

- Driller Culham & Brown, Inc. Licensed - yes _____ no ✓
Depth ~~550~~ ' deep Will drilled 1974 driller was
580 licensed at that time.
Remarks _____

MAP Map No. 1843-2 Map located in Water Right ✓ Map file _____
 Type of Map drawn Prepared by C.C. Mc/Cue
Walt Supt

+++++

REVIEWED This Application was received within 30 days of the date received, accepted as complete, Number assigned and written up for advertisement before the Board on:
5/19/83

Betty Westlund
 (Signed)

+++++

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 was
 DECISIONS adopted _____
 ETC. Remarks _____



No. 1843-2
 Map No. 1843-2 Water Division No. White River District
 Above for Office Use 10140203

APPLICATION FOR PERMIT To Appropriate Water within the State of South Dakota

Check one of the following:

New ☒ Vested Right _____ Future Use _____

Change in Diversion _____ Additional Diversion _____

Change in Acreage _____ Additional Acreage _____

1. Name of Applicant City of Martin Phone No. 685-6525
 Post Office Address PO Box 687 Martin State S.D. 57551
(Street, RR, or Box) (Town) (Zip Code)
 If a corporation show date and place of incorporation _____ ?

2. Method of accomplishing work (contract, employment of others, or by direct labor) _____ ?

3. Name of diversion work Wells #1, #2, #44. Amount of water claimed (cubic feet per second) 1.13 CFS or 510 GPM . 40 (180 GPM)5. Source of water supply Groundwater

6. Location of point of diversion #1 - 1725' W, 937' N #2 - 2137' W, 1125' N
#4 1575' E, 2250' N. All these are from the SE
corner of Sec 18, T37N, R37W County Bennett

7. Annual period or periods during which water is to be used year round8. 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 _____ ? _____ years. Additional time required
 to complete application of water to the proposed beneficial use _____ 0 _____ years.

11. Choice of county newspaper for publication of Notice of Intent to Appropriate Water Bennett Co Booster II

12. Principal Features of the Proposed Water Supply System.

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

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

Two Reservoirs and the distribution system

C. Works proposed to apply water to beneficial use.

Estimated Total Cost \$ _____ ?

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

STATE OF SOUTH DAKOTA)

County of Bennett) ss.I, Clayton C. McCue Water Supt.

of City of Martin 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 Clayton C. McCueSubscribed and sworn to before me this 9th day of May, 19 83

Ruelle Cogad
 Notary Public (or other qualified officer)

My commission expires: 3/11/85

WATER RIGHT APPLICATION APPROVAL

The Water Management Board hereby approves Water Right Application No. 1843-2

City of Martin
(Applicant)

Box 687, Martin
(Post Office Address)

South Dakota
(State)

With the following qualifications.

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

Date of first receipt of application May 10, 1983

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

Date of receipt of corrected application —, 19—

Approved July 20, 1983, Recorded in Book — Page —

WATER RIGHT PERMIT NO. 1843-2

The Water Management Board hereby grants and issues this Water Right Permit No. 1843-2 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 May 10, 1983
2. The equivalent of at least one-fifth of the work above specified is to be completed on or before —, 19—
3. The whole of said work is ~~to be completed on or before~~ —, 19—
4. The limit of time from proof of beneficial use of water appropriated in accordance herewith is —, 19—
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 0.40 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~~

BW MUNICIPAL USE for ~~irrigation~~ on or before July 20, 1983; said water to be used during the following described annual period: CONTINUOUS

Witness my hand this 2nd day of August, 1983

THE WATER MANAGEMENT BOARD

By: John H. H. H.
Chief Engineer, Water Rights

Certificate of Construction Issued —, 19—

Water License Issued —, 19—

Wells #1, #2, #4
(1936) (1949) (1975)

D Well Information

- (1) Drill Hole, Diameter _____, Depth 500', 480', 580'
- (2) Casing, Type _____, Diameter 3", 8", 6", Thickness _____
(wood, concrete, steel, etc.)
- (3) Screen, Type _____, Diameter _____, Length _____
- (4) Gravel Pack, Thickness _____, Length of gravel pack _____

~~E Dugout Information or Estimates~~

- ~~(1) Surface dimensions, _____, Depth _____~~

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

- (1) Water Bearing Materials. (Attach a copy of test well log)

Depth to top of water bearing material _____

Depth to bottom of water bearing material _____

Depth to water (ground surface to water level) _____

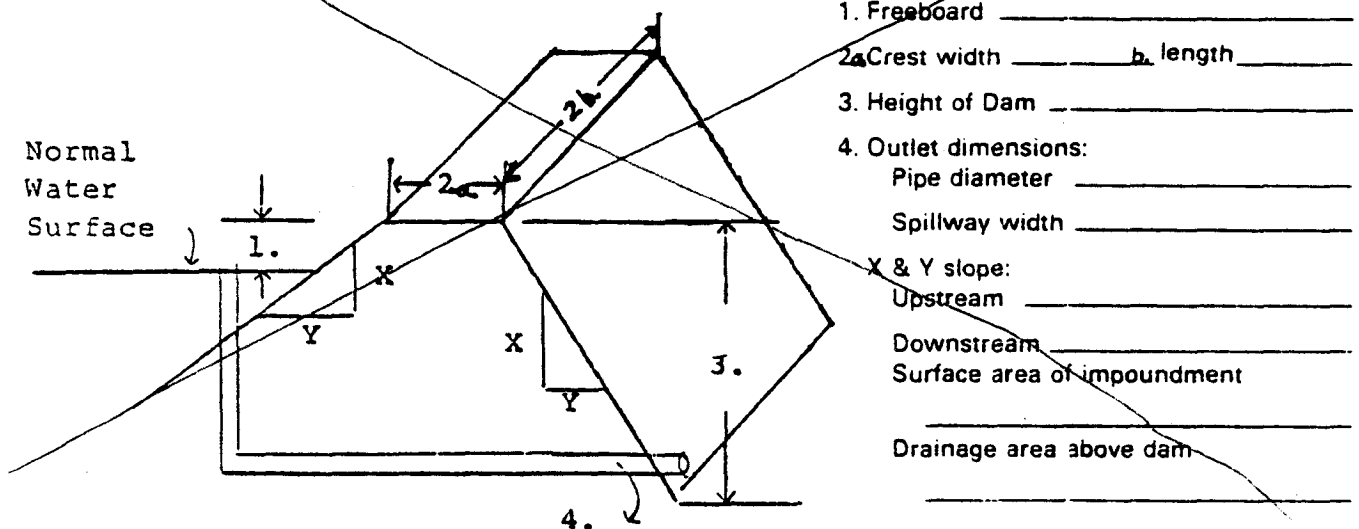
- (2) Distance to nearest existing household or livestock watering well.

