

WATER PERMIT NO. 6986-3

Name of Applicant: LaVerne Mennenga

Address: 18804 463rd Ave, Castlewood SD 57223

Phone: 605 873-2850

Amount of Water Claimed: 3.56 cfs

Total Acres: 225 acres

Source of Water Supply: groundwater (3 wells)

Water to be used for: irrigation

County: Hamlin

Type of Waste Disposal System:

Location: 5 miles southeast of Castlewood

PRIORITY

Date Received: 2-21-08

Application/License Fee: \$325

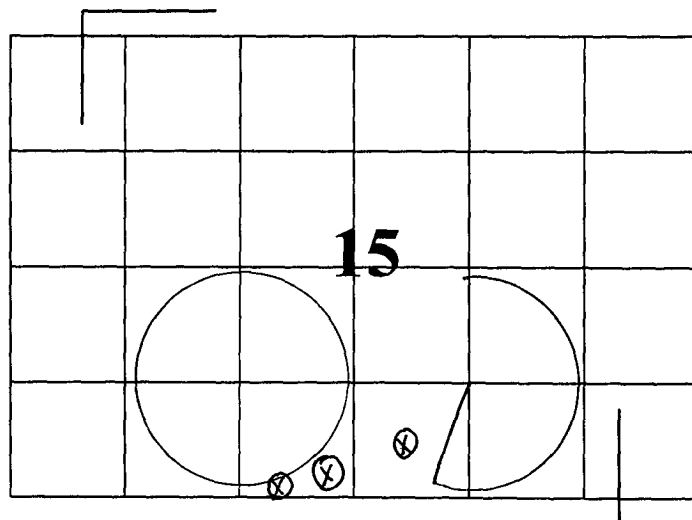
Corrected Application Received: 2-25-08

Period of Annual Use: May 1 – September 30

Remarks:

Diversion Point: SE ¼ SW ¼, SW ¼ SE ¼, Sec 15-T114N-R51W

Land to be Irrigated: SW ¼ S ½ SE ¼, NE ¼ SE ¼ Sec 15-T114N-R51W



Depth of Well: 20 feet deep

Well Driller:

Remarks:

Type of Map: aerial

Prepared by: Jessica, Hamlin Co FSA

Reviewed and the Number Assigned on: 2-25-08

By: Karen Schlaak

Notice of Hearing - date to intervene: _____

FORM 2: Application for irrigation in South Dakota
(type or print)

Mail to: Water Rights Program Joe Foss Building 523 E. Capitol Pierre, SD 57501-3181 (605) 773-3352	No. <u>6986-3</u>	(office use only) Hydrologic Unit <u>10170202</u>
	Basin <u>Sioux River</u>	
	Newspaper <u>Hamlin Co. Herald Ent. P.O. Box 207</u>	
	<u>665-783-3636</u>	<u>Hamlin 57241</u>

RECEIVED
FEB 21 2008
WATER RIGHTS
PROGRAM

Application For Permit To Appropriate Water For Irrigation

Type of Application: ☒ New ☐ Vested Right ☐ Amendment/Correction to Permit No. _____
(Use predates Mar 2, 1955)

Description of amendment/correction: (i.e. change diversion point(s), add diversion point(s), change use, etc.)

- Name of Applicant Laverne Mennenga Phone 605 873-2850
(check one) ☐ Owner ☐ Tenant/lessee
Mailing Address 18804 463rd Ave. Castlewood State SD 57223
(Street, RR, or Box and City) (Zip Code)
- Amount of water claimed 3.56*CFS or 1600 **GPM 1600 ***AF Total Acreage 300225
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable
- Source of water supply 3 wells
- Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County Hamlin
2 wells SE 1/4 of the SW 1/4
1 well SW 1/4 of the SE 1/4 } Sec 15 T114N R51W
- County or counties where water will be used Hamlin
- Annual period during which water is to be used May 1 - Sept 30
- List below each forty acre division, or lot, or fraction thereof and show number of acres to be irrigated in each.
(Attach sheet if more space is needed)

Land Description	Acres	Land Description	Acres
NW 1/4 of the SW 1/4 114-51 Section 15	38	NE 1/4 of the SE 1/4 114-51 Section 15	38
NE 1/4 of the SW 1/4 114-51 Section 15	38	SE 1/4 of the SE 1/4 114-51 Section 15	37
SW 1/4 of the SW 1/4 114-51 Section 15	37	<u>S 1/2</u>	
SE 1/4 of the SW 1/4 114-51 Section 15	37		

- Give a description of the project. (Attach sheet if more space is needed)

STATE OF SOUTH DAKOTA) SS
County of Brookings

Attachments: Attach Form 2A if diversion is from a well or dugout, or if storage of water is proposed. Attach map and any other technical information. (see instructions)

I, Laverne Mennenga, the applicant, certify that I have read this application, have examined the attached map and that the matters stated are true and that I intend, and am able to complete the necessary construction.

Applicant's signature Laverne Mennenga

Subscribed and sworn to before me this 18th day of February 2008

Karen Langland
Notary Public signature

RECEIVED

FEB 25 2008

WATER RIGHTS
PROGRAM

**SOUTH DAKOTA
WATER PERMIT NO. 6986-3**

Date of first receipt of application February 21, 2008.

Date of return to applicant for corrections, amendments or changes February 21, 2008.

