

WATER PERMIT NO. 7189-3

Name of Applicant: **Cody Christensen**

Address: **88005 Hwy 57, Hartington NE 68739**

Phone: **402 254-6809**

Amount of Water Claimed: **0.78 cfs**

Total Acres: **40**

Source of Water Supply: **groundwater (one well)**

Water to be used for: **irrigation**

County: **Yankton**

Type of Waste Disposal System:

Location: **4 miles south of Gayville**

PRIORITY

Date Received: **3-22-10**

Application/License Fee: **\$700**

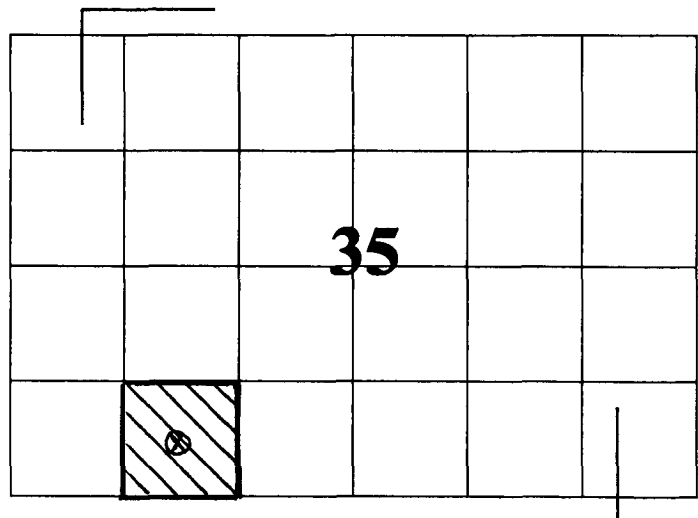
Corrected Application Received:

Period of Annual Use: **April 1 – Sept 30**

Remarks: **Applicant is requesting a diversion rate greater than statutory limit of 1 cfs per 70 acres.**

Diversion Point: **SW ¼ SW ¼ Sec 35-T93N-R54W**

Land to be Irrigated: **SW ¼ SW ¼ Sec 35-T93N-R54W**



Depth of Well: **100 feet deep**

Well Driller: **Christensen Well & Irrigation Inc.**

Remarks:

Type of Map: **aerial**

Prepared by: **Barb Sudbeck, FSA**

Reviewed and the Number Assigned on: **3-22-10**

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

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

Mail to:
PMB 2020
DENR - Water Rights
523 E Capitol Ave
Pierre, SD 57501-3182
ph. (605) 773-3352

No. 7189-3 (office use only)
Hydrologic Unit 10170101
Basin Vermillion River
Newspaper Press & Dakotan PO Box 56
605-665-2811 Yankton 57028

RECEIVED
MAR 22 2010
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.)

1. Name of Applicant Cody Christensen Phone 402 254 0800
(check one) ☒ Owner ☐ Tenant/lessee
Mailing Address 88005 HWY 57 Hartington NE 68739
(Address) (City) (State) (Zip Code)
2. Amount of water claimed 0.78 *CFS or 350 **GPM ***AF Total Acreage 40
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)
3. Source of water supply irrigation well
4. Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County Yankton
SW 1/4 SW 1/4 of section 35, 93-54 Garville Twp.
5. County or counties where water will be used Yankton
6. Annual period during which water is to be used April 1 - Sept. 30
7. 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
SW 1/4, SW 1/4 of section 35, 93-54	40		

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

Drill an irrigation well and put a center pivot on.

Requesting diversion rate greater than 1cfs/70acres

STATE OF SOUTH DAKOTA)
County of Yankton) SS

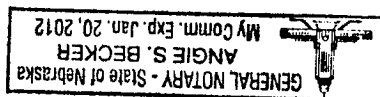
Attachments: Attach Form 2A if diversion is from a well or dugout, or if storage of water is proposed. Also, attach map and any other technical information. (see instructions)

I, Cody Christensen, 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 Cody W Christensen

Subscribed and sworn to before me this 17th day of March 20 10

Angie S. Becker
Notary Public signature



SOUTH DAKOTA
WATER PERMIT NO. 7189-3

Date of first receipt of application March 22, 2010.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7189-3 to Cody Christensen, 88005 Hwy 57, Hartington NE 68739 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. 7189-3 appropriates 0.78 cubic feet of water per second (cfs) from one well to be completed into the Missouri:Elk Point Aquifer (approximately 100 feet deep) located in SW 1/4 SW 1/4 Section 35 to irrigate 40 acres located in the SW 1/4 SW 1/4 Section 35; all in T93N-R54W.
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: April 1 – September 30.
3. The date from which applicant may claim right is March 22, 2010.
4. The date of approval of Permit No. 7189-3 is May 3, 2010.
5. One-fifth of the construction is to be completed on or before November 3, 2012.
6. All construction is to be completed on or before May 3, 2015.
7. Water is to be put to beneficial use on or before May 3, 2019.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