On same owner's property _____ rds.

On property owned by others _____ 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, length, maximum water depth, surface area, drainage area, storage capacity, dam slope, dimensions, location and size of outlet works, of each storage dam. The location of each water storage dam should be shown on the water right map.



CITY OF MARTIN

WNR-802A()-7/79

BY: Clayton C. Martin
Signature of Applicant
Water Superintendent

RECEIPT

WATER RIGHTS COMMISSION

State of South Dakota

No 4 9245

PIERRE, May 13, 1983, 19

RECEIVED OF City of Martin, Box 687, Martin, SD 57551

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

Fee for Application for Permit to Appropriate Water No. 1843-2 (examination, processing, recording and filing)	150	00
Fee for inspecting Construction, and issuing Cert. of Construction No.		
Fee for inspecting Beneficial Use, and issuing Water License No.		
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	150	00

WATER RIGHTS COMMISSION

By John Hatch
Chief Engineer, Executive Officer

JOHN HATCH/ms

REPORT ON WATER PERMIT APPLICATIONS NO. 1843-2
and VESTED RIGHT APPLICATION No. 1844-2 FOR THE CITY OF MARTIN
May 25, 1983

Water Permit Application No. 1843-2 requests a diversion of 0.40 cfs from a 580' well #4 which was drilled in 1974. Vested Right Claim No. 1844-2 claims 0.73 cfs from Well #1 and #2. Well #3 is covered under existing Water Permit #677-2.

Aquifer
Arikaree Formation

Geology and Aquifer Characteristics

The Arikaree can be described as approximately 500' of fine grained sandstone and siltstone with clayey silt (Ellis, 1971) and basically impossible to differentiate from drill cuttings and logs. Area drillers and residents call the Arikaree "Redrock" because of red appearance in drill cuttings. Somewhat surprisingly, good well yields can be obtained from the Arikaree with a properly constructed well. Pumping records from City Well #3 indicate a specific capacity of 4 gallons per foot of drawdown (i.e. - a 400 gpm well would drawdown 100 feet). The porosity of the Arikaree has been estimated at 35% and the effective porosity (water that can be withdrawn by a well) at 10% (Rahn, 1979). Water Rights experience during the drilling of 41 observation wells (Water Right, 1983) in Bennett County is much the same. Of these observation wells 20 are cased into the Arikaree and 21 into the Ogallala and unfortunately not closer than 3½ miles from Martin.

Generally, groundwater movement is from the higher elevations in the south to the north. Also this is where the Ogallala overlies the Arikaree and should be providing recharge to the Arikaree. The Little White River is the major discharge stream in the system and possibly could also be recharging the Arikaree where the Ogallala is absent. My personal examination of drill cutting reveal that the siltstone facies of the Arikaree contains many vug like cavities probably connected by fractures. The sandstones are fine grained and poorly cemented. These rocks are interbedded and virtually impossible to differentiate even with an E-log. Results of irrigation well drilling into the Arikaree which are constructed much like city well #3 have proven successful. Probably fractures extend throughout the formation and by constructing a large diameter (30") hole, gravel packing the entire saturated thickness and selectively screening the aquifer using E-logs, this enables the entire formation to yield water to the well.

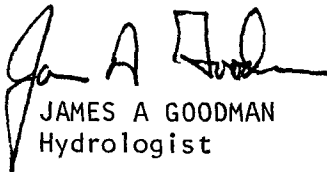
Review of Existing Rights

677-2 City of Martin	Arikaree (518')	0.55 cfs municipal
851-2 Markota Acres, Inc.	Arikaree (520')	0.22 cfs irrigation
		30 acres golf course

The existing irrigation permits are far enough away so as not to affect these applications (see Bennett County irrigation map).

Conclusions

1. Water is available. The specific capacity of Well #3, the saturated thickness of the Arikaree (over 350'), lack of drawdowns in observation wells, apparent water table conditions of aquifer all reinforce this statement.
2. The basic aquifer characteristics are unknown. Therefore, it is not possible to attempt to define interference as a potential problem. An aquifer test should be done to determine these characteristics.
3. Water Rights recommends that any new wells be constructed similar to Well #3 and as proposed by Gries in 1964.
4. Water Right is not aware of any existing interference between city wells and the Markota well but that does not mean there is not interference. There have never been any complaints. The wells covered under this application have been in use.


JAMES A GOODMAN
Hydrologist

Ellis, M.J. and D.G. Adolphson, 1971, Hydrogeology of the Pine Ridge Indian Reservation, South Dakota, USGS Atlas HA-357.