Date of receipt of corrected application February 25, 2008.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 6986-3 to Laverne Mennenga, 18804 463rd Ave, Castlewood SD 57223 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 6986-3 appropriates 3.56 cubic feet of water per second (cfs) from three wells to be completed into the Big Sioux: Brookings Aquifer (approximately 20 feet deep) located in SE 1/4 SW 1/4 and the SW 1/4 SE 1/4 Section 15 to irrigate 225 acres located in the SW 1/4, NE 1/4 SE 1/4, S 1/2 SE 1/4 Section 15; all in T114N-R51W.
2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: May 1 – September 30.
3. The date from which applicant may claim right is February 21, 2008.
4. The date of approval of Permit No. 6986-3 is May 12, 2008.
5. One-fifth of the construction is to be completed on or before November 12, 2010.
6. All construction is to be completed on or before May 12, 2013.
7. Water is to be put to beneficial use on or before May 12, 2017.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The wells 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 adequate wells having prior water rights.
2. The wells authorized by Permit No. 6986-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or type of soils so require, Permit No. 6986-3 authorizes a maximum diversion rate of 3.56 cfs for the irrigation of 225 acres with an annual volume not to exceed 2 acre-feet of water per acre per year.
4. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

By: Garland Erbele
Garland Erbele, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

JUN 12 2008
date



(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 20 Depth 20 ft
- b) Casing Type Steel Diameter 12" Thickness 3/8
- c) Screen Type SS Diameter 12" Thickness
- d) Gravel Pack Length of Gravel Pack
- e) Depth to Top of Water Bearing Material 2 ft
- f) Depth to Water (ground surface to water level) 2 ft
- g) Distance to nearest existing domestic well:

On applicants property On property owned by others

2. Wastewater Disposal System Information

- a) Type of System (i.e. septic tank, drain field)
- b) System Capacity (gallons) Year Constructed
- c) Connected to the City of Sanitary System

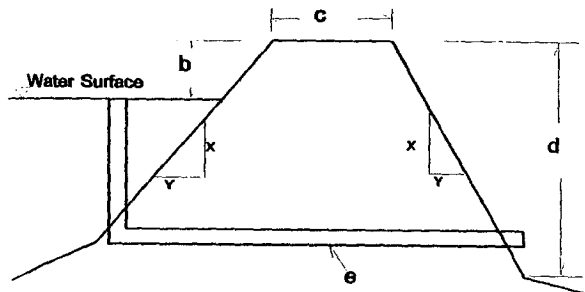
3. Dugout Information

- a) Surface Dimensions Depth
- b) Depth to water (ground surface to water level)

4. Water Storage Dams

If the proposed water use system contains one or more storage dams, please furnish the information requested below for each dam. The locations of the dams need to be shown on the map submitted with the application.

- a) If a private engineering firm or government agency was involved in the design of this dam, please give their name and address:

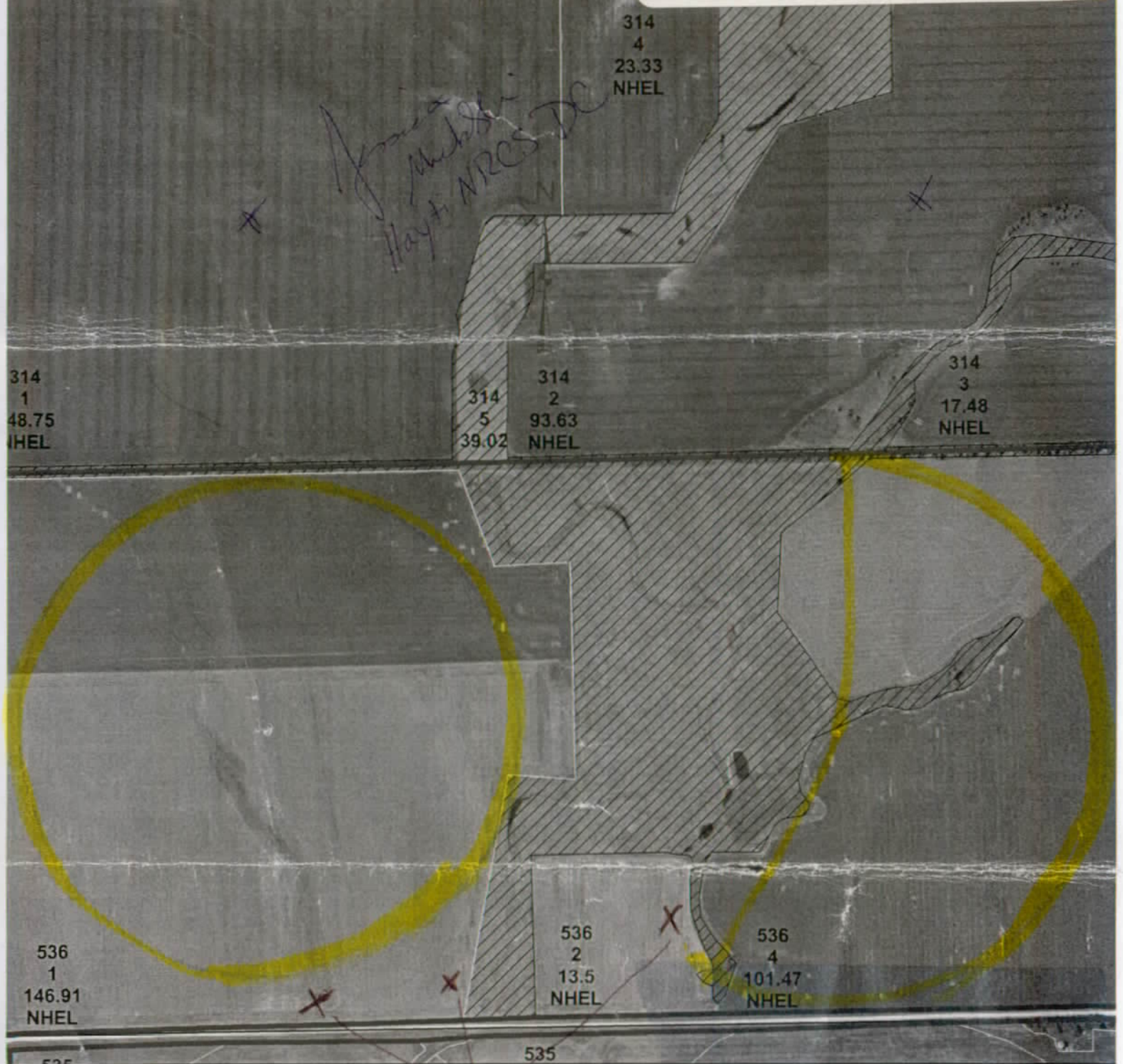


- b) Freeboard
- c) Crest Width
Crest Length
- d) Height
- e) Primary Outlet Capacity
If pipe, diameter
- f) Secondary Spillway Capacity
Spillway Width
- g) X & Y Slope
Upstream
Downstream
- h) Surface Area of Impoundment
- i) Storage Acre Feet
- j) Drainage Area Above Dam Acres