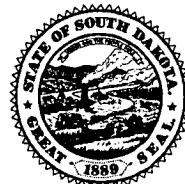
QUALIFICATIONS

1. The well approved under Permit No. 7189-3 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 well authorized by Permit No. 7189-3 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 requires, Permit No. 7189-3 authorizes a maximum diversion rate of 0.78 cfs for the irrigation of 40 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

JUL 15 2010
date



Supplemental Information

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 28" Depth 100'
- b) Casing Type PVC Diameter 16" Thickness .500
- c) Screen Type PVC Diameter 16" Thickness .500
- d) Gravel Pack Round Gravel Length of Gravel Pack 80'
- e) Depth to Top of Water Bearing Material 20'
- f) Depth to Water (ground surface to water level) 20'
- g) Distance to nearest existing domestic well:
- On applicant's property _____ On property owned by others 1600'

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

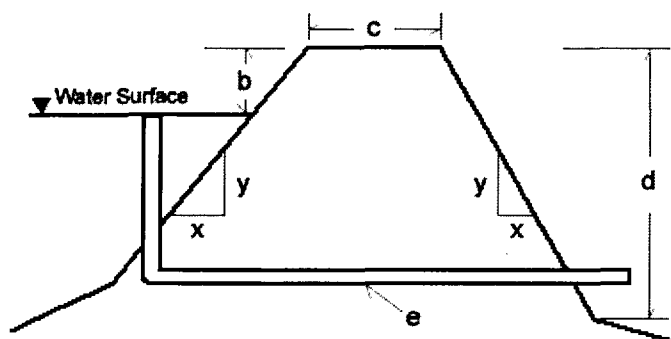
3. Dugout Information

- 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 (e.g. 3 to 1 is a typical slope)
Upstream _____
Downstream _____
- h) Surface Area of Impoundment _____
- i) Storage _____ Acre Feet
- j) Drainage Area Above Dam _____ Acres

**88005 Hwy. 57
Hartington, NE 68739
Office 402-254-6809**

x	

OWNER Lee Carson

ADDRESS 1

STATE DATE 3-16 20 10

TEST HOLE ☐ FARM WELL ☐ IRRIGATION ☐

Quarter *SW*

Section 35

Township 931

Range 546

County 2nd

FT	FT	
0	28	top of silty clay
28	55	med sand
55	95	med sand + gravel
95	100	shale

SD license # 444

Coly W. ~~Antony~~

RECEIVED
MAR 22 2010
WATER RIGHTS
PROGRAM

RECEIVED
MAR 22 2010
WATER RIGHTS
PROGRAM

SD license # 444

Col W ~~Antony~~

STATIC WATER LEVEL	at	20'
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PUMPING WATER LEVEL

SCREEN LENGTH	

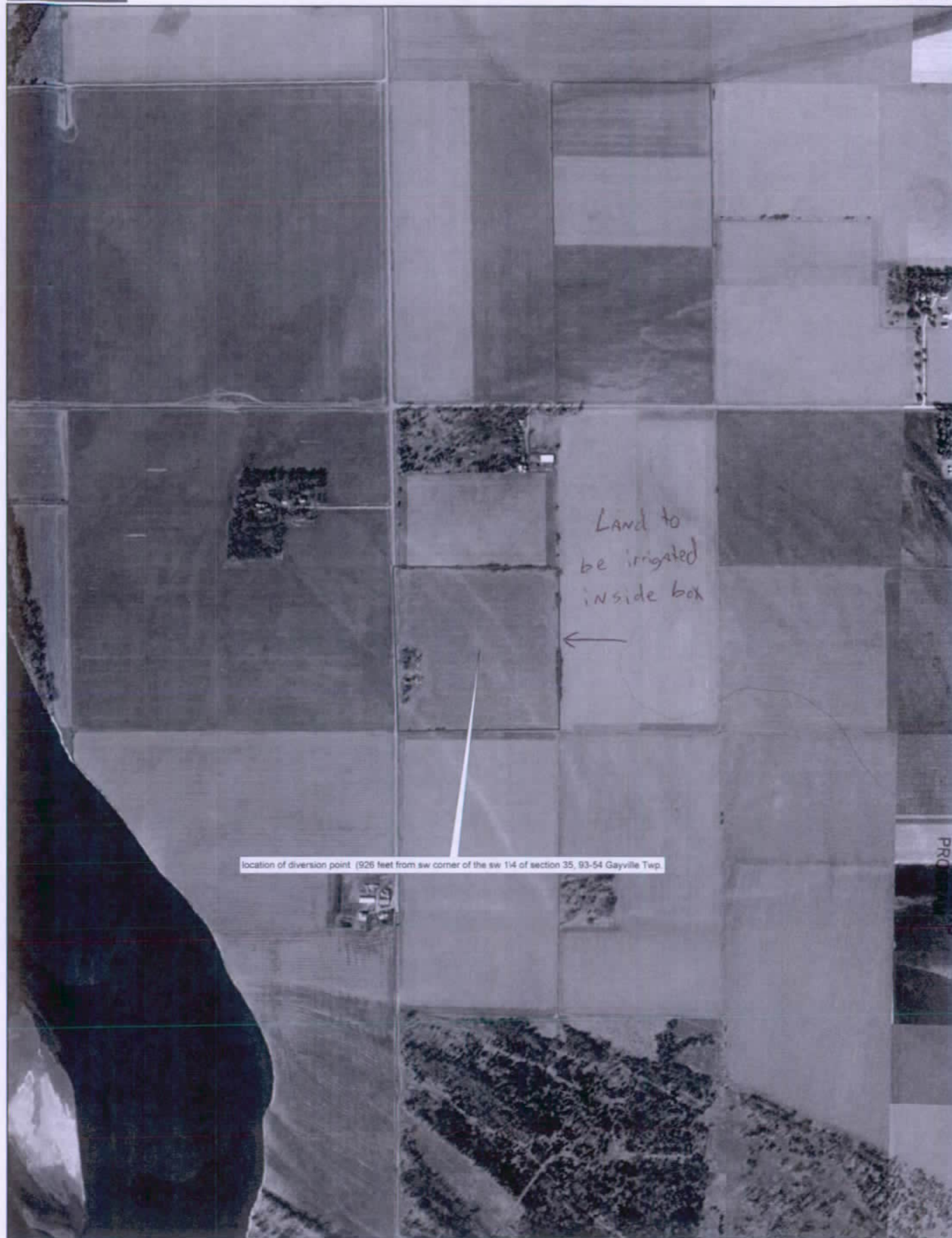
SLOT SIZE	
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TOTAL DEPTH	100
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SW 1/4, SW 1/4, of Section 35, 93-54 Gayville Twp. Yankton County