Gries, J.P., 1964, Mineral Resources and Their Potential on Indian Lands, U.S. Dept. of Interior, Bureau of Mines, Preliminary Report 153.

Rahn, P.H., 1979, Groundwater of Western South Dakota, for U.S. Army Corps of Engineers, SDSM & T Project #2533.

Water Rights Files, 1983. Joe Foss Bldg, Pierre SD 57501, (605) 773-3352.

MARTIN

1001+T



#1

#2

#3

MARKOTA WELL

(NOT USED)

NEEDS TO FIX - GOOD WELL

EXISTING WELL
(PUBLIC HEALTH SERVICE)
WENT DEEP ??
CAPPED

EXISTING WELL
(PUBLIC HEALTH SERVICE WELL)

RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT APPLICATION

No. 1843-2, City of Martin SD

Pursuant to Section 4, House Bill 1002, 1983 Legislature, the following is the recommendation of the Chief Engineer, Water Rights Division, Department of Water and Natural Resources concerning Water Permit Application No. 1843-2, City of Martin, PO Box 687, Martin, South Dakota.

The Chief Engineer is recommending APPROVAL of Application No. 1843-2 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) that the proposed diversion can be developed without unlawful impairment of existing rights, 3) that the proposed use is a beneficial use and 4) in the public interest with the following qualifications:

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

The attached report is a part of this recommendation.


JOHN HATCH, Chief Engineer
June 1, 1983

Instructions to Newspaper - Publish first publication of following Notice on or before
June 9, 1983 with 2nd publication 1 week later. The applicant is responsible for payment.

NOTICE of HEARING on Application No. 1843-2 to Appropriate Water
~~and/or to Amend Water Permit or Water Right No. _____~~

Notice is hereby given that City of Martin whose mailing address is P0 Box 687
Martin

, South Dakota has made an application pursuant to the provisions of
 SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-14, Section 13 of HB 1001 enacted by 1983 Legis-
 lature; 46-2-3.1, 46-2-9, 46-2-11, 46-2-13, Section 32 of HB 1001; 46-5-1 thru 46-5-8, 46-5-10,
 thru 46-5-16, 46-5-24, 46-5-25, 46-5-31, Sections 38, 47, 59 & 67 of HB 1001, Sections 1, 4,
 5, 6, 11, 12, 13, 16, 18, 19 & 21 of HB 1002; ~~(ground)~~ 46-6-3, 46-6-3.1, 46-6-6.1, 46-6-10,
 46-6-13, 46-6-14; ~~(future use) 46-5-38 thru 46-5-40, Section 71 of HB 1001; (transfer lands)~~
~~46-5-33 thru 46-5-35; (10,000 AFA) 46-5-20.1, 46-5-8.1; and Board Rules ARSD 74:02:01:01~~
~~thru 74:02:01:15; (future use) 74:02:01:24 thru 74:02:01:26; (10,000 AFA) 74:02:01:15:02~~
~~thru 74:02:01:15:05;~~ (several of the preceeding SDCL Sections are amended by HB 1001 & 1002
 of 1983 Legislature) for a permit to appropriate 0.40 cubic feet per second from groundwater
 one 580' deep well (Arikaree formation) through the Well #4, the point of diversion to
 be located in the NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 18, T37N, R37W. Said water to be used for the
 purpose of providing water supplies for municipal use.

Pursuant to Section 4 of HB 1002 the Chief Engineer of the Water Rights Division recommends
Approval of Application No. 1843-2 because 1) unappropriated water is available,
 2) will be no unlawful impairment of existing rights, 3) is beneficial use of water and
 4) is in the public interest.

This application will be considered by the Water Management Board at Community Room, Basement
Day Co. Courthouse; 710 W 1, Webster SD upon the 19 day of July, 1983 at 10:00 am.

The recommendation of the Chief Engineer is not final or binding upon the Board and the
 Board is authorized to make a determination on this application after it reaches a con-
 clusion based upon facts presented at the public hearing. Any interested person who may
 be affected by a Board decision and who intends to participate in the hearing before the
 Board and present evidence or cross-examine witnesses according to SDCL 1-26, must file a
 written petition with the Chief Engineer and the Applicant by July 8, 1983.
 The petition may be informal, but it must include a statement describing the petitioners
 interest in the application, the reason for the petitioner's opposition to or support of
 the application, and the signature and mailing address of the petitioner or his legal counsel
 if legal counsel is obtained. The applicant need not file a petition. The time of the
 hearing will be automatically extended for at least twenty days upon written request of the
 applicant or any person who has filed a petition to oppose or support the application. The
 request for extension must be filed with the Chief Engineer by July 8, 1983.

This hearing is an adversary proceeding. The applicant or any person, after filing a
 petition, 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. Decisions of the Board
 may be appealed to the Circuit Court and the State Supreme Court as provided by law.

Any person wishing a copy of the Chief Engineer's recommendation, further information on
 this application or to assure access to the hearing by the handicapped can contact the
 Water Right Division, DWNr, Joe Foss Bldg., Pierre SD (605 773-3352) for assistance
 prior to the hearing date.

No. 1843-2

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County Bennett) ss.