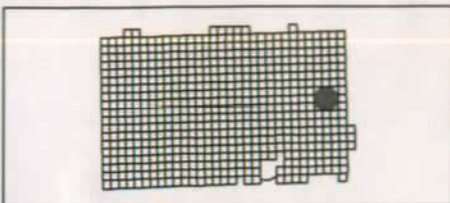
Farm # 2005 GP: LAVERNE L MENNENGA
Tract # 536 Cropland: 261.9
R5 51/2 15-114-51

"NOT TO SCALE"

2006



USDA U.S. Dept. of Agriculture
Farm Service Agency



Hamlin County

15-114N-51W

Legend

- Tract Boundaries
- Section-Township-Range
- CRP
- Easements
- Wetlands
- Common Land Units
- Rangeland

Ph. 352-4587

[illegible]

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date Feb 21, 20 08

RECEIVED OF LaVerne Mennenga, 18804 463rd Ave, Castlewood SD 57223

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

Fee for Application for Permit No. <u>6986-3</u> to Appropriate Water, to construct and to put water to beneficial use	275	00
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>6986-3</u>	50	00
Fee for Filing Transfer Form _____		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	325.00

No.

03009

By

Harland Erbeles

Chief Engineer

125



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

February 21, 2008

Laverne Mennenga
18804 463rd Ave
Castlewood SD 57223

Dear Mr. Mennenga:

Thank you for submitting the *Application for a Permit to Appropriate Water* for irrigation. In order to complete the application the following is required.

- Enclosed is the aerial photo map submitted with the application. On the map, please mark the proposed locations of the three wells and clearly outline the acres to be irrigated.
- Item No. 2 of the application indicates the total acreage as 300 acres. The number of acres listed on Item No. 7 totals 225 acres. Which is the correct number of acres? The amount needs to match what is outlined on the aerial photo map.
- We have received the \$325 application/license fee. The correct fee to irrigate 225 acres is ~~\$300~~ and the fee to irrigate 300 acres is \$350. Based on the number of acres to be irrigated, we will refund or request additional fee payment.

If you have any questions, please contact me.

Sincerely,

Karen Schlaak
Water Rights Program
605 773-3352
karen.schlaak@state.sd.us

enclosure



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
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**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 6986-3, Laverne Mennenga**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Environment and Natural Resources concerning Water Permit Application No. 6986-3, Laverne Mennenga, 18804 463rd Avenue, Castlewood SD 57223.

The Chief Engineer is recommending APPROVAL of Application No. 6986-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. The wells 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 adequate wells having prior water rights.
2. The wells authorized by Permit No. 6986-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or type of soils so require, Permit No. 6986-3 authorizes a maximum diversion rate of 3.56 cfs for the irrigation of 225 acres with an annual volume not to exceed 2 acre-feet of water per acre per year.
4. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Garland Erbele, Chief Engineer
April 14, 2008

REPORT ON WATER PERMIT APPLICATION NO. 6986-3
For LaVern Mennenga
April 8, 2008

Application No. 6986-3 proposes to appropriate 3.56 cfs (1,600 gpm) from three wells approximately 20 feet deep located in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ and the SW $\frac{1}{4}$ SE $\frac{1}{4}$ of section 15 to irrigate 225 acres located in the SW $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$, S $\frac{1}{2}$ SE $\frac{1}{4}$ of section 15; all in T114N R51W. The applicant is requesting a diversion rate greater than the statutory limit of one cfs per 70 acres.

AQUIFER – BIG SIOUX BROOKINGS (BS-B)

The Big Sioux Brookings is a predominantly surficial outwash (sand and gravel) that is largely under water table conditions in Hamlin County. The aquifer underlies 88,500 acres and contains an estimated 331,880 acre-feet of recoverable water in storage in Hamlin County (Hedges, 1982). The aquifer blends into the Big Sioux North aquifer to the north and extends into Brookings County to the south and into Deuel County to the east. Ground water movement appears to be from northwest to southeast in the area of this application (Kume, 1985). Kume mapped the entire aquifer in Hamlin County which he called the Big Sioux aquifer (did not use the management units which are used in this report) and estimated the aquifer to underlie 113,920 acres and contain an estimated 480,000 acre feet of water in storage. If the Big Sioux North management unit estimate by Hedges is included the two different estimates are reasonably close. The aquifer is hydraulically connected to the Big Sioux River and some area lakes and streams. Generally ground water movement is toward these surface water bodies which act as discharge zones for the ground water, however under some hydrologic conditions the surface water does recharge the ground water system. Recharge has been estimated to average about 6.57 inches per year to the aquifer (Koch, 1980).

The applicant provided some basic test well data for this application. The test well log indicates sand and gravel from basically the surface to a total depth of 20 feet. There was a clay layer from 20 to 30 feet below land surface. No static water level or test pumping information was provided with that well test. Another test well for this location in Water Right files but not filed with the application indicates gravel from 3 to 30 feet below and gravel from 33 to 37 feet below land surface. That test well had a static water level of seven feet below land surface and was capable of producing 300 gpm. There appears to be some potential for irrigation water in this area but testing will be required to determine yields and number of wells. Also, the area of this application is mapped as on the edge of the aquifer in the Hamlin County study (Kume, 1986). This information indicates the aquifer does not exist to the north and east of this site.

The Water Rights Program monitors observation wells HN-77E and HN-77F completed into the Big Sioux aquifer and located about two miles south and southwest of this application. Water levels for this well show good response to climatic conditions. Water levels rise during wet periods (recharge) and gradually decline during dry years. Hydrograph for these observation wells are included with this report (Water Rights, 2008).

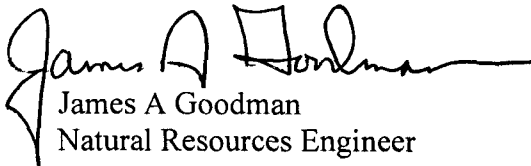
REVIEW OF EXISTING WATER PERMITS/RIGHTS

The nearest existing permitted irrigation well (#1) (Water Right No. 5817-3, two wells, 1.77 cfs, irrigation of 280 acres) is located about 600 feet southwest of the western most of the three proposed wells for this application. The other existing irrigation well (#2) is located about 1,500

feet south of that same proposed well. Drawdown will be created by pumping but it is difficult to determine the significance. Because the aquifer boundary is so near and the fact that the proposed wells will be located near the existing wells testing should be done to determine if the effects could be adverse. Either test or require the applicant move the irrigation wells out to near the center of the irrigated acres. This would minimize any potential impacts. Also recognizing that moving the well to the center of the quarter may not be possible because the aquifer may not exist there.