DeLORME

XMap® 4.5



location of diversion point (926 feet from sw corner of the sw 1/4 of section 35, 93-54 Gayville Twp.)

RECEIVED
MAR 22 2010
WATER RIGHTS
PROJECT

Data use subject to license.
© 2004 DeLorme, XMap® 4.5.
www.delorme.com

Barb Sudbeck
Cedar Co FSA.

TN
MIN (0.0°E)

Scale 1 : 12,800
1" = 1,066.7 ft
Data Zoom 14-0

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 3/22, 20 10

RECEIVED OF Christensen Well & Irrigation 88005 Hwy 57 Hartington NE 68739

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

Fee for Application for Permit No. <u>7189-3</u> to Appropriate Water, to construct and to put water to beneficial use	500	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>7189-3</u>	200	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	700 00

No. 04512

By [Signature]
Chief Engineer



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 7189-3, Cody Christensen**

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. 7189-3, Cody Christensen, 88005 Hwy 57, Hartington NE 68739.

The Chief Engineer is recommending APPROVAL of Application No. 7189-3 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 well approved under Permit No. 7189-3 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 well authorized by Permit No. 7189-3 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 requires, Permit No. 7189-3 authorizes a maximum diversion rate of 0.78 cfs for the irrigation of 40 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 7, 2010

**Report on Water Permit Application No. 7189-3
for Cody Christensen
March 22, 2010**

Application No. 7189-3 proposes to appropriate 350 gallons per minute (0.78 cfs) from one well approximately 100 feet deep located in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 35 to irrigate 40 acres located in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 35 in T93N R54W in Yankton County. The annual period during which water will be used is April 1 through September 30.

AQUIFER: Missouri Elk Point

This report will address the availability of unappropriated water from the Elk Point management unit of the Missouri aquifer.

WATER AVAILABILITY

Aquifer Characteristics:

The Missouri Elk Point aquifer is an alluvium mantled outwash (sand and gravel) that is under predominantly water table conditions in the area of this application. The aquifer underlies 45,000 acres and contains an estimated 675,000 acre-feet of recoverable water in storage in Yankton County (Hedges, 1982). The aquifer is hydraulically connected to the Lower James Missouri aquifer to the north, the Missouri and James Rivers nearby, and extends into Clay County to the east. Groundwater movement is likely from the northwest to the southeast across Yankton County and locally toward the Missouri River.

The aquifer is prolific in this area. Well yields can be expected to range from 500 to 1,000 gallons per minute and this area should have about 100 feet of saturated thickness in the aquifer (Bugliosi, 1986).

Observation Well Data:

The Water Rights Program monitors two observation wells, CL-80B and YA-80KA, located within five and a half miles of this application location. Water levels for these wells show good response to climatic conditions, that is, rising water levels during wet years (recharge) and gradually declining water levels during dry years due to natural discharge and to pumping. The water level record indicates that the aquifer is capable of sustaining additional withdrawals (Water Rights, 2010).

