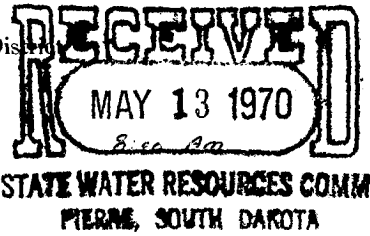


1. Considered July 22, 19 70
2. Name of Applicant Town of Harrisburg
3. Post Office Address Harrisburg, South Dakota
4. Amount of water claimed 2.0
5. Source of water supply ground water well
6. Water to be used for Municipal
- Acres to be irrigated none
7. Water to be diverted and used in Lincoln County
about 7 Miles EAST of HARRISBURG
8. Proof of Publication Received ~~1/2~~ 7-20-70
Not received _____
9. Application Approved _____
Subject to _____
Not approved _____
Action deferred _____
10. Remarks:

No. 1754-3

Map No. 1278-3 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 Town of Harrisburg, South Dakota
Postoffice address Harrisburg, State South Dakota 57032
If a corporation show date and place of incorporation _____
2. Method of accomplishing work (contract, employment of others, or by direct labor) Contract
3. Name of diversion work Well (Municipal)
4. Amount of water claimed (cubic feet per second) 2.0
5. Source of water supply Well
6. Location of point of diversion NW 1/4 of NE 1/4, Sec. 1, T99N, R49W
Lincoln County, South Dakota 600' E & 400' S OF THE
N 1/4 CORNER, SECTION 1, T99N, R49W County Lincoln
7. Annual period or periods during which water is to be used January 1 through January 1, each year
8. Use to be made of water, (irrigation, industrial, municipal, commercial, recreation, etc.) Municipal
9. For irrigation use, _____ Total number of acres to be irrigated _____

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.

Attach sheet if more space is needed

10. Time required to complete construction of water supply system 1 years. Additional time required to complete application of water to the proposed beneficial use 1 years.
11. Choice of newspaper for Notice of Intent to Appropriate Water publication SIOUX VALLEY NEWS, CANTON, S.DAK
12. Principal Features of the Proposed Water Supply System.

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

Well

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

Transmission pipe line

C. Works proposed to apply water to beneficial use.

Municipal Distribution System

Estimated Total Cost \$ 175,000.00

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 Davison) ss.

I, Bernie E. Schmucker 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 Bernie E. Schmucker Engineer for City
Subscribed and sworn to before me this 8 day of May 19 70
Hazel Dawling
Notary Public (or other qualified officer)
My commission expires: August 1, 1971

NW CORNER
OF SECTION 1

NE CORNER
OF SECTION 1

WELL



A MAP SHOWING WELL LOCATION
IN THE NW 1/4 OF THE NE 1/4
OF SECTION 1, T99N, R49W

1/4 LINE

CENTER OF SECTION 1

1/4 LINE

SW CORNER OF
SECTION 1

SE CORNER
OF SECTION 1

SURVEYOR'S CERTIFICATE

I, Bernie E. Schmucker, a Registered Engineer and Land Surveyor of Mitchell, South Dakota, do hereby certify that at the request of the City of Harrisburg, South Dakota, and under their direction, for the purposes indicated therein, I did, on or prior to May 6, 1970, survey the diversion points shown on this plat. I further certify that the within and foregoing plat is in all respects true and correct.
Dated this 6th day of May, 1970.

Bernie E. Schmucker

STATE OF SOUTH DAKOTA

COUNTY OF DAVISON

On this, the 6th day of May, 1970, before me, the undersigned, a Notary Public in and for the said County and State, personally appeared Bernie E. Schmucker, well known to me to be the person who is described in and who executed the foregoing and within instrument, and duly acknowledged to me that he executed the same in his official capacity as a Registered Engineer and Land Surveyor, and for the uses and purposes therein set forth.

IN WITNESS WHEREOF I hereunto set my hand and official seal.