CONCLUSIONS

1. Water is available from the Big Sioux Brookings aquifer.
2. The aquifer is under water table conditions in this area. Drawdown created by pumping is not expected to be significant. However the wells will be close together and the pumping rate that will be developed is not known. It is anticipated that the developed pumping rate will be less than the amount of water requested. Interference is a concern but until proposed wells are completed the potential for interference cannot be adequately evaluated.
3. The wells authorized by this application must be constructed in accordance with SD Well Construction Standards.
4. The applicant requests a diversion rate greater than one cfs per 70 acres. There is no justification for this request but according to the map this rate would allow two center pivots to operate at the same time. This request is reasonable if the wells can be developed at that capacity. Based upon nearby well data it is unlikely that three wells would produce 3.56 cfs. More likely a rate of 1.78 cfs total from the three wells could be expected. Until testing is completed this rate is an unknown.

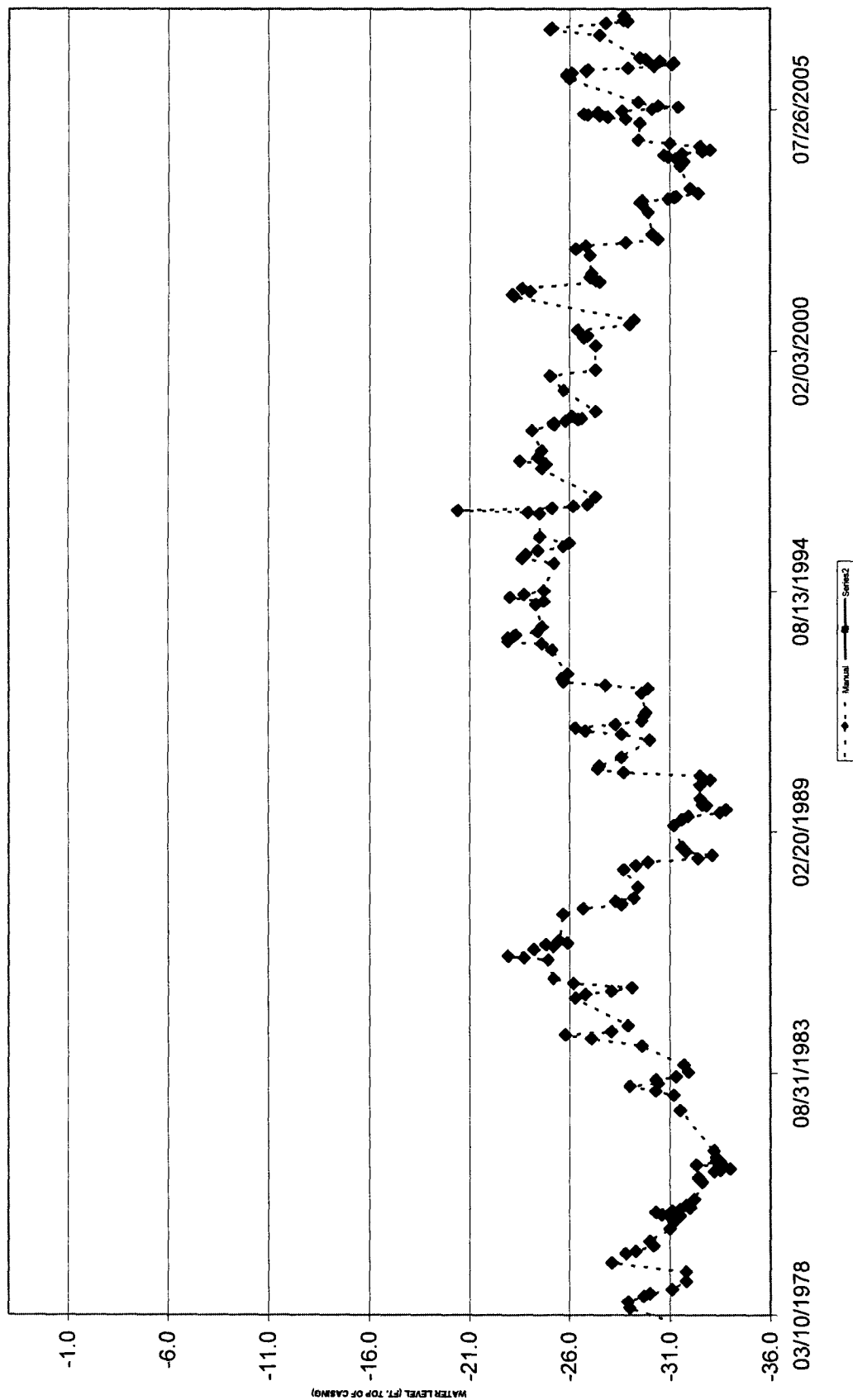


James A Goodman
Natural Resources Engineer

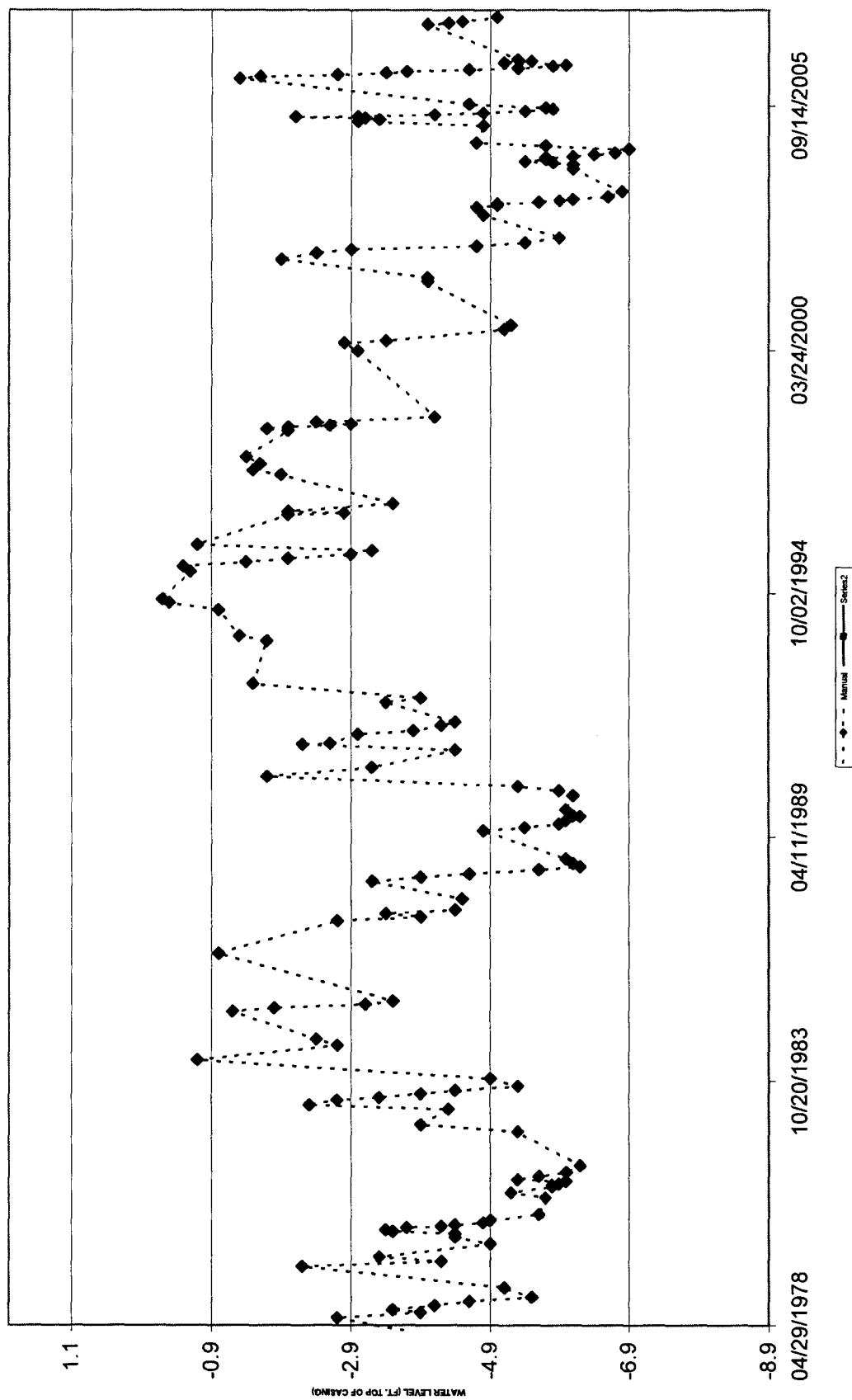
BIBLIOGRAPHY

- Hedges, L.S., and others, 1982, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River South Dakota and Iowa, for US Army Corps of Engineers, SD DENR, SDGS, Vermillion, SD, 57069.
- Koch, N.C., 1980, Appraisal of the Water Resources of the Big Sioux Aquifer, Brookings, Deuel, and Hamlin Counties, South Dakota, Water-Resources Investigation Report 80-100, USGS, Huron, SD, 57350.
- Kume, J., 1985, Water Resources of Deuel and Hamlin Counties, South Dakota, Water-Resources Investigation Report 84-4069, USGS, Huron, SD, 57350.
- Water Rights, 2008, Unpublished Observation Well Data for Hamlin County, SD DENR, DES, Water Rights Program, Pierre, SD, 57501.

**WATER RIGHTS' OBSERVATION WELL
HN-77F**



WATER RIGHTS' OBSERVATION WELL
HN-77E



RECEIVED

MAY - 5 2008

WATER RIGHTS
PROGRAM

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County of Hamlin) SSI, L. Anne Archercertify that the attached printed Notice was
takenfrom the Hamlin County
Skald Enterpriseprinted and published in HaytiCounty of Hamlin andstate of South Dakota. The notice was
published

in the newspaper on the following two dates:

