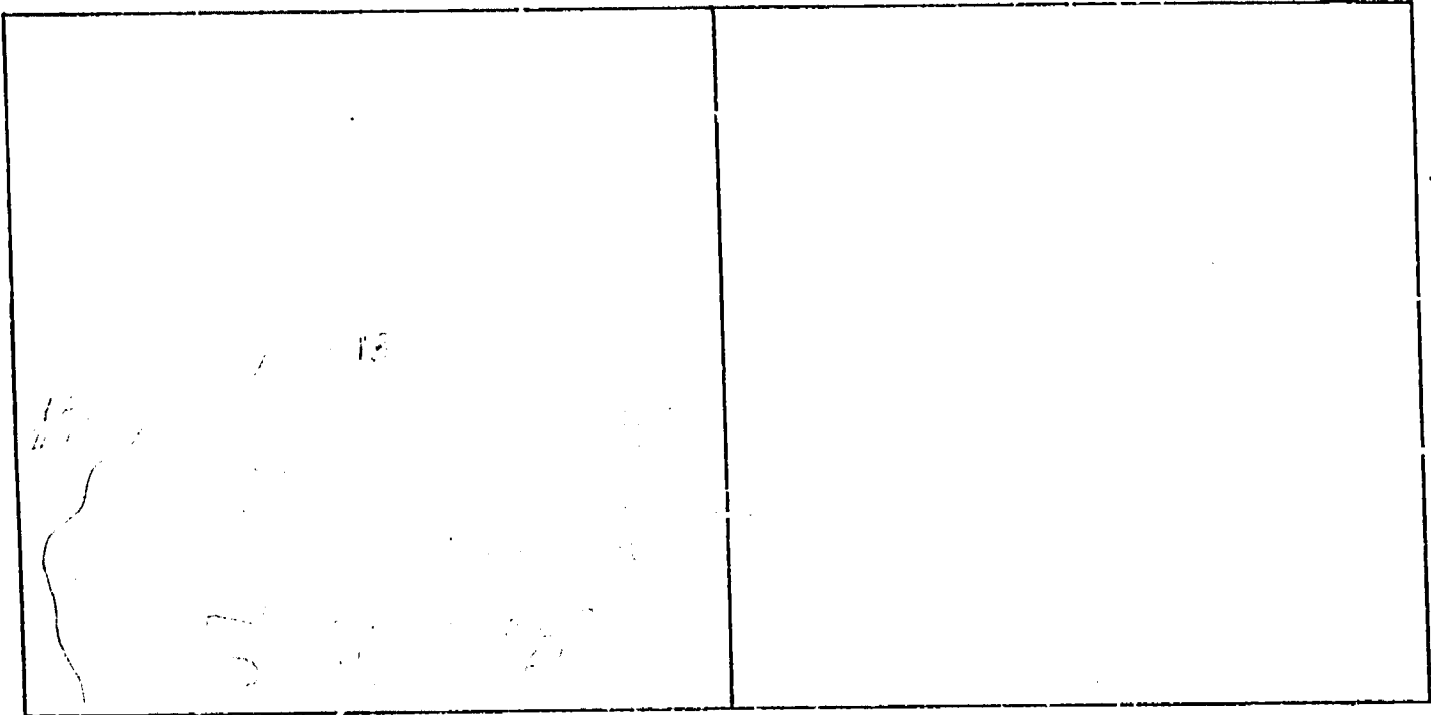
SUBSCRIBED AND SWORN BEFORE ME THIS
17 DAY OF APRIL 19 76

F. R. Moulton
(TITLE OR SEAL) ALY COMMISSIONER
F. R. Moulton APRIL 1976

Albert J. D. [Signature]
APPROVED/DENIED

(SOILS INFORMATION ON REVERSE SIDE)

MAP



NARRATIVE

15 M
3-1 } Fordville like loam 0 to 3% slopes. Deep and moderately deep, moderately sandy soils underlain by sand and gravel from 30 to 40 inches.
3S57Z
3-1

2s5T
6-1 } Epeland sandy loam 6 % slopes Deep, and moderately deep, moderately sandy soils Well drained having sandy loam and fine sandy loam textures throughout. underlain by loamy sands and sand

2S53-2 Hamar Sandy loam 0-2% slopes Deep and moderately deep, ~~xxxxxxxxxxxx~~ poorly drained soils on better lands and in depressions. an intermittent water table, occasional flooding, or salinity severely limits use.
1K-1