I, Mary E. Long hereby

certify that the annexed printed copy of Notice of Intent to Appropriate

Water was taken from the Bennett County Booster II

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 Martin of _____

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

June 9, 1983

June 16, 1983

Mary E. Long
(Signature)

Editor
(Title)

6-17-83
(Date Signed)

NOTICE OF HEARING
ON APPLICATION NO. 1843-2
TO APPROPRIATE WATER

Notice is hereby given that City of Martin, whose mailing address is P.O. Box 687, Martin, South Dakota, has made an application pursuant to the provisions of SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-14, Section 13 of HB 1001 enacted by 1983 Legislature; 46-2-3.1, 46-2-9, 46-2-11, 46-2-13, Section 32 of HB 1001; 46-5-1 thru 46-5-8, 46-5-10, thru 46-5-16, 46-5-24, 46-5-25, 46-5-31, Sections 38, 47, 59 and 67 of HB 1001, Sections 1, 4, 5, 6, 11, 12, 13, 16, 18, 19 and 21 of HB 1002; 46-6-3, 46-6-3.1, 46-6-6.1, 46-6-10, 46-6-13, 46-6-14; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15; (several of the preceding SDCL Sections are amended by HB 1001 and 1002 of 1983 Legislature) for a permit to appropriate 0.40 cubic feet per

Cost of Printing: \$37.91



second from groundwater one 580 feet deep well (Arikaree formation) through the Well No. 4, the point of diversion to be located in the NW 1/4 SE 1/4 of Section 18, T37N, R37W. Said water to be used for the purpose of providing water supplies for municipal use.

Pursuant to Section 4 of HB 1002 the Chief Engineer of the Water Rights Division recommends Approval of Application No. 1843-2 because (1) unappropriated water is available, (2) will be no unlawful impairment of existing rights, (3) is beneficial use of water and (4) is in the public interest.

This application will be considered by the Water Management Board at Community Room, Basement Day County Courthouse, 710 W. 1, Webster, S.D., upon the 19 day of July, 1983, at 10:00 a.m.

The recommendation of the Chief Engineer is not final or binding upon the Board and the Board is authorized to make a determination on this application after it reaches a conclusion based upon facts presented at the public hearing. Any interested person who may be affected by a Board decision and who intends to participate in the hearing before the Board and present evidence or cross-examine witnesses according to SDCL 1-26, must file a written petition with the Chief Engineer and the Applicant by July 8, 1983. The petition may be informal, but it must include a statement describing the petitioners interest in the application, the reason for the petitioner's opposition to or support of the application, and the signature and mailing address of the petitioner or his legal counsel if legal counsel is obtained. The applicant need not file a petition. The time of the hearing will be automatically extended for at least twenty days upon written request of the applicant or any person who has filed a petition to oppose or support the application. The request for extension must be filed with the Chief Engineer by July 8, 1983.

This hearing is an adversary proceeding. The applicant or any person, after filing a petition, 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. Decisions of the Board may be appealed to the Circuit Court and the State Supreme Court as provided by law.

Any person wishing a copy of the Chief Engineer's recommendation, further information on this application or to assure access to the hearing by the handicapped can contact the Water Right Division, DWNR, Joe Foss Building, Pierre, S.D., (605 773-3352) for assistance prior to the hearing date.

21-52



Department of Water & Natural Resources

Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501

Division of Water Rights
605 773-3352

1843-2

August 3, 1983

Clayton C McCue, Water Supt.
City of Martin
PO Box 687
Martin SD 57551

Dear Mr. McCue:

Enclosed herewith is your Water Permit No. 1843-2 as approved by the Water Management Board authorizing you to construct your water diversion system and the water to beneficial use, not exceeding the limits as specified in said Water Permit No. 1843-2.

Also enclosed is Form 10, Notice of Completion of Works and Application of Water to Beneficial Use, which you are to complete and submit to the Chief Engineer when you have completed the system and/or have put the water to beneficial use. An inspection can then be scheduled so that your Water License may be issued to you, thus completing your acquisition of a Water Right.

Very truly yours,

A handwritten signature in cursive script that reads "John Hatch".

JOHN HATCH, Chief Engineer
Water Rights Division

JH: ks

enclosure

PLEASE NOTE: Certain changes can be made in your permit within the five year construction period, usually without affecting the priority date provided an application to amend your permit is made within the five year period-i.e. changes in location or number of diversion points (wells) or location of land to be irrigated. Well locations for wells into the same aquifer can be moved up to 660 feet without application.

Applications to amend a permit after the five year construction period will be assigned a new priority date. Applications to change water sources, to add lands or increase original diversion rates, if approved will usually receive the date of the new application as a priority date regardless of the five year construction period.

WNR-809-5/83

Abounded (wall) #4
N.E. of Ball
Diamond
IMPORTANT DATA

IMPORTANT DATA

orm prepared by Missouri Geological Survey and Water Resources
Box 250, Rolla, Missouri

White: Driller's copy
Blue: Mail to Missouri Geological Survey
Pink: For well owner

WATER WELL RECORD

1843-2
FEB 13 1975
m

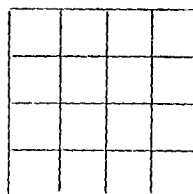
DRILLERS LOG OF WELL

d of rock, color, hard, or soft etc.	From (ft.)	To (ft.)
Martin TH # 2		
Silt, little clay	0	5
Silt, clay	5	10
Silt, sandstone hard	10	15
Silt, sandstone hard	15	20
Silt, sandstone hard	20	25
Very little silt, hard sandstone	25	30
Hard sandstone	30	35
Sandstone, silt	35	40
Sandstone	40	45
Silt, little sandstone	45	50
Silt, little sandstone	50	55
Hard sandstone	55	56
Silt, sandstone	56	57
Hard sandstone	57	60
Silt, sandstone	60	65
Silt, little sandstone	65	70
Sandstone, silt	70	75
Sandstone, silt	75	80
Sandstone, silt	80	85
Sandstone, silt	85	90
Sandstone, silt	90	95
Sandstone, silt, very little clay	95	100
Silt, sandstone	100	105
Silt, sandstone, little clay	105	110

Continued

IMPORTANT DATA

Location of Well County Bennett
(Show location in Section Plat) Martin S. Dakota



_____ 1/4 _____ 1/4 Sec. _____

T _____ N, R _____

Total depth 520' Elev. _____

Well Owner Indian Health Service

Address Martin, South Dakota

Mileage and direction from nearest town or highway _____

N.E. of Ball Park

Drilling Contractor Cullum & Brown

Address N.K.C., Missouri

Date Drilled 1-28-75

Method of Drilling Mud Rotary
(Cable tool, rotary, reverse rotary, etc.)