April 23, 2008April 30, 2008Cost of Printing \$ 41.58L. Anne Archer
(Signature)Owner
(Title)4-30-08
(Date Signed)NOTICE OF APPLICATION NO.
6986-3 TO APPROPRIATE WATER

Notice is given that Laverne Mennenga, 18804 463rd Ave. Castlewood SD 57223 has filed an application for a water permit to appropriate 3.56 cubic feet of water per second (cfs) from three wells to be completed into the Big Sioux. Brookings Aquifer (approximately 20 feet deep) located in SE 1/4 SW 1/4 and the SW 1/4 SE 1/4 Section 15 to irrigate 225 acres located in the SW 1/4, NE 1/4 SE 1/4, S 1/2 SE 1/4 Section 15, all in T114N-R51W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on this application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation.

The Chief Engineer's address is: "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by May 12, 2008.

The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel. If legal counsel is obtained, Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to this application.

Steven M. Pirner, Secretary
Dept. of Env. & Natural Resources
(publish april 23 and 30, 2008)



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

April 14, 2008

Hamlin County Herald Enterprise
PO Box 207
Hayti SD 57241

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 6986-3 to Appropriate Water to be published twice. Please publish the first notice on April 23, 2008 with the second publication 7 days later. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

The applicant must verify to you that the notice is to be published, before you make the first publication. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Laverne Mennenga, 18804 463rd Ave, Castlewood SD 57223 (Ph # 605-873-2850).

Please send the Water Rights Program the first publication immediately. The publication is checked for accuracy so any corrections can be made in the second publication. You may use the form below or fax a copy of the first publication. Any fax should be sent to the attention of Karen Schlaak at (605) 773-4068. Publication errors can invalidate the public notice.

After the second publication, **please send us an affidavit or use the enclosed Proof of Publication form.** The applicant pays the cost of publication, but the Water Rights Program records require an affidavit or Proof of Publication. Delays in receiving the affidavit can be costly to the applicant.