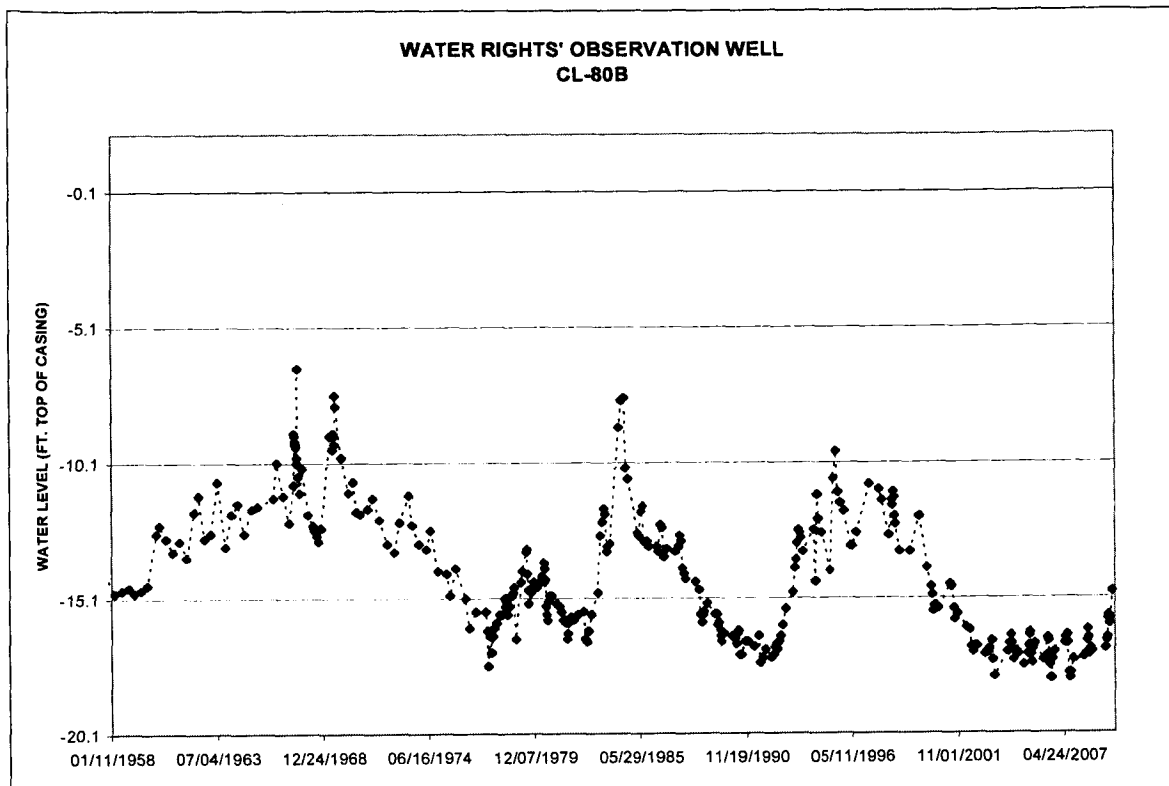


Figure 1. Hydrograph for Water Rights Observation Well CL-80B, completed into the Missouri Elk Point Aquifer within five and a half miles of 7189-3.