Harold Dowling
Notary Public, South Dakota
My commission expires: August 1, 1971

WELL SITE - NE 1/4 1-99-49

HARRISBURG, SOUTH DAKOTA

SCHMUCKER, PAUL, NOHR, & ASSOCIATES
CONSULTING ENGINEERS - MITCHELL, SOUTH DAKOTA

DRAWN	SCALE	DATE	FILE NO.
M.J.F.	1" = 400'	MAY, 1970	402

MAP NO 1278-3 (APPL NO 1754-3)

WATER RIGHT APPLICATION APPROVAL

The Water Resources Commission hereby approves Water Right Application No. 1754.3

TOWN OF HARRISBURG
(Applicant)

(Post Office Address)

SOUTH DAKOTA
(State)

With the following modifications:

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 MAY 13, 19 70

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

Date of receipt of corrected application =, 19 =

Approved JULY 22, 19 70, Recorded in Book 11 Page 162

WATER RIGHT PERMIT NO. 1754.3

The Water Resources Commission hereby grants and issues this Water Right Permit No. 1754.3 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 MAY 13, 19 70
2. The equivalent of at least one-fifth of the work above specified is to be completed on or before JANUARY 22, 19 71
3. The whole of said work is to be completed on or before JULY 22, 19 71
4. The limit of time from proof of beneficial use of water appropriated in accordance herewith is JULY 22, 19 72
5. The water appropriated shall be used for the purpose of MUNICIPAL USE

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 JULY 22, 19 72; said water to be used during the following described annual period: CONTINUOUSLY

Witness my hand this 28TH day of JULY, 19 70

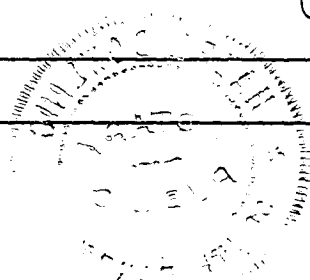
WATER RESOURCES COMMISSION

By:

Jeffrey B. Jones
Chief Engineer, Executive Officer

Certificate of Construction Issued _____, 19 _____

Water License Issued _____, 19 _____



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

D. Well Information or Estimates

- (1) Drill Hole, Diameter 36", Depth 35'
- (2) Casing, Type Steel Diameter 16" Thickness Schedule 40
(wood, concrete, steel, etc)
- (3) Perforated Screen.
Type Wound, Diameter 16" O.D., Length 15'
- (4) Gravel Pack. Thickness 10", Length of gravel pack 20'

E. Dugout Information or Estimates.

- (1) Surface dimensions _____, Depth _____

F. Fill out for Either a Well or a Dugout. -----See attached report.

- (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 100 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.

TOWN OF HARRISBURG, SOUTH DAKOTA

Robert Lind, Chairman
 Signature of Applicant

1754-3

Publish first publication, on or before June 25, 1970NOTICE
INTENT TO APPROPRIATE WATER

Pierre, South Dakota 57501

May 27, 1970Notice is hereby given that the Town of Harrisburg~~whereas the Town of Harrisburg~~, 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 use2.0 cubic feet of water per second of time from ~~the~~ ground water through the Harrisburg Municipal Well, the point of diversion of which is to be located in the _____NW 1/4 NE 1/4of Section 1, Twp. 99N, Range 49W. Said water to be used for the purposeof providing ~~irrigation on the following described tract~~municipal supplies for the Town of Harrisburg

This application No. 1754-3 will be considered by the Water Resources Commission at their office at Pierre upon the 22nd day of July, 1970, at 2:00 P. M. All interested persons may appear and be heard.

WATER RESOURCES COMMISSION

cc: Robert Lind, Mayor
Town of HarrisburgBy: BURTON F. JONES, Water Rights Specialist

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County Lincoln) ss.

I, Marie Beitzel hereby
certify that the annexed printed copy of Notice of Intent to Appropriate

Water was taken from the Sioux Valley 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 _____

Town of Canton

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

June 25

July 2

July 9

July 16

Marie Beitzel
(Signature)

Bookkeeper
(Title)

July 17, 1970
(Date Signed)

NOTICE
INTENT TO APPROPRIATE
WATER

May 27, 1970

Notice is hereby given that
the Town of Harrisburg, South
Dakota, has made an applica-
tion in accordance with the pro-
visions of the water laws of
South Dakota for a permit to
appropriate for beneficial use
2.0 cubic feet of water per sec-
ond of time from ground water
through the Harrisburg Municipal
Well, the point of diversion
of which is to be located in the
NW 1/4 NE 1/4 of Section 1, Twp.
99N, Range 49W. Said water to
be used for the purpose of pro-
viding municipal supplies for
the Town of Harrisburg.