Sincerely,


Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

-----CUT HERE-----

No. 6986-3

TO: Eric Gronlund
Water Rights Program
Joe Foss Building
Pierre SD 57501-3181

Date _____

We are in receipt of your letter of April 14, 2008 enclosing Notice to Appropriate Water by Application No. 6986-3 which was first published in our issue of _____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

Name

Newspaper



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

NOTE: TO BE SURE OF PUBLICATION ON
THE CORRECT DATES, CONTACT
THE NEWSPAPER RIGHT AWAY.

April 14, 2008

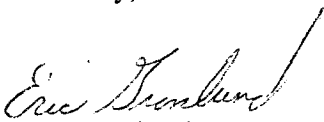
Laverne Mennenga
18804 463rd Ave
Castlewood SD 57223

Dear Mr. Mennenga:

Water Permit Application No. 6986-3 for irrigation use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Publisher of the Hamlin County Herald Enterprise printed at Hayti SD (Ph # 605-783-3636). You will need to contact the newspaper and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspaper to authorize publication of your Notice and to arrange for payment. Early contact with the paper can eliminate delays. Upon receiving authorization, the publisher has been instructed to publish your notice once each week for two consecutive weeks. The newspaper has also been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the application.

Sincerely,


Eric Gronlund
Natural Resources Engineer
(605) 773-3352

enclosures

NOTE: If you plan to contest any part of the Chief Engineer's recommendation, you must file a petition pursuant to the procedures outlined in the attached notice of hearing. The Water Management Board will then consider your concerns during a hearing on the application.

Instruction to Newspaper - Publish first Notice on April 23, 2008 with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF APPLICATION NO. 6986-3 to Appropriate Water

Notice is given that LaVerne Mennenga, 18804 463rd Ave, Castlewood SD 57223 has filed an application for a water permit to appropriate 3.56 cubic feet of water per second (cfs) from three wells to be completed into the Big Sioux: Brookings Aquifer (approximately 20 feet deep) located in SE $\frac{1}{4}$ SW $\frac{1}{4}$ and the SW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 15 to irrigate 225 acres located in the SW $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$, S $\frac{1}{2}$ SE $\frac{1}{4}$ Section 15; all in T114N-R51W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 6986-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on this application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by May 12, 2008.

The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to this application. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

JUN 12 2000

Laverne Mennenga
18804 463rd Ave
Castlewood SD 57223

Dear Mr. Mennenga:

Enclosed is Water Permit No. 6986-3 authorizing construction of your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

Form 10, *Notice of Completion of Works and Application of Water to Beneficial Use*, is enclosed. Please return this completed form after you have finished the system and have put the water to beneficial use. An investigation can then be scheduled so the water license may be issued, thus completing the acquisition of a water right.

An informational sheet ? *Common Water Right Questions?* is also enclosed. This sheet is intended to answer some of the questions associated with obtaining and keeping a water right.

Sincerely,

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

enclosures

6986-3

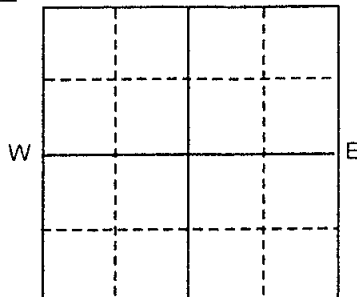
SD EForm - 1621LD V1

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SE 1/4 SW 1/4 Sec 15 Twp 114 Rg 51County Hamlin

North

Please mark well
location with an "X"

Well Completion Date

May 2, 2013

1 Mile

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?

ft. from

(identify source)

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test holes
☒ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:

mud rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

WEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	12.00 IN	1.0 FT	30.0 FT	17.50 IN
LB/FT	12.00 IN	36.0 FT	44.0 FT	17.50 IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Quick Grout	8	Lb/gal	0.0 Ft	20.0 Ft
Red Flint		Lb/gal	20.0 Ft	44.0 Ft

Describe grouting procedure

SCREEN:

☐ Perforated pipe ☒ Manufactured
Diameter 12.00 Inches Length 6.0 FeetMaterial Stainless SteelSlot Size 100 Set From 30.0 Feet to 36.0 Feet

Other information

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☐ Yes, How?

☐ No, Why Not?

 Lab to which water
 quality sample sent for analysis
Well Owner: Lance & Linda MennengaBusiness Name: L & M IncAddress: 18804 463rd AveCity, State, Zip: Castlewood SD 57223

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top Soil Blk	0	2
Clay Ylw	2	7
Sand	7	36
Clay Blu	36	44

STATIC WATER LEVEL 5.0 FEET

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced flow rate _____ GPM

Can well be completely shut in?

WELL TEST DATA:

☐ Pumped Describe:

☐ Bailed

☐ Other

Pumping Level Below Land Surface

_____ Ft. After _____ Hrs. pumped _____ GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

 Production Well #2 200 - 300 GPM
 44 40 31.8N 6 Hrs Air Development
 96 56 15.7W
 Elev 1701

RECEIVED

DEC 23 2013

WATER RIGHTS
PROGRAMThis well was drilled under license # 463
report is true and accurate.Drilling firm: Steffl Drilling & Pump Inc / Kris VanHeuveln

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date:

10-30-13

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 6986-3

I have this day, March 31, 2015, made a thorough examination of the water use system constructed by Laverne Mennenga, 18804 463rd Ave, Castlewood SD 57223 of Permit No. 6986-3, bearing the priority of February 21, 2008 authorizing the diversion of 3.56 cu. ft. per second of the waters of Big Sioux Brookings aquifer for irrigation purposes, in Hamlin County.