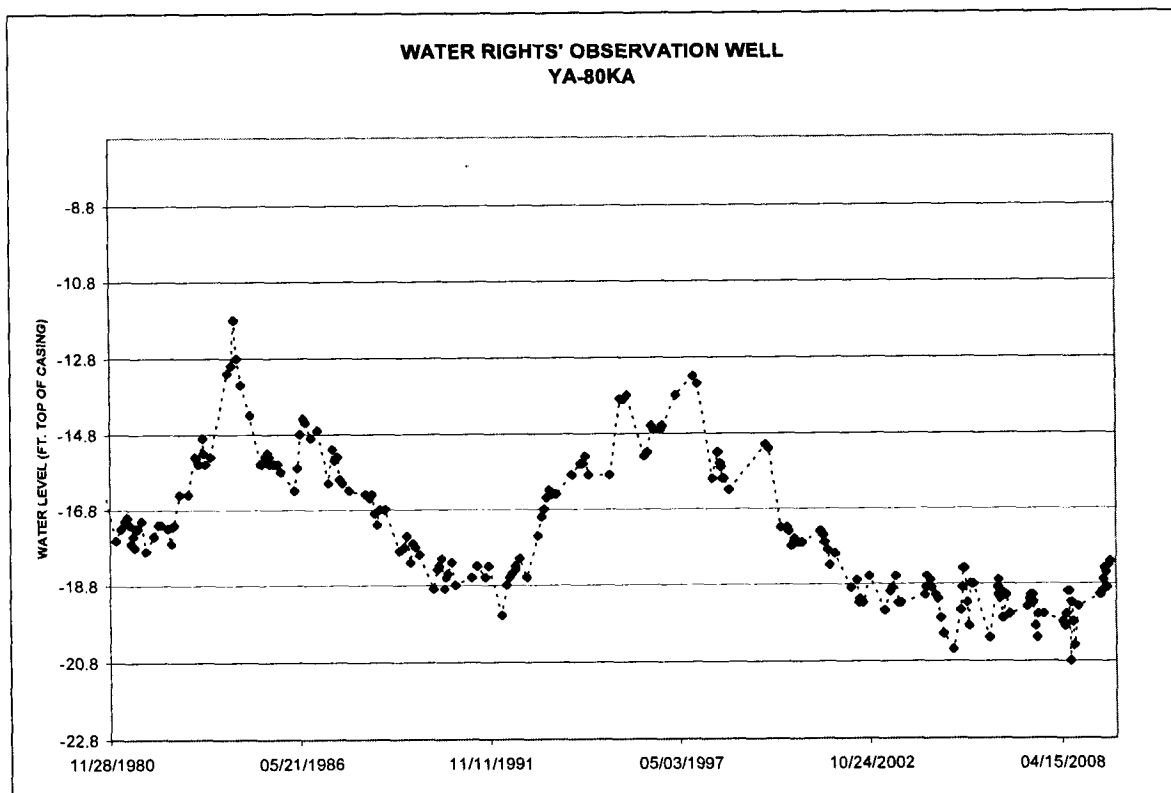


Figure 2. Hydrograph for Water Rights Observation Well YA-80KA, completed into the Missouri Elk Point Aquifer less than one mile from 7189-3.

In general, the hydrographs show that over the period of record, withdrawals have not exceeded recharge.

Review of Existing Water Permits/Rights/Water Use:

Records of irrigation use from the Missouri aquifer, which includes the Peoria management unit, the Pierre management unit, the Greenwood management unit and the Elk Point management unit date back to 1979. The Elk Point management unit typically includes the majority of irrigators; irrigators in the other management units typically total less than ten.

Table 1 shows the number of appropriations, the total amount of water appropriated, and the reported amount of water pumped for each year. The average number of appropriations is over 304, with the average annual appropriation being nearly 128,000 acre-feet and the average annual pumpage reported at over 17,000 acre-feet.

IRRIGATION USE (ac-ft/yr) M:EP			
Year	Number of Appropriations	Appropriation (ac-ft/yr)	Pumpage Reported (ac-ft/yr)
2008	396	151130.4	16261.88
2007	368	140746.6	31052.03
2006	355	137411.6	28874.29
2005	337	130966.6	24176.62
2004	323	127635.8	24515.85
2003	315	126059.8	27161.56
2002	316	126235.8	24105.36
2001	314	126217.4	19451.93
2000	310	125532.2	27070.99
1999	308	125225.6	14748.02
1998	313	127862.6	11127.24
1997	305	126518.2	17182
1996	296	124606.2	9412.78
1995	292	121644.25	18320.24
1994	297	123656.75	10323.94
1993	299	125656.3	1475.2
1992	296	125336.68	1881.95
1991	301	126551.68	18798.6
1990	299	128458.33	19694.5
1989	294	126847.33	25941.9
1988	283	124014.13	28756.35
1987	282	124104.33	13439.7
1986	288	125842.47	6451.6
1985	284	125068.47	13983.5
1984	283	126743.35	9194.3
1983	274	121895.73	10834.04
1982	272	123559.28	18822.35
1981	302	136318	14233
1980	267	126362	15205
1979	265	124828	10377
AVERAGE	304.47	127767.86	17095.79
MAXIMUM	396	151130.4	31052.03
MINIMUM	265	121644.25	1475.2

Table 1. Irrigation usage from the Missouri aquifer (Water Rights, 1979-2008).

There are six existing water permits/rights located within two miles of this application. The nearest water permit, 6979-3, is located just over half a mile north-northeast of this permit application. Water levels do fluctuate as a result of area pumping but this does not affect the availability of water from the aquifer.

Conclusions:

1. Water is available from the Missouri Elk Point aquifer.
2. The aquifer appears to be under water table conditions at this location. Drawdown will result from pumping. Interference is not expected to be a problem.
3. If the well covered by this Permit depletes the domestic supplies or interferes with prior water rights, restrictions or other arrangements may be required to protect these water supplies.
4. This well must be constructed in accordance with SD Well Construction Standards.



Hayes Haas
Natural Resources Engineer

Bibliography:

Bugliosi, E.F., 1986, Water Resources of Yankton County, South Dakota, Water Resources Investigations Report 84-4241, USGS, Huron, SD 57350

Hedges, L.S. et al, 1982, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, for the U.S. Army Corps of Engineers, SD DENR, SDGS, Vermillion, SD 57069

Water Rights, 2010, Unpublished Observation Well Records for Yankton County, SD DENR, Water Rights Program, Pierre, SD, 57501

RECEIVED

APR 22 2010

WATER RIGHTS
PROGRAM

4+14+21
NOTICE OF
APPLICATION NO.
7189-3
to Appropriate Water

AFFIDAVIT OF PUBLICATION

YANKTON DAILY PRESS AND DAKOTAN

Department of Environment and Natural Resources
PMB 2020
Joe Foss Building
523 East Capitol
Pierre, SD 57501-3182

STATE OF SOUTH DAKOTA
COUNTY OF YANKTON

KELLY HERTZ BEING FIRST DULY SWORN ON OATH DEPOSES
AND SAYS THAT HE IS THE MANAGING EDITOR OF THE YANKTON
PRINTING COMPANY, A CORPORATION, THE PRINTER AND THE
PUBLISHER OF THE YANKTON DAILY PRESS AND DAKOTAN, A LEGAL
DAILY NEWSPAPER PRINTED AND PUBLISHED IN THE CITY OF YANKTON,
SAID COUNTY AND STATE, AND ONE OF THE OFFICIAL NEWSPAPERS OF
THE SAID COUNTY OF FACTS STATED IN THIS AFFIDAVIT; THAT THE
ANNEXED Notice of Application No 7189-3