This application No. 1754-3
will be considered by the Wa-
ter Resources Commission at
their office at Pierre upon the
22nd day of July, 1970, at 2:00
p. m. All interested persons
may appear and be heard.

WATER RESOURCES
COMMISSION

By:
BURTON F. JONES,
Water Rights Specialist
cc:
Robert Lind, Mayor
Town of Harrisburg
6-25; 7-2; 9-16

RECEIVED
JUL 20 1970

STATE WATER RESOURCES COMM.
PIERRE, SOUTH DAKOTA

WATER RESOURCE DEVELOPMENT
THROUGH A TEST DRILLING PROGRAM
IN THE BIG SIOUX AQUIFER

LINCOLN COUNTY
SOUTH DAKOTA

3 pr 2 2 2 2
B J B-2 2
PE 2 2

REA

INTRODUCTION

This report contains the results of a special investigation made by Lincoln County officials from July 30, 1969 to August 15, 1969 along the Big Sioux River, east of Harrisburg, South Dakota. The purpose of the investigation was to assist Lincoln County in locating future water supplies. Northern Lincoln County presently does not have adequate quantities of good quality water. These future water supplies could be the source for future rural water systems developed in the county as outlined in the Water and Sewer Plan section of the Comprehensive Water and Sewer Plan.

The investigation consisted of drilling 19' auger test holes to average depth of 37 feet and the taking of eleven water samples for analyses.

As a result of this investigation it was recommended that a production test well be drilled in the Northeast 1/4 of Section 1 Township 99 North Range 49 West at the approximate location of test hole number 11 as shown on Illustration 1. This test well has subsequently been drilled and the results of this test will be discussed later herein.

The preparation of this report was performed under the supervision of Ronald Jackson, Engineer. The field work was performed by the Sioux Well Drilling Company of Sioux Falls, South Dakota and supervised by Ronald Jackson. Test hole locations were determined by Mr. Cleo Christensen, Ground Water Geologist, with the State Geological Survey, with slight alterations caused by access difficulties. Special thanks go to Mr. C. R. Kennedy of the Farmers Home Administration and to the Lincoln County Planning Commission and the Lincoln County Commissions, without whose cooperation the program could not have been completed.

LOCATION AND PROCEDURE

Lincoln County is located in southeastern South Dakota in the James Basin of the Central Lowland physiographic province. The climate is continental temperate, with large daily and seasonal fluctuations. The average daily temperature is about 46°F. and the average annual precipitation is about 25 inches. The surficial deposits in the test area is alluvium. Alluvium consists of silt and clay-size particles with minor amounts of sand. These materials were deposited by the Big Sioux River since the retreat of the glaciers.

The procedure used in conducting the tests was to move the drilling rig to the approximate recommended locations, where a test hole was completed. The hole was dug with a 4 inch auger drill. Soil samples were taken at approximately 5 foot intervals along with information concerning the level at which water was encountered and the depth of the water bearing formation. The holes were drilled, where possible, to bedrock. However, several holes were abandoned before bedrock was encountered. The cause of this was obstructions, such as boulders, which the drilling rig could not penetrate. The depth of each hole, along with the soils encountered and whether or not bedrock or an obstruction terminated the drilling is shown for 13 of the test holes on Illustration 2. Water samples were obtained by lowering a container into the completed hole and allowing the water to flow into it. The results of these chemical analyses is tabulated on Table 1.

FINDINGS

The results of this study showed that the outwash deposits in Section 1 Township 99 North Range 49 West constituted the best possibility for developing a well field. The approximate extent of the aquifer material in this area is shown on Illustration 1. As can be seen on Table 1 the water in these deposits is quite good. Water level in the area was at an average depth of 11 feet. Due to the apparent extent of the aquifer material and the fact that the chemical analysis indicated that the water was satisfactory for domestic use, a temporary production well was constructed. The location of the test well corresponds with test hole number 11, shown on Illustration 1. The details of the well are as follows:

Well depth - 35 feet

Well bore - 36 inches

Well Casing - 16 inch diameter

Well Screen - 16 inch diameter

Screen length - 10 feet

Gravel pack - 30 feet - 10 inches thick in annular of 1/2
inch diameter pea rock.