Casing Schedule none
(Amount, Size, Setting - New, Used - Steel, Galv., - Gage or Weight)

Screen Data (if any): none
(Length, Diameter, Slot Size, Setting)

Measured depth to water on completed well (Static Level)

Is _____ ft. below _____
(Land Surface, Top of Casing Etc.)

Tested Yield _____ gallons per _____
(Min., Hour)

as determined by _____
(Bailing, Test Pumping, Etc.)

Drawdown _____ ft. after _____ hrs.

pumping at _____ gal. per minute _____

Remarks 1-28-75 started drilling @1:00pm
drilled to T.D. @7:00p.m.,
Logging probe stuck @478'
1-29-75 Freed probe, 1-30-75
completed logging @11:00 a.m.



RECORD

DRILLERS LOG OF WELL

of rock, color, hard, or soft etc.	From (ft.)	To (ft.)
Silt, sandstone	110	115
Silt, sandstone	115	120
Silt, sandstone	120	125
Silt, sandstone	125	130
Silt, sandstone, very little clay	130	135
Silt, sandstone, very little clay	135	140
Silt, little clay, sandstone	140	145
Little silt, sandstone, little clay	145	150
Clay, sandstone, little silt	150	155
Clay sandstone, little silt	155	160
Sandstone, little clay, lit. silt	160	165
Sandstone, lit. clay, lit. silt	165	170
ay, sandstone	170	175
Clay, sandstone	175	180
Sandstone, clay	180	185
Sandstone, clay	185	190
Sandstone, clay	190	195
Sandstone, clay	195	200
Clay, sandstone	200	205
Clay, sandstone	205	210
Clay, sandstone	210	215
Clay, sandstone	215	220
Clay, sandstone	220	225
Clay, sandstone	225	230
Clay, sandstone	230	235

Form prepared by Missouri Geological Survey and Water Resources
Box 250, Rolla, Missouri

Location of Well _____ County _____
(Show location in Section Plat)

1/4 1/4 Sec.

T_____N, R_____E
W

Total depth _____ Elev. _____

Well Owner _____

Address _____

Mileage and direction from nearest town or highway—

Drilling Contractor_____

Address _____

Date Drilled _____

Method of Drilling _____
(Cable tool, rotary, reverse rotary, etc.)

Casing Schedule
(Amount, Size, Setting - New, Used - Steel, Galv., - Gage or Weight)

Screen Data (if any): _____
(Length, Diameter, Slot Size, Setting)

Measured depth to water on completed well (Static Level)
is _____ ft. below _____
(Land Surface, Top of Casing Etc.)

Tested Yield _____ gallons per _____
(Min., Hour)

as determined by _____
(Bailing, Test Pumping, Etc.)

Drawdown _____ ft. after _____ hrs.

pumping at _____ gal. per minute _____

Remarks



White: Driller's copy

Blue: Mail to Missouri Geological Survey

Pink: For well owner

Page 3

WATER WELL RECORD

DRILLERS LOG OF WELL

Kind of rock, color, hard, or soft etc.	From (ft.)	To (ft.)
Clay, little clay	235	240
Clay, little silt	240	245
Clay, sandstone	245	250
Clay, sandstone	250	255
Clay, sandstone	255	260
Clay, sandstone	260	265
Clay sandstone	265	270
Clay, sandstone	270	275
Clay, sandstone	275	280
Clay sandstone	280	285
Clay, sandstone	285	290
Clay, sandstone	290	295
Clay, sandstone	295	300
Clay, sandstone	300	305
Clay, sandstone	305	310
Clay, sandstone	310	315
Clay, sandstone	315	320
Clay, sandstone	320	325
Clay, sandstone	325	330
Clay, sandstone	330	335
Clay, sandstone	335	340
Clay, sandstone	340	345
Clay, sandstone	345	350
Clay, sandstone	350	355
Clay, sandstone	355	360

Continued

IMPORTANT DATA

Location of Well _____ County _____
(Show location in Section Plat)

_____ 1/4 _____ 1/4 Sec.

T _____ N, R _____ E
W

Total depth _____ Elev. _____

Well Owner _____

Address _____

Mileage and direction from nearest town or highway _____

Drilling Contractor _____

Address _____

Date Drilled _____

Method of Drilling _____
(Cable tool, rotary, reverse rotary, etc.)

Casing Schedule _____
(Amount, Size, Setting - New, Used - Steel, Galv., - Gauge or Weight)

Screen Data (if any): _____
(Length, Diameter, Slot Size, Setting)

Measured depth to water on completed well (Static Level)

Is _____ ft. below _____
(Land Surface, Top of Casing Etc.)

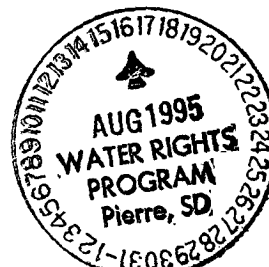
Tested Yield _____ gallons per _____
(Min., Hour)

as determined by _____
(Bailing, Test Pumping, Etc.)