1K-1 } Norman loam 2-4% slopes Deep, Well drained loamy soils having moderately ~~xxxxxxxxxxxx~~ slow to slowly permeable clay loam ~~xxxx~~ underlain by clay loam or loam till

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

Submitted by: Clark, James & Robert Benson Date Rec'd: April 11, 1976
 Address: Clark, SD 57225 Sample No.: 76-377
 Identification: 611-55*
Box 1, Sec. 13, T. 117N, R. 58E

WATER ANALYSIS

Calcium (Ca)	180	ppm*	9.00	me/l**
Magnesium (Mg)	60	ppm	4.92	me/l
Sodium (Na)	24	ppm	1.04	me/l
Potassium (K)	12	ppm	0.51	me/l
Sulfate (SO ₄)	307	ppm	6.39	me/l
Nitrate (as N)		ppm		me/l
Chloride (Cl)	5	ppm	0.14	me/l
Bicarbonate (HCO ₃)	459	ppm	7.20	me/l
Carbonate (CO ₃)		ppm		me/l
Iron (Fe)		ppm		me/l
Fluoride (F)		ppm		me/l
Hardness (EDTA as CaCO ₃)		ppm		g-p-g.***
Alkalinity (Methyl Orange)	360	ppm (as CaCO ₃)		
Alkalinity (Thymolphthalein)	0	ppm (as CaCO ₃)		
Electrical Conductivity	1147	micromhos per cm at 25° C.		
Sodium Adsorption Ratio	0.39			
Sodium	6.81	% of cations		
Residual sodium carbonate	0.00	me/l		
pH	7.30			
Others:				

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

COMMENTS: Total cations 15.27 me/l
 Total anions 15.73 me/l



By: Shirley Litten

Service Performed	Amount Due
Investigation and analysis	\$8.00 PAID

Make checks payable to: Water Quality Laboratory

Cut along dotted line and return the lower portion with payment

Sample No. 76-377

Amount Enclosed \$

Signed

Form 6 - Notice of Intent to Appropriate Water

No. 2716-3

Publish first publication, on or before May 6, 1976

NOTICE
INTENT TO APPROPRIATE WATER

Pierre, South Dakota 57501

April 30, 1976

Notice is hereby given that Benson Hereford Farm

whose post office address is Clark, 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

4.4 cubic feet of water per second of time from the ground water through the

Benson Hereford Farms #1, the point of diversion of which is or is to be located in the _____

NE 1/4 SW 1/4 and NW 1/4 SE 1/4

of Section 13, Twp. 117N, Range 58W. Said water to be used for the purpose

of providing irrigation on ^{portions of} the following described land:

S 1/2, Section 13, T117N, R58W

This application No. 2716-3 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:

Benson Hereford Farm, Clark, S.D. 57225

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

No. 2716-3

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County Codington) ss.

I, John H. Lowrie hereby
certify that the annexed printed copy of Notice of Intent to Appropriate
Water was taken from the Watertown Public Opinion

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 Watertown

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

May 4th, 1976

May 11th, 1976

General Manager

(Title)

May 11th, 1976

(Date Signed)

PUBLIC NOTICE

No. 2716-3

NOTICE INTENT TO
APPROPRIATE WATER

Pierre, South Dakota 57501
April 30, 1976

Notice is hereby given that Benson
Hereford Farm whose post office
address is Clark, South Dakota, has
made an application in accordance
with the provisions of the water laws
of South Dakota, has made an ap-
plication in accordance with the
provisions of the water laws of South
Dakota for a permit to appropriate
for beneficial use 4.4 cubic feet of
water per second of time from
ground water through the Benson
Hereford Farm No. 1, the points of
diversion of which are to be located
in the NE 1/4 SW 1/4 and NW 1/4 SE 1/4 of
Section 13, Twp. 117N, Range 58W.
Said water to be used for the purpose
of providing irrigation on portions of
the following described land: S 1/2,
Section 13, T117N, R58W.

This application No. 2716-3 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
(May 4, 11, 1976)

$3\frac{1}{2} @ 8.25 \times 2 = \15.76



BENSON HEREFORD FARM

Max, James, Robert,
Benson
Owners

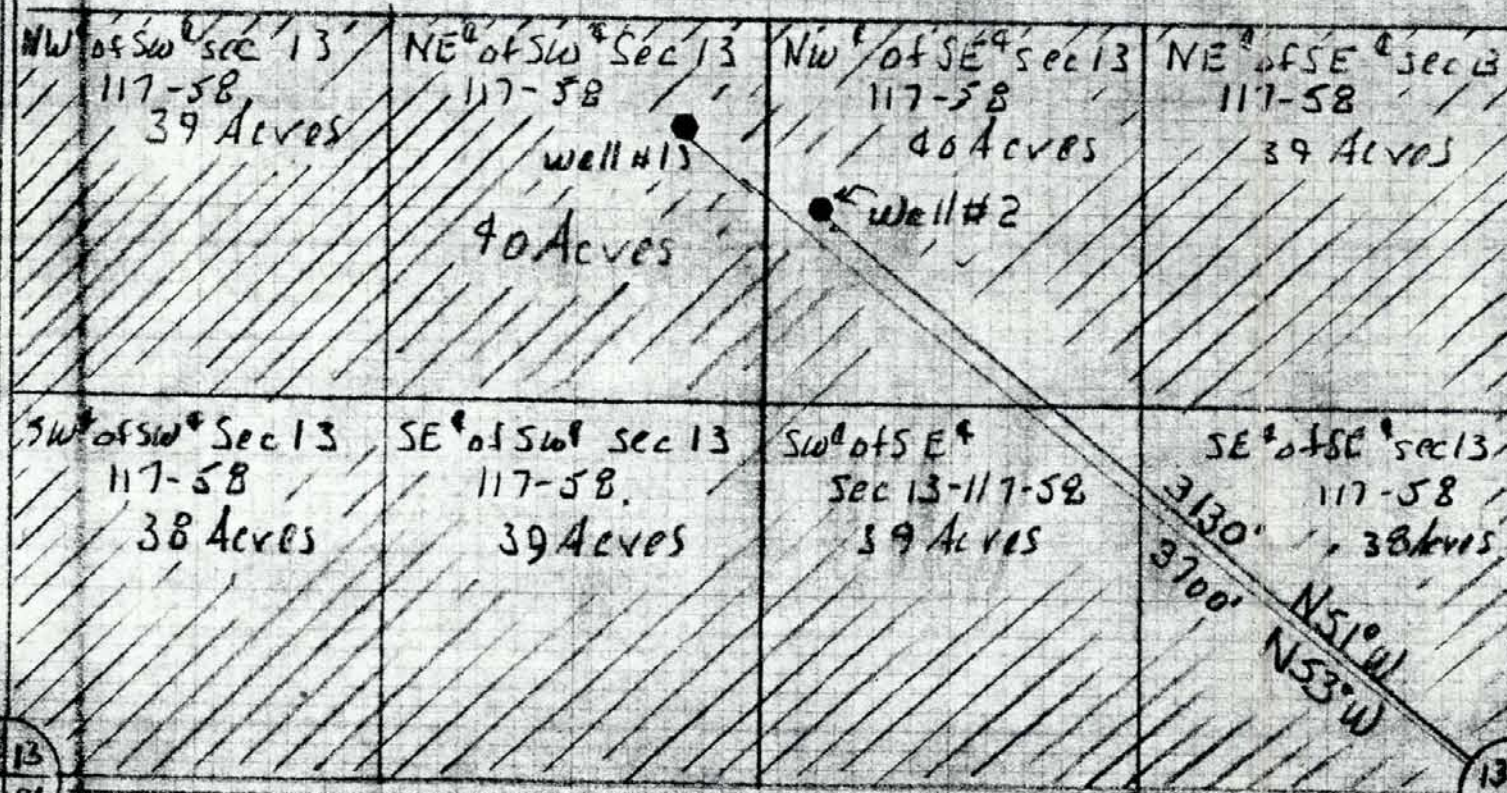
Irrigation Project #1
Clark S. Dak

Acres Irrigated - 312
Water claimed 4.4 cfs

Points of Diversion:

Well #1 - 3700' N53°W of SE corner sec 13-117-58

Well #2 - 3130' N51°W of SE corner Sec 13-117-58



Scale 8" = 1 Mile

Surveyor's Certificate

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

Benson Hereford Farm
Max, James, & Robert Benson
Clark 57225 S. Dakota

Clark County

Drawn by J.L.W.

John L. Wiersma

4-20-76

DE #1916

Brinkings S.D.

Map No 2077-3 App. No 2716-3