The well yield was 120 gallons per minute with drawdown and recovery rates recorded as follows:

3 feet first half hour

2 feet next half hour

1 foot next half hour

1/2 foot next half hour

1/2 foot next half hour

0 after three hours

6 feet of recharge during the first 20 minutes after total pump stop.

2 feet during the next 20 minutes after pump stop.

The sand pumpage was recorded as follows:

5 gallons during first two hours.

2 gallons during the next two hours.

1 gallon during the next two hours.

0 after 6 hours.

On the basis of the test drilling program and the production well test it is apparent that there is a good ground water aquifer in Section 1. This aquifer has produced a minimum of 120 gallons per minute on a 24 hour test and will produce even more using a standard irrigator screen. It is recommended that this aquifer be used as a water supply for future rural water systems in the County and that County officials take the necessary steps to create rural water districts and construct such systems.

TABLE 1 CHEMICAL ANALYSES OF WATER SAMPLES

WATER SAMPLE (For Location See Illustration 1)	DEPTH TO WATER	CALCIUM	IRON	MAGNESIUM	MANAGNESE	NITRATE	SULPHATE	pH	TOTAL HARDNESS
Federal Standards	-	-	0.3	50	0.1	10	500	-	-
Hole No. 2	13'	520	0.18	160	1.11	11.2	312	8.0	680
Hole No. 4	15'	300	0.12	180	1.53	4.5	265	8.0	480
Hole No. 5	15'	390	0.18	170	0.63	11.2	312	7.9	580
Hole No. 8	15'	390	0.0	120	0.09	0.0	205	-	510
Hole No. 11	14'	335	0.0	175	0.43	0.4	680	7.4	510
Hole No. 13	14'	280	0.0	90	1.23	0.2	228	7.4	370
Hole No. 14	6'	460	0.0	60	0.0	1.4	215	7.5	520
Hole No. 16	6'	680	0.0	70	0.43	1.0	345	7.5	750
Hole No. 17	13'	340	0.0	30	0.51	3.4	-	-	370
Hole No. 18	10'	450	0.18	190	2.77	0.5	312	8.1	640
Hole No. 19	10'	590	0.20	270	1.23	0.45	352	7.8	860

141A
336-2980

99N 49W

Lincoln Union Elc

3181

Blount

Sec 2 & 1

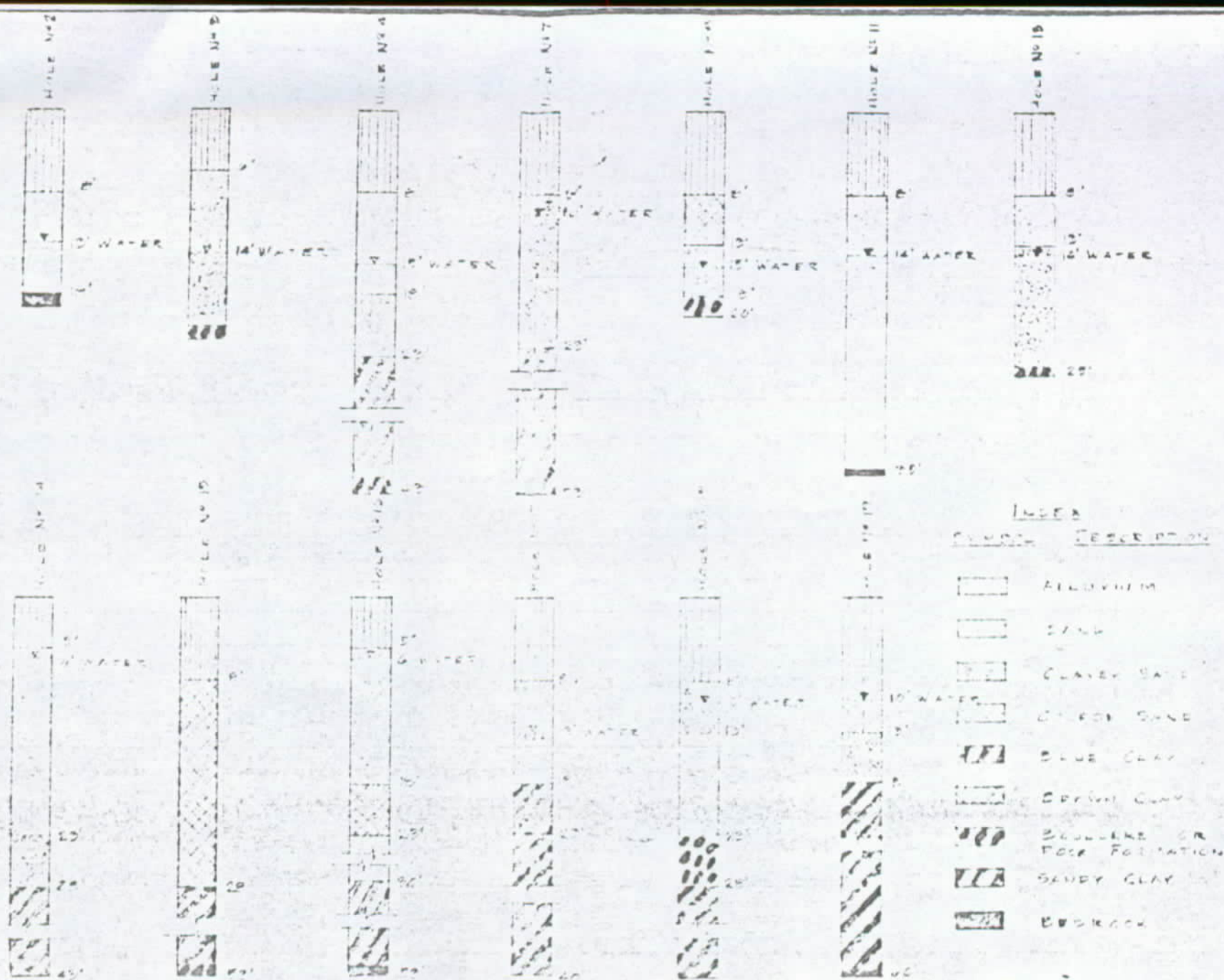
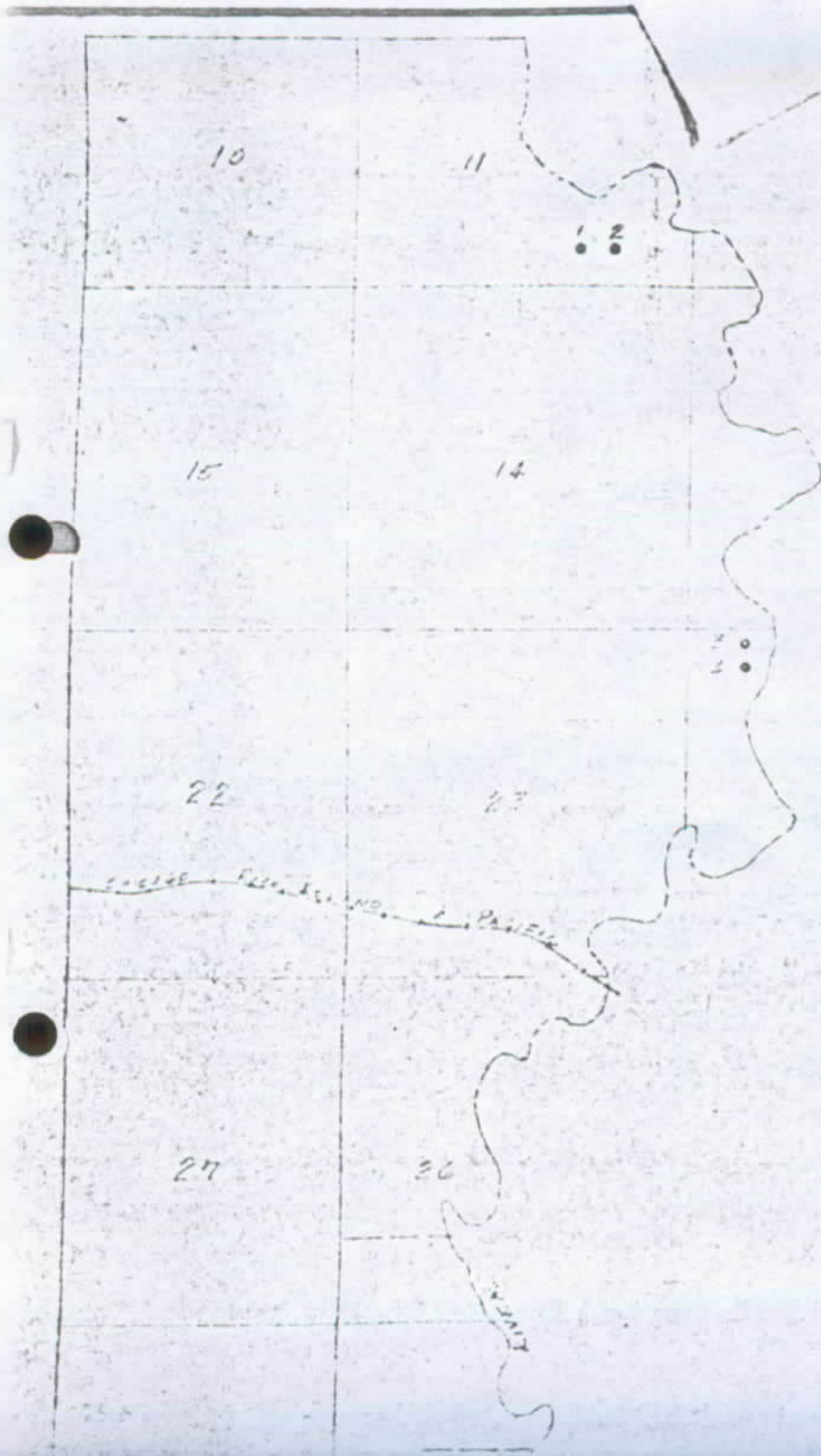


ILLUSTRATION 2





SCALE 1" = 24000'

TREE HOLE LOCATIONS

LINCOLN COUNTY

SOUTH DAKOTA

ILLUSTRATION 1



SHEET NO.

1

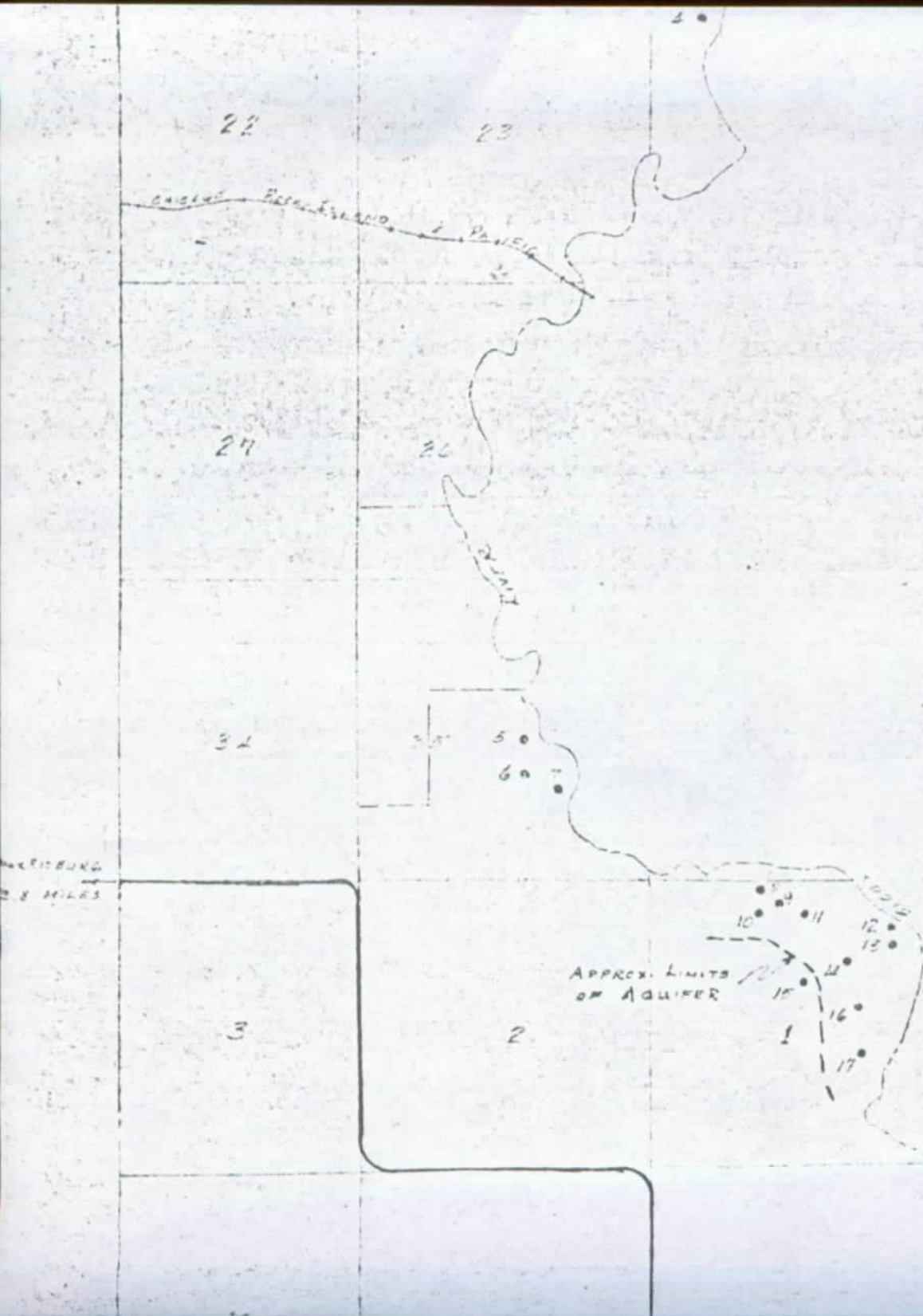
OF 1
ARCHITECTS • ENGINEERS • PLANNERS
LINCOLN, S. D.
SHARP BUILDING

TEST HOLE LOCATIONS

LINCOLN COUNTY

SOUTH DAKOTA

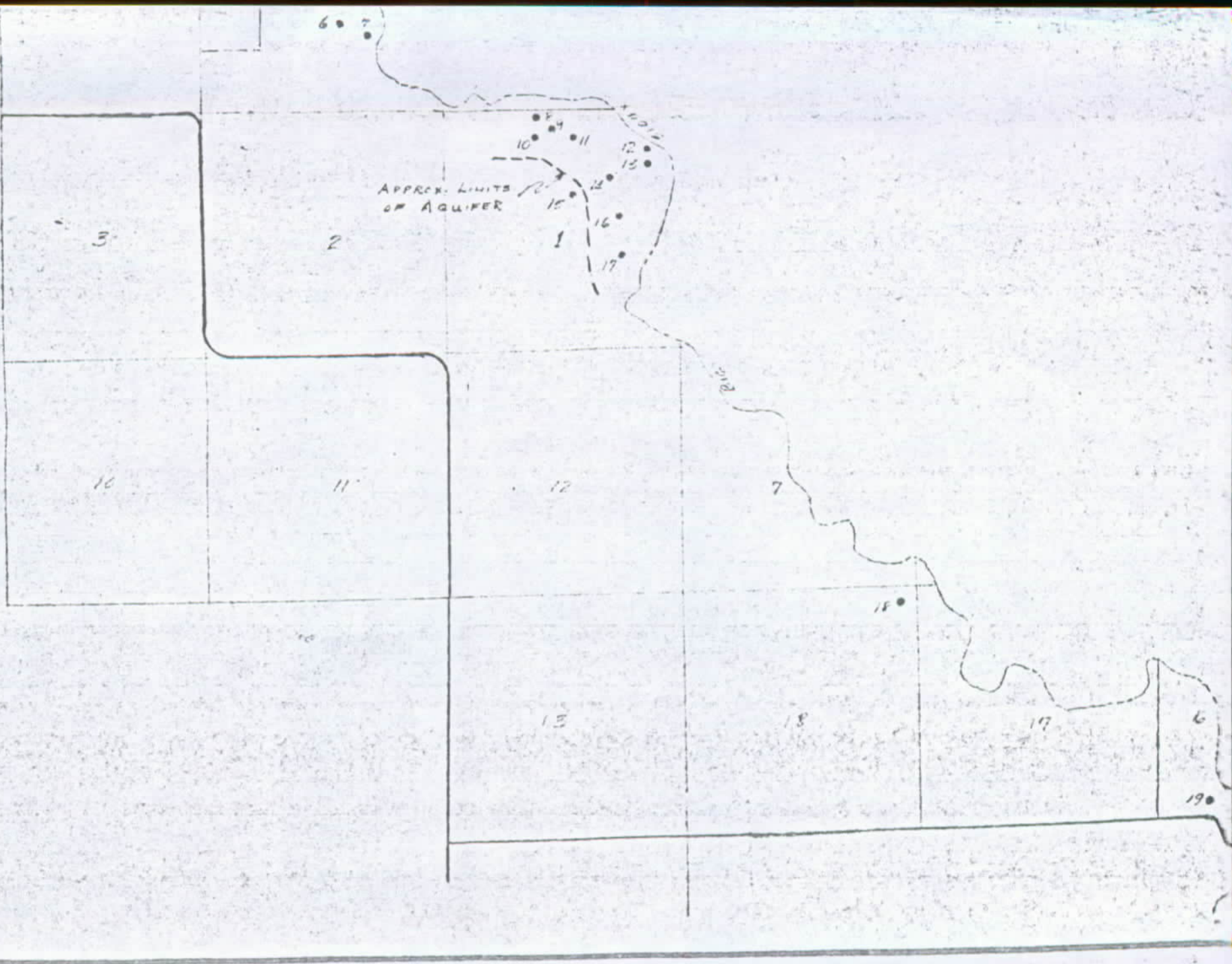
ILLUSTRATION 1

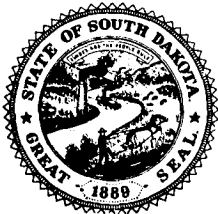


HARTSBURG

2.2 14415

APPROX. LIMITS
OF AQUIFER



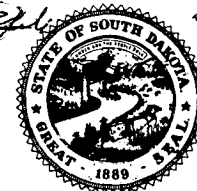


Burt Jones
WRights

66-445
11/24/81

INTER-DEPARTMENT CORRESPONDENCE

State of South Dakota



From Dept. of J.C. Andersen To Dept. of Mark Steichen
Subject 5.2 Harrisburg Date November 23, 1981

In response to a phone call last Thursday from Russell Abbott, Superintendent of Water Works, Harrisburg, I visited him this date.

The town recently dug a new well. This new 32 ft. deep well is located 800 ft. south of the old well, which is in the NW 1/4 of the NE 1/4, Section 1, T99N, R49W. The drill hole was 24" and a 16" casing was installed. It has a 4" gravel pack. This well will not be developed or completed until next Spring. They do have a 2 CFS Water Right under Permit No. 1754. I will help them fill out the new forms next Spring. They will need an "additional diversion" of about 100 gpm.

Respectfully yours,

J.C. Andersen
Regional Office Supervisor

JCA:dr

CC: Burt Jones

P.S. The local driller will provide Russell with the log of the new well within the next few weeks.

#05-0083



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

MAY 10 2004

4883-3

City of Harrisburg
Dan Fink Utility Superintendent
PO Box 26
Harrisburg SD 57032

Dear Mr. Fink:

Enclosed is Water License No. 4883-3. This is the final water right document completing your process of obtaining a Water Right. Enclosed is Receipt No. 000942 in the amount of \$50.00 which you paid for the investigation and issuance of the Water License.

As long as you use the water beneficially, as stated in the Water License, State Water Laws provide that you have a continuing right to use the water.

Sincerely,

Garland Erbele, Chief Engineer
Water Rights Program
(605) 773-3352

NOTE: The applicable portions of No. 1754-3 are incorporated into Water License No. 4883-3

enclosures