Drawdown _____ ft. after _____ hrs.

pumping at _____ gal. per minute

Remarks _____



White: Driller's copy

Blue: Mail to Missouri Geological Survey

Pink: For well owner

WATER WELL RECORD

Page 4

DRILLERS LOG OF WELL

d of rock, color, hard, or soft etc.	From (ft.)	To (ft.)
Clay, little sandstone	360	365
Clay, little sandstone	365	370
Clay, little sandstone	370	375
Clay, little sandstone	375	380
Clay, little sandstone	380	385
Clay, little sandstone	385	390
Clay, little sandstone	390	395
Clay, little sandstone	395	400
Clay, little sandstone	400	405
Clay, little sandstone	405	410
	410	415
	415	420
	420	425
	425	430
	430	435
	435	440
Clay, little sandstone	440	445
Sandstone, little clay	445	450
Clay, sandstone	450	455
Clay, sandstone, silk	455	460
Clay, silt, silk	460	465
Clay, silt, silk	465	470
Clay, silt, silk	470	475
Clay, sandstone, silk	475	480
Clay, sandstone, silk	480	485

Continued

IMPORTANT DATA

Location of Well _____ County _____
(Show location in Section Plat)

_____ 1/4 _____ 1/4 Sec. _____

T _____ N, R _____ E
W

Total depth _____ Elev. _____

Well Owner _____

Address _____

Mileage and direction from nearest town or highway _____

Drilling Contractor _____

Address _____

Date Drilled _____

Method of Drilling _____
(Cable tool, rotary, reverse rotary, etc.)

Casing Schedule _____
(Amount, Size, Setting - New, Used - Steel, Galv., - Gage or Weight)

Screen Data (if any): _____
(Length, Diameter, Slot Size, Setting)

Measured depth to water on completed well (Static Level)
is _____ ft. below _____
(Land Surface, Top of Casing Etc.)

Tested Yield _____ gallons per _____
(Min., Hour)

as determined by _____
(Bailing, Test Pumping, Etc.)

Drawdown _____ ft. after _____ hrs.

pumping at _____ gal. per minute _____

Remarks _____



White: Driller's copy

Blue: Mail to Missouri Geological Survey

Pink: For well owner

WATER WELL RECORD

Page 5

DRILLERS LOG OF WELL

1 of rock, color, hard, or soft etc.

From
(ft.)

To
(ft.)

Clay, sandstone, silk

485

490

Clay, sandstone, silk

490

500

Clay, sandstone, silk

500

505

Clay, sandstone, silk

505

510

Clay, sandstone, silk

510

515

Clay, sandstone, silk

515

520

450-520 thin layers of sandstone

6-7' apart.

IMPORTANT DATA

Location of Well

County

(Show location in Section Plat)

1/4

1/4 Sec.

T

N, R

E

W

Total depth

Elev.

Well Owner

Address

Mileage and direction from nearest town or highway

Drilling Contractor

Address

Date Drilled

Method of Drilling

(Cable tool, rotary, reverse rotary, etc.)

Casing Schedule

(Amount, Size, Setting - New, Used - Steel, Galv., - Gage or Weight)

Screen Data (if any):

(Length, Diameter, Slot Size, Setting)

Measured depth to water on completed well (Static Level)

is _____ ft. below

(Land Surface, Top of Casing Etc.)

Tested Yield

gallons per

(Min., Hour)

as determined by

(Bailing, Test Pumping, Etc.)

Drawdown

ft. after

hrs.

pumping at

gal. per minute

Remarks



Permit No. 1843-2
White River - Water District

Report Of Examination Of Works And/Or Application of Water To Beneficial Use

TO: Chief Engineer, Division of Water Rights, DENR, Foss Bldg., Pierre, SD 57501

I have this day, June 13, 1995 , made a thorough examination of the water use system constructed by City of Martin of P.O. Box 687, Martin SD 57551-0687 holder of Permit No. 1843-2 , bearing the priority of May 10, 1983 authorizing the diversion of 0.40 cu. ft. per second of the waters of groundwater for Municipal purposes, in Bennett County.

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

A. Works used to divert the water:
30 Hp 6 inch submersible pump

B. Works used to transport water to place of use:
1500 feet of 6 inch PVC pipe

C. Works used to apply water to beneficial use:
Water distribution system with 50,000 gal. elevated storage tank and 350,000 gal. ground storage tank

The system is in the following condition GOOD. The point of diversion is located 910 ft. east & 2365 ft. north of the SW corner of Sec. 17-T37N-R37W (NW 1/4 SW 1/4) . The works are capable of diverting and conveying to the place of use 0.40 cu. ft. per second of water which is to be used for Municipal Use . Water has been put to beneficial use to the maximum extent as follows:

The well is connected to the existing City of Martin water distribution system

and the license should be issued for 0.40 cfs.

Applicable permit qualifications have been complied with: XX Yes No

Exceptions to compliance are: Date Report Completed: August 17, 1995



Timothy G. Schaal, P.E.
Natural Resources Engineer III
Water Rights Program

REPORT ON INSPECTION OF PERMIT NO. 1843-2

Other permit(s) associated with the project: #677-2 & #1844-2

DATE OF INSPECTION: June 13, 1995

NAME & ADDRESS OF INSPECTION CONTACT/ Jon Heeffle,

RELATIONSHIP TO PERMIT HOLDER, IF APPLICABLE: Utility Manager, City of Martin

NAME & ADDRESS OF PERMIT HOLDER: City of Martin, P.O. Box 687, 57551-0687

DIVERSION POINT LEGAL LOCATION: 910 ft. east & 2365 ft. north of the SW corner of Section 17-T37N-R37W (NW 1/4 SW 1/4).

WELL INFORMATION:

- 1) Well Drilling Firm: Cullum & Brown
- 2) No. of Wells 1
- 3) Depth(s) feet 520 feet
- 4) Well log is available yes
- 5) Comment:

Casing:

- 1) Diameter inches 8 inch & 6 inch
- 2) Length feet 300 ft.--8 inch (0 to 300) & 110 ft.--6 inch (300 to 410)
- 3) Type steel

Screen:

- 1) Type stainless steel
- 2) Length feet 70 feet (410 to 450 & 465 to 495)
- 3) Static water level feet

Pump:

- 1) Make Submersible
- 2) Model unknown
- 3) Size 6 inch
- 4) Capacity GPM 180 gpm

Motor:

- 1) Make unknown
- 2) Model No. unknown
- 3) Horsepower rating 30 hp

DISTRIBUTION LINES OR CANALS:

- 1) Type buried PVC
- 2) Size 6 inches
- 3) Length 1500 feet

PERMIT QUALIFICATIONS AND REGULATIONS:

- 1) Soil and water permit lands agree with lands being irrigated and lands listed on permit N/A
- 2) Special qualifications to permit being abided by yes
- 3) All structures, wells and lands on map yes
- 4) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period N/A

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
WATER RIGHTS PROGRAM

August 21, 1995

RE: Change in location of diversion point for Water Permit No. 1843-2, City of Martin.

An inspection of Water Permit No. 1843-2, on June 13, 1995, found the diversion point in a location not authorized by the permit. SDCL 46-5-13.1 provides that a point of diversion may be changed or additional points of diversion may be approved without application or publication of a notice of hearing if the additional point of diversion is from the same source of water, no additional water is appropriated and the chief engineer makes a finding that the change does not increase the potential for interference with existing diversions.

Water Permit No. 1843-2 appropriates 0.40 cubic feet of water (cfs) from groundwater (Arikaree formation, Well #4, 520 feet deep) for Municipal Use. The diversion point was to be located in the NW 1/4 SE 1/4 of Section 18-T37N-R37W and the inspection of Water Permit No. 1843-2 found the diversion point located in NW 1/4 SW 1/4 of Section 17-T37N-R37W.

There are four other Arikaree formation wells in the immediate area. Three of the wells are existing City water supply wells and the fourth is for the Markota Golf Course. City well #1 and #2 are covered under Vested Water Right Claim No. 1844-2 and appropriates 0.75 cfs from the 2 wells located in the SW 1/4 SE 1/4 of Section 18-T37N-R37W. City well #3 is 518 feet deep and is covered under Water Right No. 677-2 which appropriates 0.55 cfs from the one well located in the NW 1/4 SW 1/4 of Section 17-T37N-R37W. The Markota well is covered by Water Right 851-2, which appropriate 0.22 cfs from a 520 foot deep well located in the NW 1/4 SW 1/4 Section 17-T37N-R37W to irrigate 30 acre of golf course.

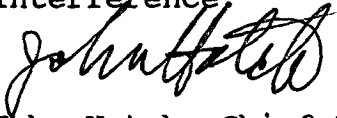
The proposed well location change should not increase the potential for interference with existing diversions. Well #4 has been in existence since 1975 and there has not been any complaints on interference with the Markota well.



Timothy G. Schaal, P.E.
Natural Resources Engineer III

Water Permit #1843-2, Change of location
August 21, 1995
page 2

The Chief Engineer makes a finding that this change in location does not increase the potential for interference with existing diversions. In making this finding "does not increase potential for interference" is interpreted to mean potential for adverse interference.

A handwritten signature in cursive script, appearing to read "John Hatch".

John Hatch, Chief Engineer
Water Right Program

#1843-2
City of Martin

9017
T31N R31W

910

2365

18
19

Approx. Scale
1" = 910'



Timothy L. Schaal
August 17, 1995

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 1843-2

(1) The City of Martin, PO Box 687, Martin SD 57551-0687 made Application No. 1843-2, May 10, 1983 for a water permit to appropriate 0.40 cubic feet of water per second from groundwater (one well), Bennett County, South Dakota for municipal purposes. Permit No. 1843-2, with a priority date of May 10, 1983 was approved July 20, 1983 and issued to the applicant for diversion of water with construction of the described water supply system completed and the application to beneficial use of said water completed.

(2) It is certified that the applicant has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to divert 0.40 cubic feet of water per second for beneficial use. The location of the diversion point is 910 feet east and 2365 feet north of the southwest corner of Section 17-T37N-R37W (NW 1/4 SW 1/4).

(3) The applicant has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use.

(4) Pursuant to South Dakota Water Law 46-5-30.1 the City of Martin, PO Box 687, Martin SD 57551-0687 the holder and/or owner of Water Permit No. 1843-2 is issued a license to appropriate water, the right to use 0.40 cubic feet of water per second from groundwater (one well) with a priority date of May 10, 1983 from the location specified in (2) of this license. The water to be for the purpose of municipal use. This license is subject to any limitations or qualifications listed in Water Permit No. 1843-2 and subject to South Dakota State Law.



JOHN HATCH, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

DEC 18 1995

date





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

August 29, 1995

1843-2

Janet Speidel, Finance Officer
City of Martin
P.O. Box 687
Martin, SD 57551-0687

Dear Ms. Speidel:

The inspection of your water use system and the inspection of the extent of application of water to beneficial use, as developed under Water Permit No. 1843-2, has been completed. Your final water right document, the Water License, can now be issued.

Statutes require that we charge a \$50.00 fee for the inspection and issuance of the Water License. Upon receipt of the \$50.00 fee from you, we will begin processing your Water License.

Please remit fee to:
Department of Environment & Natural Resources
Water Rights Program
523 E. Capitol
Pierre, SD 57501-3181

South Dakota Water Law 46-5-30.1 requires that a permit holder may not divert water until the \$50.00 license fee has been paid. Please contact us if you have any questions.

Sincerely,

Cheryl F. Frost
Secretary
Water Rights Program
(605) 773-3352

NOTE: On check or money order, please specify your permit number. This will insure proper handling of the fee.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

August 29, 1995

1843-2

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(605) 773-3352

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Water Rights Division -DENR
Conversation or File Documentation

NAME OF PERSON OR FILE: City of Martin

ADDRESS: PO Box 687

COUNTY: Bennett

DATE: March 3, 1998

TELEPHONE: 685-6525

RE: Abandonment of Wells No. 1 & 2

The City of Martin has the following 3 permits for 4 wells.

Vested Right Claim No. 1844-2 for Well #1-0.28 cfs, January 1, 1936 &
Well #2-0.47 cfs, January 1, 1946
Water Right No. 677-2 for Well #3-0.55 cfs, April 7, 1961
Water Right No. 1843-2 for Well #4-0.40 cfs, May 10, 1983 .

Total = 1.70 cfs (765 gpm)

On November 19, 1997, I talked to Chuck Gotheridge, the City Forman, about their wells. The City abandoned and plugged Well #1 & #2 in May 1996. The Drinking Water Program reports the City's current pumping capacity at 1.22 cfs (550 gpm).

Vested Right Claim No. 1844-2 should be cancelled; however, the Vested Right priority dates (January 1, 1936 & January 1, 1946) should be transferred to the existing wells along with 0.27 cfs (1.22- 0.95) of diversion rate.



Timothy G. Schaal, P.E.
Natural Resources Engineer III
Water Rights Program

SYSTEM IMPROVEMENTS

List improvements planned for the system: REPLACE MORE LINES, PAINT THE TOWER, AND LOOP MORE LINES

2. Have recommendations and requirements been addressed from last survey? Yes ☐ No ☒
3. General Comments: THE SYSTEM IS WELL MAINTAINED AND OPERATED

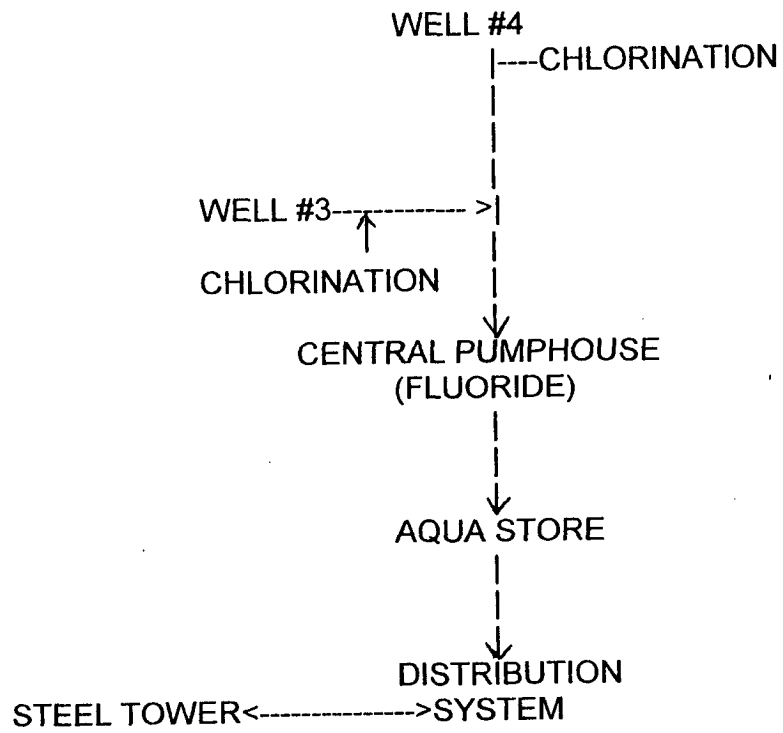
SOURCE INFORMATION

	Source Name	Date Built	Diameter	Depth	Average GPM	Status	Location
1.	WELL #3	1953	12 INCH	500 FEET	350	STDBY*	CITY PARK
2.	WELL #4	1970	8 INCH	500 FEET	200	ACTIVE	CITY PARK
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							

COMMENTS

*WELL #3 IS STANDBY IN THE WINTER UNLESS OTHER WISE NEEDED
 WELLS #1 AND #2 HAVE BEEN DISCONNECTED AND CAPPED. THE WATER SYSTEM HAS A STANDBY
 GENERATOR IN THE CENTRAL PUMPHOUSE

FLOW DIAGRAM



RECEIPT

Division of Water Rights

South Dakota Department of Environment and Natural Resources

414609

Pierre, September 7, 19 95

RECEIVED OF City of Martin, PO Box 687, Martin, SD 57551-0687

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

Fee for Application for Permit No. _____ to Appropriate Water, to construct and to put water to beneficial use _____		
Fee for Application for Permit No. _____ to Appropriate Water, for Future Use _____		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>1843-2</u>	50	00
Fee for Filing Transfer Form _____		
Fee for Filing Extension Request _____		
Fee for _____		

(Any Other Work Provided by Law)	Total	50 00

By John Hatch
Chief Engineer

Well #4

CITY OF MARTIN

1575'E 2250'N

OFFICE OF CITY CLERK
MARTIN, SOUTH DAKOTA

from SE corner S. 18, T37N,
R37W

N

TO 6" MAIN

AMERICAN LEGION POST #240
BASEBALL FIELD

LOCATED IN NORTHEAST CORNER
OF CITY OF MARTIN

20'
36'
WELL HEAD

Clayton C. McCue
City Clerk

Appl & Map # 1843-3

NWSE