Inspection contact & relationship to permit holder, if applicable: **Lavern Mennenga**

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Steffl Drilling
- 2) No. of Wells 2
- 3) Depth(s) 36 & 34 feet
- 4) Well logs are available Yes

Screen:

- 1) Type Stainless steel
- 2) Length 6 & 10 feet
- 3) Static water level 5 & 10 feet

Casing:

- 1) Diameter both 12 inches
- 2) Length 30 & 24 feet
- 3) Type Plastic

Motor/Pump:

- 1) Make Both submersible
- 2) Model unknown
- 3) Capacity 200 & 400 GPM

B. Works used to transport water to place of use:

- 1) Type PVC
- 2) Size 8 inches
- 3) Length 1,800 feet

C. Works used to apply water to beneficial use:

Center pivot:

- 1) Make Valley
- 2) Number of towers 6
- 3) End gun Yes
- 4) Capacity 600 GPM

Chemigation Equipment:

- 1) Does chemigate No

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by Yes
- 2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period Yes
List any extended period of nonuse: none
- 3) Exceptions to compliance are: none

E. Condition and Location:

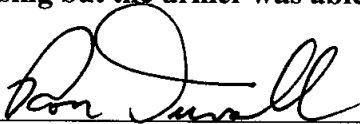
1. The system is in good condition with the point(s) of diversion located as follows: North well – 435 feet N and 390 feet W (lat 44.67545, long -96.93764); South well – 145 feet N and 550 feet W (lat 44.67463, long -96.93827); both from the S1/4 corner of section 15-T114N-R51W. Both wells are in the SE1/4 SW1/4 section 15.
2. The works are capable of diverting and conveying to the place of use 1.34 cu. ft. per second of water which is to be used for irrigation. Water has been put to beneficial use to the maximum extent as follows:
All in section 15-T114N-R51W:

<u>NE1/4 SW1/4</u>	<u>31 acres</u>	<u>SW1/4 SW1/4</u>	<u>29 acres</u>
<u>NW1/4 SW1/4</u>	<u>32 acres</u>	<u>SE1/4 SW1/4</u>	<u>28 acres</u>

comprising a total of 120 acres of land and the license should be issued for 1.34 cfs.
3. All structures, wells and lands on map Yes

F. Comments or other permit(s) associated with the project:

Only the SW1/4 was developed due to lack of sufficient well capacity. One well completion report was missing but the driller was able to provide a copy of the other well log.



Ron Duvall
Water Rights Permitting Administrator
DENR, Water Rights Program

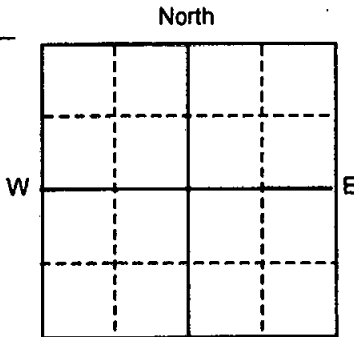
Date report completed: June 7, 2016

6986-3

SD EForm - 1621LD V1

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SE 1/4 SW 1/4 Sec 15 Twp 114 Rg 51County HamlinPlease mark well
location with an 'X'

Well Completion Date

February 28, 2013

1 Mile

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?
ft. from _____ (identify source)

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test holes
☒ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:

mud rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe _____

WEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	12.00 IN	2.0 FT	24.0 FT	18.00 IN
LB/FT	IN	FT	FT	IN
LB/FT	12.00 IN	34.0 FT	44.0 FT	18.00 IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Quick Grout	15	Lb/gal	0.0 Ft	14.0 Ft
Red Flint	30	Lb/gal	14.0 Ft	44.0 Ft

Describe grouting procedure
Tremmy

SCREEN:

☐ Perforated pipe ☒ Manufactured
Diameter 12.00 InchesLength 10.0 FeetMaterial stainless steelSlot Size 100 Set From 24.0 Feet to 34.0 Feet

Other information _____

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material? _____

Describe packer(s) and location _____

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? granular
☐ No, Why Not? _____

Lab to which water

sample sent for analysis _____

Well Owner: Lance & Linda MennengaBusiness Name: L & M IncAddress: 18804 463rd AVCity, State, Zip: Castlewood SD 57223

WELL LOG:

			DEPTH	
FORMATION			FROM	TO
top soil	blk	M	0	2
clay	tan	M	2	5
gravel	tan/white	200slt	5	34
clay	gray	M	34	44

STATIC WATER LEVEL 10.0 FEET

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced flow rate _____ GPM

Can well be completely shut in?

WELL TEST DATA:

☒ Pumped Describe: SUBMERSIBLE
☐ Bailed

☐ Other

Pumping Level Below Land Surface

23'1" Ft. After 6 Hrs. pumped 425 GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

Prod Well # 1

44 40' 28.6"N

96 56' 18.0"W

Elev 1693

This well was drilled under license # 463 and this report is true and accurate.Drilling firm: Steffl Drilling & Pump Inc US 15 Van Horn SD