TAKEN FROM THE PAPER IN WHICH IT WAS PUBLISHED IN THE
NEWSPAPER ON THE 21st DAY OF April 2010
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID NOTICE TO WIT \$51.54 ENSURES TO THE
BENEFITS OF THE PUBLISHER OF SAID NEWSPAPER AND THAT NO
AGREEMENT AND UNDERSTANDING FOR THE DIVISION THEREOF HAS
BEEN MADE WITH ANY OTHER PERSON, AND THAT NO PART THEREOF
HAS BEEN AGREED TO BE PAID TO ANY PERSON WHOMSOEVER.

PUBLISHED ON: 4/14/2010 & 4/21/2010

FILED ON: 4/21/2010

SUBSCRIBED AND SWORN TO BEFORE ME THIS 21st DAY OF April

2010

NOTARY PUBLIC, SOUTH DAKOTA
MY COMMISSION EXPIRES 8/19/2015

OK
Notice is given that Cody Christensen, 88005 Hwy 57, Hartington NE 68739 has filed an application for a water permit to appropriate 0.78 cubic feet of water per second (cfs) from one well to be completed into the Missouri:Elk Point Aquifer (approximately 100 feet deep) located in SW 1/4 SW 1/4 Section 35 to irrigate 40 acres located in the SW 1/4 SW 1/4 Section 35; all in T93N-R54W. 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. 7189-3 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 3, 2010.

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. Pinner, Secretary, Department of Environment and Natural Resources.

Published twice at the total approximate cost of \$51.54

lished copy: \$0.0030



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

April 7, 2010

Yankton Press & Dakotan
PO Box 56
Yankton SD 57078

ATTENTION: Legal Public Notice

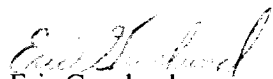
Enclosed is a Notice on Application No. 7189-3 to Appropriate Water to be published twice. Please publish the first notice on April 14, 2010 with the second publication 7 days later. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

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 Cody Christensen, 88005 Hwy 57, Hartington NE 68739 (Ph # 402-254-6809).

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. 7189-3

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

Date _____

We are in receipt of your letter of April 7, 2010 enclosing Notice to Appropriate Water by Application No. 7189-3 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
denr.sd.gov

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

April 7, 2010

Cody Christensen
88005 Hwy 57
Hartington NE 68739

Dear Mr. Christensen:

Water Permit Application No. 7189-3 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 Yankton Press & Dakotan printed at Yankton SD (Ph # 605-665-7811). 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
eric.gronlund@state.sd.us

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 14, 2010 with the second publication 7 days later. The applicant is responsible for payment. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352 or email: Karen.schlaak@state.sd.us.

NOTICE OF APPLICATION NO. 7189-3 to Appropriate Water

Notice is given that Cody Christensen, 88005 Hwy 57, Hartington NE 68739 has filed an application for a water permit to appropriate 0.78 cubic feet of water per second (cfs) from one well to be completed into the Missouri:Elk Point Aquifer (approximately 100 feet deep) located in SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 35 to irrigate 40 acres located in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 35; all in T93N-R54W. 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. 7189-3 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 3, 2010.

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.

Published twice at the total approximate cost of _____.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

JUL 15 2010

Cody Christensen
88005 Hwy 57
Hartington NE 68739

Dear Mr. Christensen:

Enclosed is Water Permit No. 7189-3 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

SEP 20 2010

WATER RIGHTS
PROGRAMNOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USEDate 9-13-10TO: Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181

FROM:

Cody W Christensen
(name)
88005 Hwy 57
(address)
Hartington, Ne 68739
(city, state, zip)

(phone)

I have completed the construction of the water use system and I have put the water to beneficial use to the maximum extent it is going to be used.

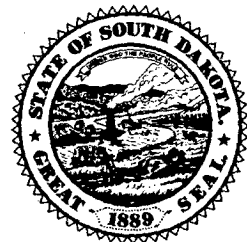
Water Permit No. 7189-3 states that the water use system is to be constructed by May 3, 2015, and water is to be put to beneficial use by May 3, 2019.
(date) (date)

The water use system was completed on 5-31-10.
(date)

Applying the water to beneficial use was completed on 5-31-10.
(date)

You may schedule an investigation so that the water license may be issued.

Cody W Christensen
(signature)





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

September 21, 2010

7189-3

Cody W Christensen
88005 Hwy 57
Hartington NE 68739

Dear Mr. Christensen:

I am writing to acknowledge receipt of the "Notice of Completion of Works" form that you sent in to let us know that you are completed with your irrigation system.

The system is now ready for inspection. Inspections are done on a county-by-county basis as staff time permits. You have done everything you need to do and the intervening time between the completion of your project and the staff inspection has no bearing on your water permit.

Someone from our office will contact you prior to the inspection to set up a time that is convenient for you. If you have any questions, please contact me.

Sincerely,

A handwritten signature in black ink that reads "Genny McMath".

Genny McMath
Environmental Scientist
Water Rights Program
(605) 773-3352
email: genny.mcmath@state.sd.us

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 7189-3

I have this day, **October 25, 2016**, made a thorough examination of the water use system constructed by **Cody Christensen, 88005 Hwy 57, Hartington NE 68739** of Permit No. **7189-3**, bearing the priority of **March 22, 2010** authorizing the diversion of **0.78** cu. ft. per second of the waters of **Missouri:Elk Point Aquifer** for **irrigation** purposes, of **40** acres, in **Yankton** County.

Inspection contact & relationship **Cody Christensen, permit holder**
to permit holder, if applicable:

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: **Christensen Well & Irrigation**
- 2) No. of Wells **1**
- 3) Depth(s) **94** feet
- 4) Well log is available **Yes (requested from Well Driller – submitted 6-18-2018)**

Screen:

- 1) Type **0.085 slot size**
- 2) Length **Unknown** feet
- 3) Static water level **18** feet

Pump:

- 1) Make **Goulds**
- 2) Model **Submersible**
- 3) Capacity **250** GPM

Motor:

- 1) Make **Goulds**
- 2) Model No. **Submersible**
- 3) Horsepower rating **15** hp

C. Works used to apply water to beneficial use:

Center pivot:

- 1) Make T-L Irrigation Systems
- 2) Overall length 625 feet
- 3) Number of towers 4
- 4) End gun Yes
- 5) Capacity 250 GPM

Comments: Water Permit 7189-3 appropriated 0.78 cfs or 350 gpm, however only 0.56 cfs or 250 gpm was developed.
T-L Irrigation uses a hydraulic drive system.

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, began irrigating in 2010.

List any extended period of nonuse: Did not use in 2014 due to adequate rainfall.

- 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: East 660', North 650' from SW Corner of Sec 35-T93N-R54W; Lat 42.82453/Long -97.19734; SW ¼ SW ¼ Sec 35-T93N-R54W.
2. The works are capable of diverting and conveying to the place of use 0.56 cfs or 250 gpm of water which is to be used for irrigation. Water has been put to beneficial use to the maximum extent as follows:
All land is located in Sec 35-T93N-R54W.
SW ¼ SW ¼ - 33 ac
comprising a total of 33 acres of land and the license should be issued for 0.56 cfs or 250 gpm.
3. All structures, wells and lands on map Yes

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

Provide detailed explanation when multiple permits are involved or any discrepancy between what the permit was issued for and what was developed.

Water Permit No. 7189-3 appropriates a diversion rate greater than the statutory limit of 1 cfs per 70 acres irrigated.



Harold Holoch, PE
Staff Engineer
DENR, Water Rights Program

Date report completed: **May 22, 2018**

34 93 N 54 W

Yankton

Sec 34 T93N-R54W

35

SW SW 33 ac

Well
Lat: 42.82453
Long: -97.19734

Well Location
From the SW corner of
Sec 35 T93N-R54W
650 Ft N
660 Ft E

Sec 35 T93N-R54W

Sec 3 T92N-R54W

2 92 N 54 W

3

Total Acres = 33 ac

Sec 2 T92N-R54W



Harold Holoch, PE
Staff Engineer
April 26, 2017



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
www.denr.sd.gov

June 13, 2018

7189-3

Cody Christensen
88005 Hwy 57
Hartington NE 68739

Dear Mr. Christensen:

I am contacting you in regard to your water permit No. 7189-3. The permit covers irrigation of acreage in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 35, T93N, R54W. The well is located in the center of the quarter-quarter.

We are in the process of writing up the water license for this permit. A license is issued after the project is developed and is the final document completing the process of obtaining a water permit. Upon writing up the license we found the well completion report was never filed.

The staff engineer who conducted the field investigation made a notation the well was 94 feet deep. Please go through your records and send us a copy of the log. Once we receive the well log, the file will be complete and the water license can be issued. You can either scan and email it to me or mail it by regular mail. I have included a postage paid envelope for your convenience.

If you have any questions, please let me know.

Sincerely,

Genny McMath
Water Rights Program
(605) 773-3352
email: genny.mcmath@state.sd.us

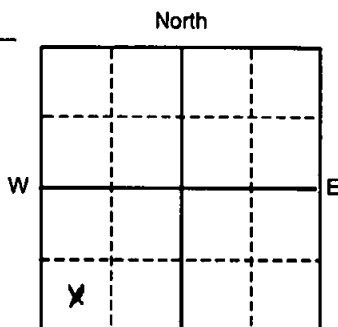
enclosure

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW 1/4 SW 1/4 Sec 35 Twp 93N Rg 54WCounty Hankston

Please mark well location with an "X"



Well Completion Date

4-28-10

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

2000 ft. fromseptic

(Identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

Reverse Rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

 PIPEWEIGHT DIAMETER FROM TO HOLE DIAMETER
1100 LB/FT 160 IN 0 FT 74 FT 28 IN
 LB/FT IN FT FT IN
 LB/FT IN FT FT IN

GROUTING DATA:

 Grout Type No. of Sacks Grout Weight From To
Cement 160 Lb/gal 0 Ft 70 Ft
 Lb/gal Ft Ft

Describe grouting procedure

pumped down w/ grouter

SCREEN:

☒ Perforated pipe ☐ Manufactured
 Diameter 16 Inches Length 20 Feet
 Material PVC
Slot Size 085 Set From 74 Feet to 94 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? Chlorine☐ No, Why Not?

Lab to which water quality sample sent for analysis

Well Owner:

Durham LLC

Business Name:

Colly W. Christensen

Address:

8805 Hwy 57

City, State, Zip:

Hankston, ND 58739

WELL LOG:

DEPTH

FORMATION	DEPTH	
	FROM	TO
<u>Dark topsoil</u>	<u>0</u>	<u>5</u>
<u>silt sand clay</u>	<u>5</u>	<u>100</u>
<u>sand + gravel</u>	<u>100</u>	<u>85</u>
<u>gravel + ROCKS</u>	<u>85</u>	<u>94</u>

STATIC WATER LEVEL

18

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

52 Ft. After 2 Hrs. pumped 960 GPM

Ft. After Hrs. pumped GPM

If pump installed, pump rate: 250 GPM

REMARKS

This well was drilled under license #

444

and this

report is true and accurate.

Drilling firm:

Christensen Well & Pumping

Signature of License Representative:

Colly W. Christensen

Signature of Well Owner or Equitable Property Holder:

Colly W. Christensen

Date:

6-18-10

Received by email 6-18-18

88005 Hwy. 57
Hartington, NE 68739
Office 402-254-6809

OWNER

ADDRESS

STATE

TEST HOLE ☐FARM WELL ☐

IRRIGATION

GPS Coordinates:

$$\begin{array}{r} 42^{\circ} \quad 49' \quad 28.30'' \\ 97^{\circ} \quad 11' \quad 50.32'' \end{array}$$

Quarter

Section

Township

Range

County:

FT	FT
0	5
5	60
60	85
85	94

flyb topsoil
 silty sandy clay
 sand + gravel
 gravel & rocks

STATIC WATER LEVEL

PUMPING WATER LEVEL 960 GPM (2)

SCREEN LENGTH

SLOT SIZE

TOTAL DEPTH

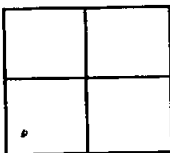
18'

52'

085

94'

7189-3



Johnson

Well Casing Company

109 East B Street
Hastings, Nebraska 68901

Phone: 402-463-1359
Wats: 800-752-1670
Fax: 402-463-1350

Pump Info

at

40 Acres in South
Dakota

250 GPM Goulds

6" Submersible

15 H.P. 230 volt 1 phase

Casey Christensen



- DISTRIBUTORS OF PVC WELL CASING -



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

JUN 29 2018

7189-3

Cody Christensen
88005 Hwy 57
Hartington NE 68739

Dear Mr. Christensen:

Enclosed is Water License No. 7189-3. 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 in the future, the owner of an existing well, 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,

A handwritten signature in cursive script that reads "Jeanne Goodman".

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

enclosures

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 7189-3

(1) Cody Christensen, 88005 Hwy 57, Hartington NE 68739 made Application No. 7189-3, March 22, 2010 for a water permit to divert 0.78 cubic feet of water per second from ground water, one well (Missouri Elk Point Aquifer), Yankton County, South Dakota for irrigation purposes. Permit No. 7189-3, with a priority date of March 22, 2010 was approved May 3, 2010 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before May 3, 2015 and for the application to beneficial use of said water on or before May 3, 2019.

(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 0.56 cubic feet of water per second for beneficial use. The location of the diversion point is:

- 660'E and 650'N of the SW Corner of Section 35, T93N, R54W (SW $\frac{1}{4}$ SW $\frac{1}{4}$)
Latitude 42.82453, Longitude -97.19734

(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:

- T93N, R54W Section 35 SW $\frac{1}{4}$ SW $\frac{1}{4}$ 33 acres

(4) Pursuant to South Dakota Water Law 46-5-30.1 Cody Christensen, 88005 Hwy 57, Hartington NE 68739 the holder and/or owner of Water Right No. 7189-3 is issued a license to appropriate water, the right to use 0.56 cubic feet of water per second from ground water, one well (Missouri Elk Point Aquifer) with a priority date of March 22, 2010 from the location 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. 7189-3 and subject to 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 adequate wells having prior water rights.
- The well authorized by Permit No. 7189-3 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. *The well was drilled by Christensen Well & Irrigation in April, 2010. A copy of the well completion report is on file with the Water Rights Program.*

- Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or types of soils so requires, Permit No. 7189-3 authorizes a maximum diversion rate of **0.56 cfs** for the irrigation of **33** acres with an annual volume not to exceed 2 acre feet of water per acre per year. *The diversion rate and acres irrigated have been changed from the original permit to reflect actual amounts developed.*
- 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 2018

date