Signature of License Representative: _____

Signature of Well Owner or Equitable Property Holder: _____

RECEIVED

Date: _____

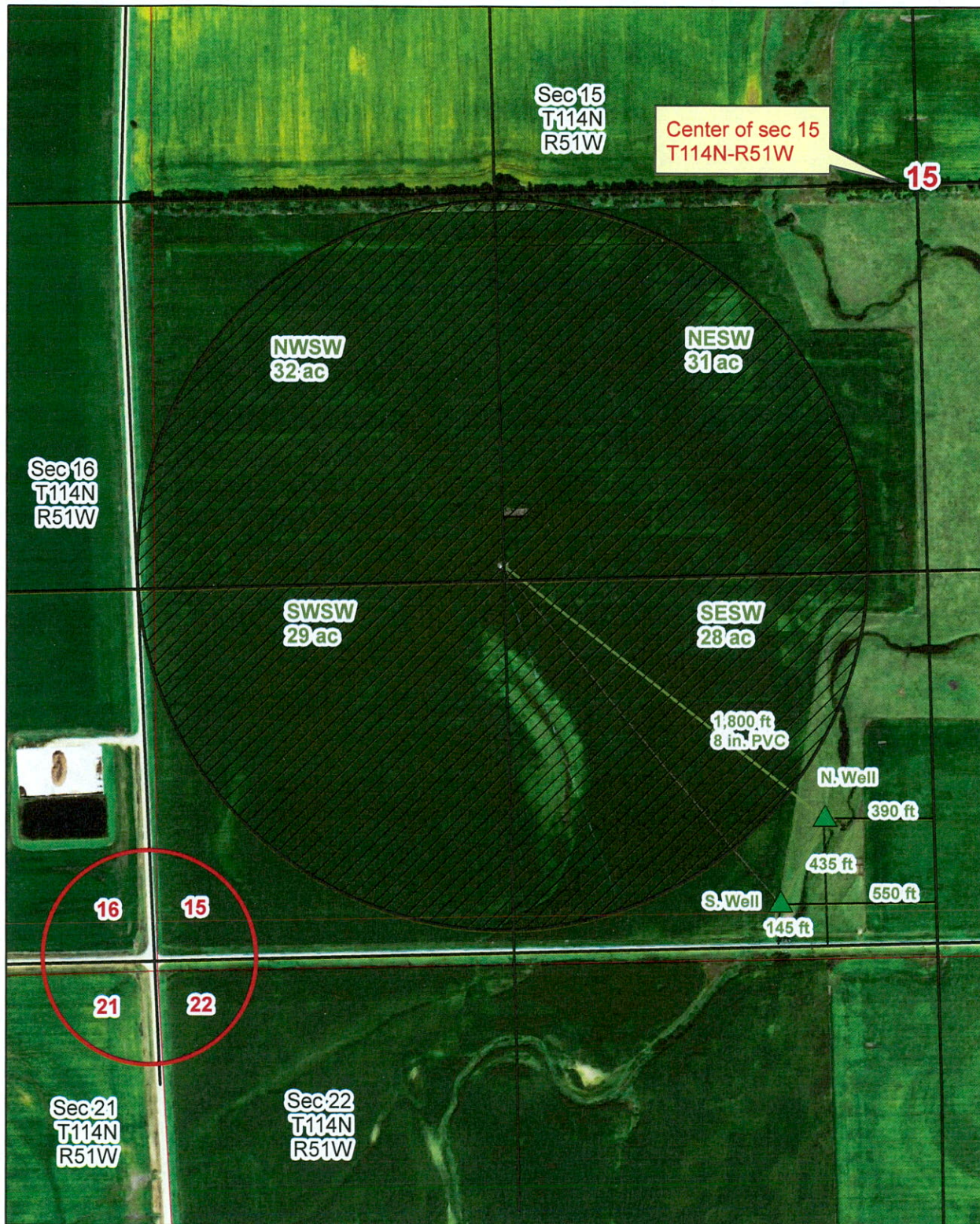
JUN 07 2010

WATER RIGHTS
PROGRAM

Scale: 1 inch = 533 feet

750

Feet



South Dakota
Department of Environment
& Natural Resources
Water Rights

Completed by:

Ron Duvall

Ron Duvall, W.R. Permitting Administrator
SD DENR, Water Rights Program

Diversion point(s) located using Garmin eTrex 10 GPS

Date: June 6, 2016

Water Right No. 6986-3

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 6986-3

(1) Laverne Mennenga, 18804 463rd Ave., Castlewood SD 57223 made Application No. 6986-3, February 21, 2008 for a water permit to divert 3.56 cubic feet of water per second (cfs) from ground water, three wells (Big Sioux Brookings Aquifer), Hamlin County, South Dakota for irrigation purposes. Permit No. 6986-3, with a priority date of February 21, 2008 was approved May 12, 2008 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before May 12, 2013 and for the application to beneficial use of said water on or before May 12, 2017.

(2) It is certified that the permit holder 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 1.34 cubic feet of water per second for beneficial use. The location of the diversion points are:

- north well: 435 feet N and 390 feet W of the S $\frac{1}{4}$ corner of Section 15, T114N, R51W (SE $\frac{1}{4}$ SW $\frac{1}{4}$);
- south well: 145 feet N and 550 feet W of the S $\frac{1}{4}$ corner of Section 15, T114N, R51W (SE $\frac{1}{4}$ SW $\frac{1}{4}$)

(3) The permit holder has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use to irrigate the following land:

T114N, R51W Section 15	NE $\frac{1}{4}$ SW $\frac{1}{4}$	31 acres
	NW $\frac{1}{4}$ SW $\frac{1}{4}$	32 acres
	SW $\frac{1}{4}$ SW $\frac{1}{4}$	29 acres
	SE $\frac{1}{4}$ SW $\frac{1}{4}$	28 acres
	Total	120 acres

(4) Pursuant to South Dakota Water Law 46-5-30.1 Laverne Mennenga, 18804 463rd Ave., Castlewood SD 57223 the holder and/or owner of Water Right No. 6986-3 is issued a license to appropriate water, the right to use 1.34 cubic feet of water per second from ground water, two wells (Big Sioux Brookings Aquifer) with a priority date of February 21, 2008 from the locations specified in (2) of this license for irrigation purposes.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 6986-3 and subject to the following qualifications:

The wells 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 adequate wells having prior water rights.

- The wells authorized by Permit No. 6986-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with the Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28. ***Only two of the permitted wells were drilled.***

continued

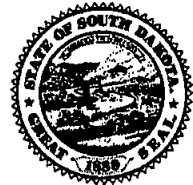
- Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or type of soils so require, Permit No. 6986-3 authorizes a maximum diversion rate of 3.56 cfs for the irrigation of 225 acres with an annual volume not to exceed 2 acre feet of water per acre per year. *The inspection of the water use system found only the SW ¼ was developed due to lack of sufficient water supply. The water license is limited to the developed acreage and diversion rate of 120 acres and 1.34 cfs.*
- This Permit is approved subject to the irrigation water use questionnaire being submitted each year.



Jeanne Goodman, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

JUN 29 2016

date





DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
<http://denr.sd.gov>

JUN 29 2016

6986-3

Laverne Mennenga
18804 463rd Ave
Castlewood SD 57223

Dear Mr. Mennenga:

Enclosed is Water License No. 6986-3. This is the final water right document completing your process of obtaining a Water Right. Included with your license is a map prepared by the staff engineer who conducted the field investigation.

For your information SDCL 46-6-27 requires that if the owner of an existing well, such as the well authorized by Water Right No. 6986-3, constructs a replacement well and does not plan to use the old well, the old well is considered abandoned and must be plugged. Also, any well that is being used or is not considered abandoned must be valved and controlled, if flowing, or sealed and capped so that no leaking occurs either underground or at the surface.

As long as you use the water beneficially, as stated in the Water License, the State Water Laws provide that you have a continuing right to use the water. If you have any questions, please contact our office.

Sincerely,

Jeanne Goodman, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures