

WATER PERMIT NO. 7534-3

Name of Applicant: Joe/John Arthur

Address: 46409 154th St, South Shore SD 57263

Phone: 605 756-4464

Amount of Water Claimed: 1.78 cfs

Total Acres: no add'l

Source of Water Supply: groundwater (one well)

Water to be used for: irrigation

County: Grant

Type of Waste Disposal System:

Location: 15 miles southwest of Milbank

PRIORITY

Date Received: 11-27-12

Application/License Fee: \$ 700

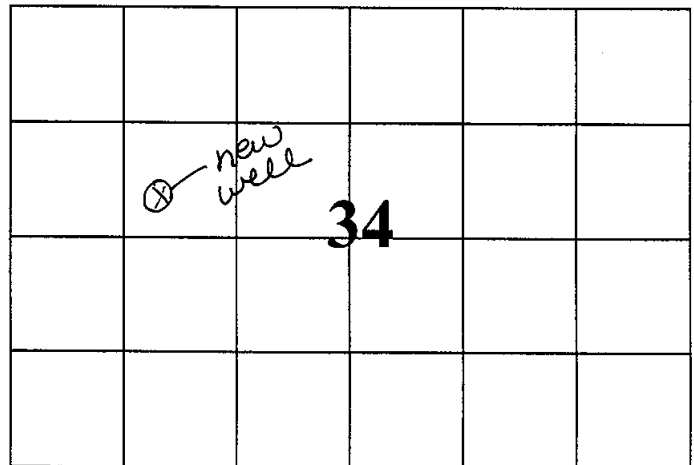
Corrected Application Received:

Period of Annual Use: April 1 – October 31

Remarks: additional well to irrigate acreage authorized by Water Right No. 2333-3 and No. 5382-3

Diversion Point: SW 1/4 NW 1/4 Sec 34-T120N-
R51W

Land to be Irrigated: N 1/2 Sec 34-T120N-R51W



Depth of Well: 64 feet deep

Well Driller: Lacey Well Drilling

Remarks:

Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 12-3-12

By: Karen Schlaak

Notice of Hearing - date to intervene: _____

Mail to:
Water Rights Program
Joe Foss Building
523 E. Capitol
Pierre, SD 57501-3181
(605) 773-3352

(office use only)
No. 7534-3 Hydrologic Unit 07020001
Basin Minnesota Whetstone 605-432-4516
Newspaper Grant Co. Review Box 390 Millbank 57252
Public Opinion Box 10 Watutown 57201-605-886-6901

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WATER RIGHTS
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Application For Permit To Appropriate Water For Irrigation

Type of Application: Amendment/Correction to Permit No. 2333-3
(check one) Amendment/Correction to Permit No. 5382-3
Type of Application: Amendment/Correction to Permit No. 2333-3
(check one) Amendment/Correction to Permit No. 5382-3

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

cell-880-6469

1. Name of Applicant Joe/John Arthur ☒ Owner ☐ Tenant/Lessee Phone 605-756-4464
(check one)
Mailing Address 46409 154th St. South Shore State South Dakota
(Street, RR, or Box) (Zip Code) 57243
2. Amount of water claimed 1.78 *CFS or 800 **GPM ***AF Total Acreage no add
(*Cubic Feet per Second) (**Gallons per Minute) (***) Acre Feet - storage capacity of dam/dugout .. applicable)
3. Source of water supply Ground
4. Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) 1 well in the
Sec 34 - T120N - R51W NW 1/4
(SW1/4 NW1/4) County Grant So. Dak
5. County or counties where water will be used Grant County So. Dak
6. Annual period during which water is to be used April 1 to October 31
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
<u>N 1/2</u>			

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

Drill another well to try and make the present
irrigators more efficient

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)

STATE OF SOUTH DAKOTA)
County of Grant ss

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

Signed

Joe Arthur

Subscribed and sworn to before me this 26 day of November 2012

Kathy Hargreaves
Notary Public

My Commission Expires March 26, 2016

SOUTH DAKOTA
WATER PERMIT NO. 7534-3

Date of first receipt of application November 27, 2012.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7534-3 to Joe/John Arthur, 46409 154th St, South Shore SD 57263 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. 7534-3 appropriates an additional 1.78 cubic feet of water per second (cfs) from an additional well to irrigate acres authorized by Water Right No. 2333-3 and Water Permit No. 5382-3. Water Right No. 2333-3 and Water Permit No. 5382-3 authorizes a total 7.14 cfs from 4 wells located in Section 34 to irrigate 555 acres located in Section 34 and the W 1/2 SW 1/4 Section 35; all in T120N-R51W. This permit authorizes an additional 1.78 cfs diversion rate authority from one additional well completed into the Antelope Valley Aquifer (64 feet deep) located in the SW 1/4 NW 1/4 Section 34-T120N-R51W. This will allow the four pivots to run simultaneously. No increase in the number acres is authorized by this permit.
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 – October 31.
3. The date from which applicant may claim right is November 27, 2012.
4. The date of approval of Permit No. 7534-3 is February 19, 2013.
5. One-fifth of the construction is to be completed on or before August 19, 2015.
6. All construction is to be completed on or before February 19, 2018.
7. Water is to be put to beneficial use on or before February 19, 2022.
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 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 well authorized by Permit No. 7534-3 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, Water Right No. 2333-3 and Permit Nos. 5382-3 and 7534-3 authorizes a maximum diversion rate of 8.92 cfs for the irrigation of 555 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: *Jeanne Goodman*

Jeanne Goodman, Chief Engineer
Water Rights Program

Department of Environment and Natural Resources

APR 12 2013

date



Supplemental Information

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 20" Depth 64
- b) Casing Type PVC Diameter 14" Thickness Sch 40
- c) Screen Type Stainless Steel Diameter 14" Thickness High Flow
- d) Gravel Pack 1/4 x 1/8 Length of Gravel Pack 35'
- e) Depth to Top of Water Bearing Material 10'
- f) Depth to Water (ground surface to water level) 10'
- 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

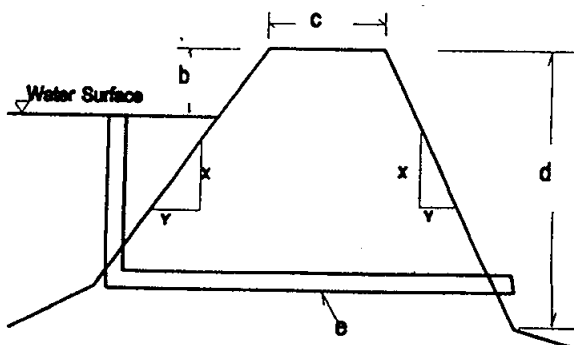
3. Dugout Information

- 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.

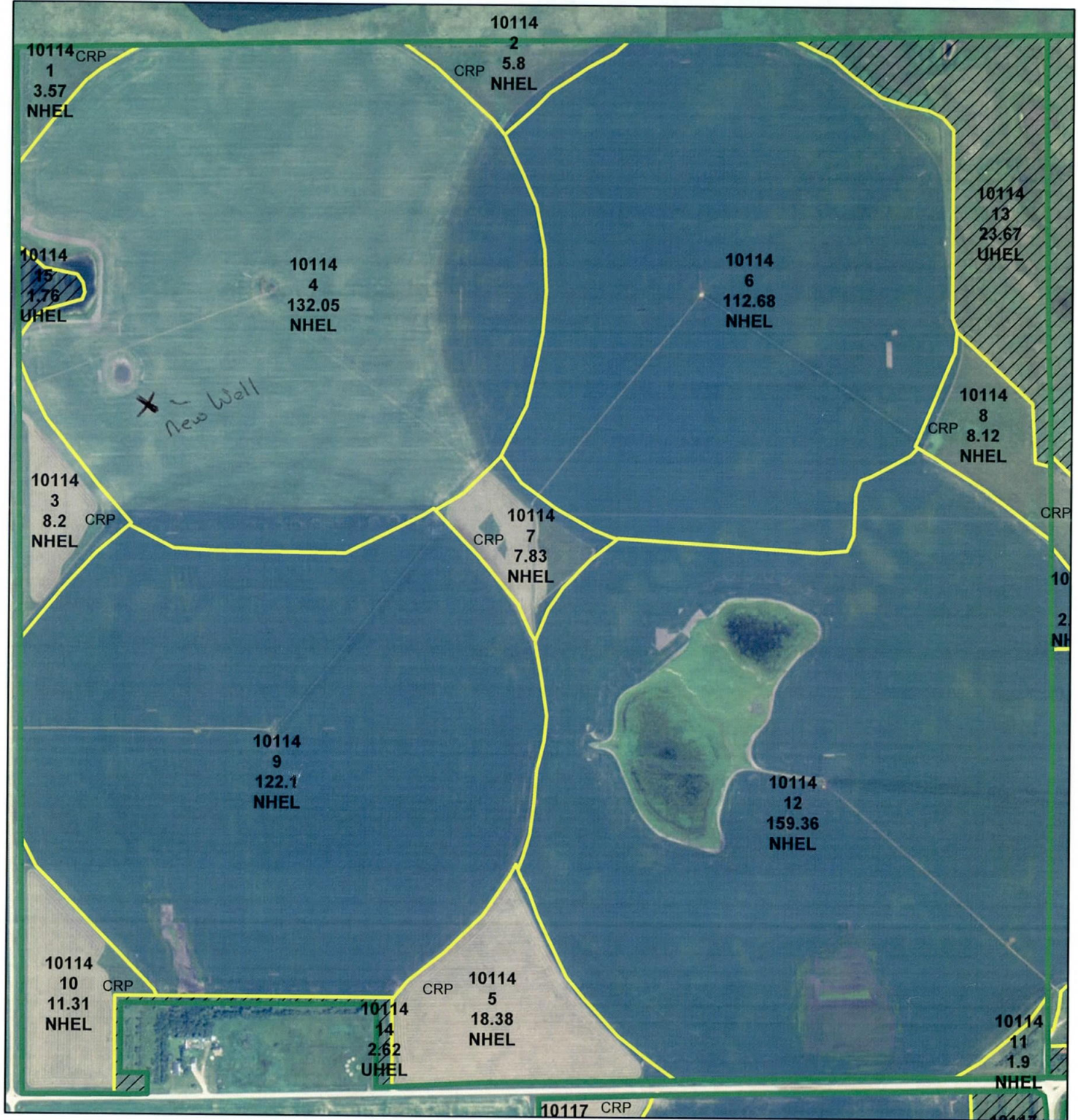
- a) If a private engineering firm or government agency was involved in the design of this dam, please give their name and address:



- 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



United States Department of Agriculture Farm Service Agency



Clark County, SD

PLSS: 34_120_51
Farm: 4017

Wetland Determination Identifiers

- Restricted Use
- ▼ Limited Restrictions
- Exempt from Conservation Compliance Provisions

- Tract Boundary
- Common Land Units



USDA FSA maps are for FSA Program administration only. This map does not represent a legal survey or reflect actual ownership; rather it depicts the information provided directly from the producer and/or the 2010 ortho rectified imagery for South Dakota. The producer accepts the data 'as is' and assumes all risks associated with its use. The USDA Farm Service Agency assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data outside of FSA Programs.

Disclaimer: Wetland identifiers do not represent the size, shape or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.

1:8,108

2010 Ortho-Photography - Not to Scale

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November 24, 2010

Wells — Pumps
Dewatering Work
Test Drilling

In Water Since 1946

LACEY WELL DRILLING, INC.
47582 - 240th St.
Dell Rapids, South Dakota 57022
Telephone (605) 428-5979

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Down-Hole Camera

Water Specialists

Irrigation Supplies

Test Hole

0-5 Till

5-64 Gravel

64- Blue Clay

SWL- 10'

Joe Arthur

46409 154th St-

South Shore S.Dak.

57263

Drilled 10-8-12

Driller Joan Redder-Lacey

Joan Redder-Lacey

Lacey Well Drilling Inc.

Ln: 111

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 11/30, 20 12

RECEIVED OF John Arthur

46409 154th St

South Shore SD 57263

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

Fee for Application for Permit No. <u>7534-3</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>7534-3</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. 05724

By

Shirley Erdene
Chief Engineer

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Ron

I propose to drill another
well in the North West $\frac{1}{4}$ of Sec 34.

I won't change the gallons used. I am
simply going to take the load off
the other well which is at the
center of the plot. This year I
did not shut that well off for
70 day straight

Thanks Joe

cell no 605-880-6469

WATER RIGHTS PROGRAM -- FILE DOCUMENTATION

NAME: Joe Arthur

ADDRESS: 464409 154th St

DATE: November 29, 2012

RE: Application for new well to water acreage covered by No. 2333-3

COMMENTS:

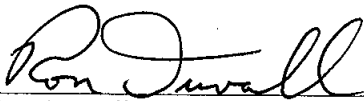
I visited with Joe Arthur concerning whether he intended to use the proposed well to operate both pivots in the N1/2 section 34-T120N-R51W simultaneously. Mr. Arthur indicated that previously only one pivot could be operated at a time and now he wanted to be able to operate both at the same time. This would take pressure off the single well currently used.

I told Mr. Arthur to increase the diversion rate by 800 gpm over his existing usage would require a new permit for the additional well. The existing well near the center of the NW1/4 and proposed well, also in the NW1/4, would be used to irrigate the N1/2 of section 34.

The land in the S1/2 is irrigated from a well covered by No. 2333-3 and another well covered by No. 5382-3 which also increased the number of irrigated by 55 acres.

RECOMMENDED ACTION:

Process the application for an additional well with a diversion rate of 800 gpm for irrigation of the N1/2 section 34-T120N-R51W.



Ron Duvall
Natural Resources Engineer
Water Rights Program



**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. 7534-3, Joe / John Arthur**

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. 7534-3, Joe / John Arthur, 46409 154th Street, South Shore SD 57263.

The Chief Engineer is recommending APPROVAL of Application No. 7534-3 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 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 well authorized by Permit No. 7534-3 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.

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, Water Right No. 2333-3 and Permit Nos. 5382-3 and 7534-3 authorizes a maximum diversion rate of 8.92 cfs for the irrigation of 500 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
January 25, 2013

**REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 7534-3
JOE/JOHN ARTHUR
JANUARY 15, 2013**

Water Permit Application No. 7534-3 proposes to increase the maximum diversion rate authorized by Water Right No. 2333-3 and Water Permit No. 5382-3 by 1.78 cubic feet of water per second (cfs) from an additional well to be completed into the Antelope Valley aquifer. The well is expected to be approximately 64 feet deep and is to be located in the SW¼ NW¼ of Section 34, T120N-R51W in Grant County. Water Right No. 2333-3 and Water Permit No. 5382-3 authorize a maximum diversion rate of 7.14 cfs from four wells located in Section 34 to irrigate 555 acres located in Section 34 and W½ SW¼ of Section 35, all in T120N-R51W. The addition of the proposed well will allow four pivots to run simultaneously. If approved, this application plus Water Right No. 2333-3 and Water Permit No. 5382-3 will result in five wells diverting at a total maximum diversion rate of 8.92 cfs to irrigate a total of 555 acres, resulting in a diversion rate in excess of the statutory limit. No additional volume of water is requested by this application.

AQUIFER: Antelope Valley aquifer (AV)

GEOLOGY AND AQUIFER CHARACTERISTICS:

The Antelope Valley aquifer is a glacial outwash consisting of brown coarse sand and gravel that lies at or near ground surface and is generally under water table conditions. The aquifer lies in the drainage divide between the Big Sioux and Minnesota Rivers located in western Grant, northeastern Codington, and a small portion of Deuel County. Groundwater movement in the aquifer is generally from northwest to southeast and toward the numerous hydraulically connected to lakes and sloughs (Hansen, 1990). In total, the Antelope Valley aquifer is estimated to underlie 28,700 acres and contain 64,580 acre-feet (ac-ft) of recoverable water in storage (Hedges and others, 1982).

In Grant and Codington Counties, the depth to the top of the aquifer ranges from one to 57 feet below ground surface and the thickness averages 34 feet (Hansen, 1990). In the area of the proposed well site, the aquifer is expected to be approximately 40 feet thick. From the test hole information submitted with this application, aquifer material was encountered below five feet of till down to 64 feet below ground surface. On October, 2012 static water level was reported to be ten feet below ground surface. Well logs submitted for water rights/permits in the same section of the proposed well site document similar stratification with the exception of a 15 foot clay layer approximately 15 feet below ground surface in the northern portion of the section.

SDCL 46-2A-9

Pursuant to SDCL 46-2A-9, a permit to appropriate water may be issued only if there is a reasonable probability that there is unappropriated water available for the applicant's proposed use, that the proposed diversion can be developed without unlawful impairment of existing rights and that the proposed use is a beneficial use and in the public interest. This report will address

the availability of unappropriated water and existing rights from the aquifer that are pertinent to this application.

WATER AVAILABILITY:

Water Permit Application No. 7534-3 proposes to increase the diversion rate authorized by Water Right No. 2333-3 and Water Permit No. 5382-3. This application does not request an increase in the total volume of water appropriated; therefore, water availability is not an issue. Although the volume authorized will not increase, this additional appropriation could result in additional water use.

EXISTING WATER RIGHTS:

In addition to domestic wells on record with the SD DENR-Water Rights Program, there are 16 water rights/permits appropriating water from the Antelope Valley aquifer, with eight of these within two miles of the proposed well site, shown in Table 1 (Water Rights, 2013b; Water Rights, 2013c).

Table 1: Water rights/permits within two miles of the proposed well site (Water Right, 2013b)

Permit No.	Name	Priority Date	Status	Use	CFS	Acres
2333-3	Joe/John Arthur	08/18/1975	LC	IRR	4	500
2478-3	Joe/John Arthur	12/15/1975	LC	IRR	1.07	75
3781-3	Joe/John Arthur	02/27/1975	LC	IRR	3.75	264
5173A-3	Steve & Pam Schaefer	03/03/1987	LC	IRR	2.44	166
5173B-3	Willow Run Farms FLP	03/03/1987	LC	IRR	1.78	136
5382-3	Joe/John Arthur	01/22/1990	PE	IRR	3.14	55
5586-3	Willow Run Farms FLP	02/18/1975	LC	IRR	6	420
7192-3	Willow Run Farms FLP	04/05/2010	PE	IRR	1.11	55
LC = Water Right, PE = Water Permit, IRR = Irrigation						

The water table conditions of the aquifer in this area dictate that any drawdown due to pumping would probably not be significant far from the proposed well sites (i.e. less than half a mile). The Water Management Board has consistently recognized that to place water to maximum beneficial use a certain amount of drawdown may occur.

Observation well GT-77G is the nearest observation well completed in the Antelope Valley aquifer to the proposed well site and probably best indicates the characteristics of the aquifer at this location. This well is located approximately one half mile south of the proposed well site and is located within one half mile of one well authorized by a water right/permit completed into the aquifer. The next nearest observation well, GT-76D, is located approximately one and a half miles northwest of the proposed well site and is located within one half mile of four wells authorized by water rights/permits completed into the aquifer (Water Rights, 2013a). The hydrographs for these observation wells, shown in Figures 1 and 2, document the effects of pumping; however, these are minimal relative to climatic conditions.

Therefore, at the distances involved between the proposed well site and wells of existing water rights/permits and domestic users, interference is not expected to be a concern. A nearby adequate well defined by ARSD 74:02:20(7), which states that the pump intake must be set 20 feet below the top of the aquifer or, if the aquifer is less than 20 feet thick, as near to the bottom of the aquifer as is practical, is not expected to be adversely or unlawfully impaired.

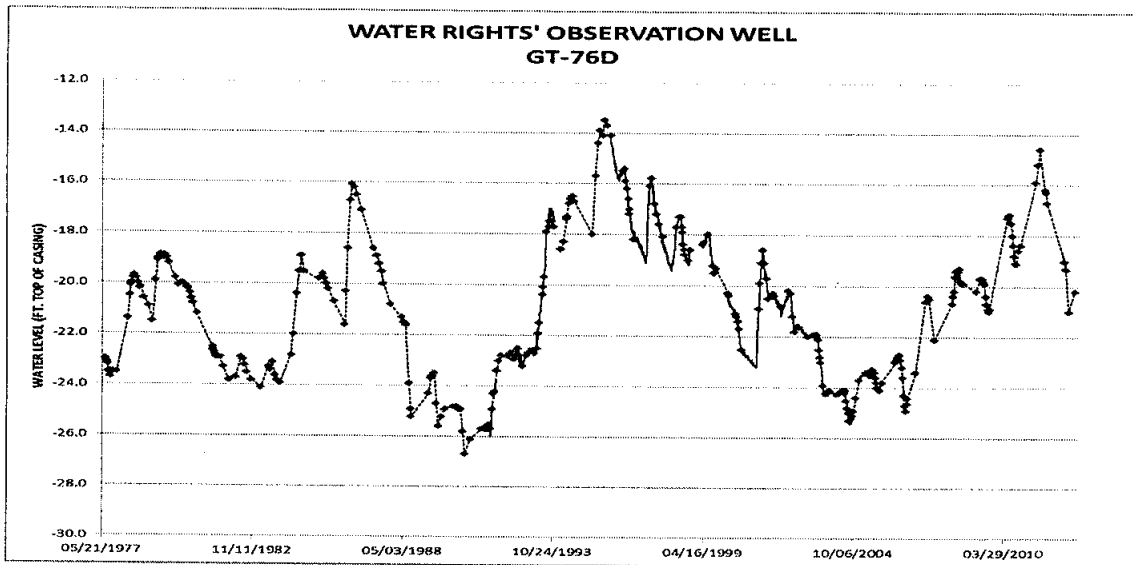


Figure 1: Hydrograph for observation well GT-76D (Water Rights, 2013a)

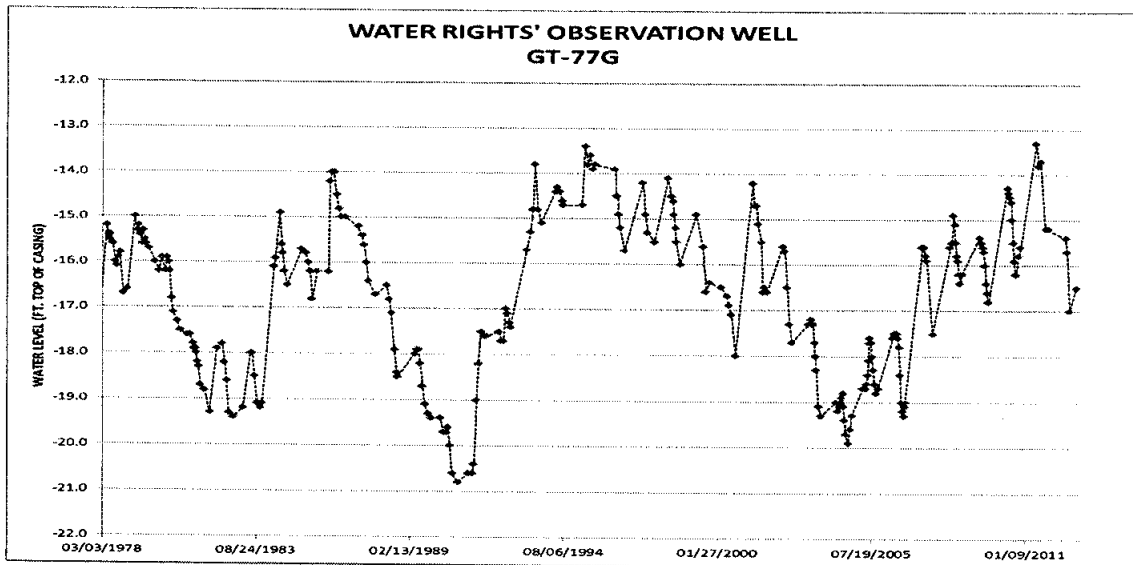


Figure 2: Hydrograph for observation well GT-77G (Water Rights, 2013a)

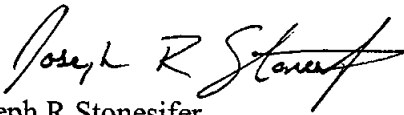
SDCL 46-5-6

Pursuant to SDCL 46-5-6, the diversion rate for an irrigation appropriation cannot be in excess of one cubic foot of water per second for every seventy acres, or “the equivalent thereof.” The statute provides that the Water Management Board may allow a greater diversion if the method of irrigation so requires.

If approved, this application plus Water Right No. 2333-3 and Water Permit No. 5382-3 will result in five wells diverting at a total maximum diversion rate of 8.92 cfs to irrigate a total of 555 acres, equating 1.13 cfs per 70 acres. The addition of the proposed well will allow four pivots to run simultaneously.

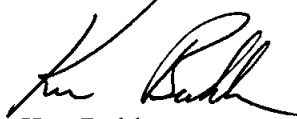
CONCLUSIONS:

1. Water Permit Application No. 7534-3 proposes to increase the maximum diversion rate authorized by Water Right No. 2333-3 and Water Permit No. 5382-3 by 1.78 cubic feet of water per second (cfs) from an additional well to be completed into the Antelope Valley aquifer.
2. If approved, Water Permit Application No. 7534-3 plus Water Right No. 2333-3 and Water Permit No. 5382-3 will result in five wells diverting at a total maximum diversion rate of 8.92 cfs to irrigate a total of 555 acres.
3. There is a reasonable probability that the proposed additional well and diversion rate will not cause a significant impact to existing nearby wells, and therefore, will not adversely or unlawfully impair existing users.
4. If approved, the addition of Water Permit Application No. 7534-3 to Water Right No. 2333-3 and Water Permit No. 5382-3 will result in a total diversion rate in excess of one cfs per 70 acres. This will allow pivots to operate simultaneously.



Joseph R. Stonesifer
SD DENR-Water Rights Program

Approved by



Ken Buhler
SD DENR-Water Rights Program

REFERENCES:

- Hansen, D.S. 1990. Water Resources of Codington and Grant Counties, South Dakota: U.S. Geological Survey Water-supply Paper 2254, 263 p.
- Hedges, L.S., Burch, S.L., Iles, D.L., Barari, R.A., and Schoon, R.A. 1982. Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 1: Bedrock Topography and Distribution, Task 2: Extent of Aquifers, Task 3: Ground-Water Storage, Task 4: Computerized Data Base, Final Report. U.S. Army Corps of Engineers Contract DACW 45-80-C-0185.
- Water Rights. 2013a. Observation Well Files, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2013b. Water Right/Permit Files, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2013c. Water Well Completion Reports, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

Printer's Affidavit of Publication

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STATE OF SOUTH DAKOTA
COUNTY OF GRANT

} ss.

FEB - 8 2013

WATER RIGHTS
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Ann Tuchscherer

of said County and State, being first duly sworn, on oath says that the Grant County Review is a legal weekly newspaper of general circulation, printed and published in Milbank, in said County of Grant and State of South Dakota, by Phyllis Justice, and has been such newspaper during the times hereinafter mentioned; that said newspaper is a legal newspaper; and that it has a bona fide circulation of more than two hundred copies weekly, and has been published within said County of Grant in the English language and has been admitted to the United States mail under second class mailing privilege, for at least one year next prior to the publication of the Notice herein mentioned, and has been printed wholly in an office maintained at the said place of publication, that I, the undersigned, Bookkeeper of said newspaper, in charge of the advertising department thereof, have personal knowledge of all the facts stated in this affidavit; that the advertisement headed Notice of

Application No. 7534-3 to Appropriate
Water

a printed copy of which, taken from the paper in which the same was published, is attached to this sheet and is made a part of this Affidavit, was published in said newspaper at least once each week for One ~~successive~~ weeks, on the day of each week on which the said newspaper was regularly published, to-wit:

<u>February 6</u>	<u>2013</u>	<u>20</u>
<u>20</u>		<u>20</u>
<u>20</u>		<u>20</u>

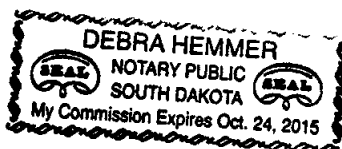
That \$ 27.70, being the full amount of the fee charged for the publication of said Notice, inures to the benefit of the publisher of the Grant County Review; that no agreement or understanding for the division thereof has been made with any person, and that no part has been agreed to be paid to any person whomsoever.

Ann Tuchscherer

Subscribed and sworn to before me this 6th day of Feb 20 13

Debra Hemmer

Notary Public, Grant County, South Dakota



Publication Fee \$ 27.70
Notarial Fee \$
Total \$ 27.70

NOTICE OF APPLICATION

NO. 7534-3 to Appropriate Water

Notice is given that Joe/John Arthur, 46409 154th St, South Dakota, SD, 57263, have filed an application for a water permit to appropriate an additional 1.78 cubic feet of water per second (cfs) from an additional well to irrigate acres authorized by Water Right No. 2333-3 and Water Permit No. 5382-3. Water Right No. 2333-3 and Water Permit No. 5382-3 authorizes a total 7.14 cfs from 4 wells located in Section 34 to irrigate 555 acres located in Section 34 and the W 1/2 SW 1/4 Section 35; all in T120N-R51W. This application requests an additional 1.78 cfs diversion rate authority from one additional well completed into the Antelope Valley Aquifer (64 feet deep) located in the SW 1/4 NW 1/4 Section 34-T120N-R51W. This will allow the four pivots to run simultaneously. No increase in the number acres is authorized by this application.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7534-3 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 February 19, 2013.

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 once at an approximate cost of \$27.70.

ES 2/9/13

RECEIVED

FEB 13 2013

Form 8

WATER RIGHTS
PROGRAM

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County of Codinton) SS

I, Monica K. Saathoff

certify that the attached printed Notice was
taken

from the Watertown Public Opinion

printed and published in Watertown

County of Codington and

state of South Dakota. The notice was
published

in the newspaper on the following date:

February 6th, 2013

Cost of Printing 67.45

Monica K. Saathoff
(Signature)

Bookkeeper

(Title)

February 6th, 2013

(Date Signed)

DEPARTMENT
OF ENVIRON-
MENT AND
NATURAL
RESOURCES

NOTICE OF APPLICATION
NO. 7534-3 to Appropriate
Water

Notice is given that Joe/John Arthur, 46409 154th St, South Shore SD 51263 have filed an application for a water permit to appropriate an additional 1.78 cubic feet of water per second (cfs) from an additional well to irrigate acres authorized by Water Right No. 2333-3 and Water Permit No. 5382-3. Water Right No. 2333-3 and Water Permit No. 5382-3 authorizes a total 7.14 cfs from 4 wells located in Section 34 to irrigate 555 acres located in Section 34 and the W 1/2 SW 1/4 Section 35; all in T120N-R51W. This application requests an additional 1.78 cfs diversion rate authority from one additional well completed into the Antelope Valley Aquifer (64 feet deep) located in the SW 1/4 NW 1/4 Section 34-T120N-R51W. This will allow the four pivots to run simultaneously. No increase in the number acres is authorized by this application.

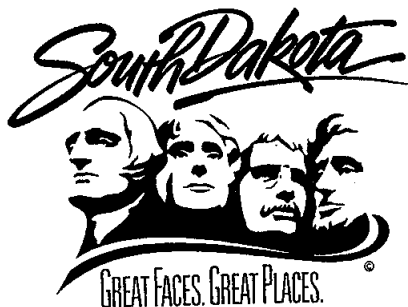
Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7534-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief 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 February 19, 2013.

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 once at the approximate cost of \$62.50.
(February 6, 2013)

All legal notices in the Public Opinion and other South Dakota newspapers can be found at
www.sdpublishnotices.com



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

January 28, 2013

Grant Co Review
PO Box 390
Milbank SD 57252

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 7534-3 to Appropriate Water. Please publish the notice once on February 6, 2013. 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 and arrange for payment. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Joe/John Arthur, 46409 154th St., South Shore SD 57263 (Ph # 605-756-4464).

Please send the Water Rights Program an affidavit or the enclosed Proof of Publication form immediately.

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



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

January 28, 2013

Public Opinion
PO Box 10
Watertown SD 57201

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 7534-3 to Appropriate Water. Please publish the notice once on February 6, 2013. 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 and arrange for payment. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Joe/John Arthur, 46409 154th St., South Shore SD 57263 (Ph # 605-756-4464).

Please send the Water Rights Program an affidavit or the enclosed Proof of Publication form immediately.

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



**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 DATE, CONTACT
THE NEWSPAPER(S) RIGHT AWAY.

January 28, 2013

Joe/John Arthur
46409 154th St
South Shore SD 57263

Dear Mr. Arthur

Water Permit Application No. 7534-3 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 Grant County Review printed at Milbank SD (Ph # 605-432-4516) and the Public Opinion printed at Watertown SD (Ph # 605-886-6901). You will need to contact the newspaper(s) 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(s) to authorize publication of your Notice and to arrange for payment. Early contact with the paper(s) can eliminate delays. Upon receiving authorization from you, the publisher has been instructed to publish your notice. 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 the Notice on February 6, 2013. 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. 7534-3 to Appropriate Water

Notice is given that Joe/John Arthur, 46409 154th St, South Shore SD 57263 have filed an application for a water permit to appropriate an additional 1.78 cubic feet of water per second (cfs) from an additional well to irrigate acres authorized by Water Right No. 2333-3 and Water Permit No. 5382-3. Water Right No. 2333-3 and Water Permit No. 5382-3 authorizes a total 7.14 cfs from 4 wells located in Section 34 to irrigate 555 acres located in Section 34 and the W 1/2 SW 1/4 Section 35; all in T120N-R51W. This application requests an additional 1.78 cfs diversion rate authority from one additional well completed into the Antelope Valley Aquifer (64 feet deep) located in the SW 1/4 NW 1/4 Section 34-T120N-R51W. This will allow the four pivots to run simultaneously. No increase in the number acres is authorized by this application.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7534-3 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.

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Published once 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

APR 12 2013

Joe/John Arthur
46409 154th St
South Shore SD 57263

Dear Sirs:

Enclosed is Water Permit No. 7534-3 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,

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

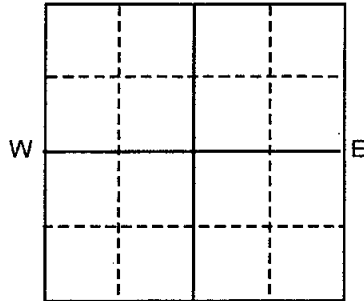
enclosures

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location NE 1/4 SW 1/4 Sec 34 Twp 120N Rg 51WCounty Grant

North

Please mark well
location with an "X"

Well Completion Date

April 5, 2013

 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 _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	14.00 IN	2.0 FT	52.0 FT	19.25 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
quick grout	21	Lb/gal	0.0 Ft	42 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure

Tremmy

Red Flint #120

42.0

64.0

SCREEN:

☐ Perforated pipe ☒ Manufactured
Diameter 14.00 Inches Length 12.0 FeetMaterial stainless steelSlot Size 120 Set From 52.0 Feet to 64.0 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? irrigation
 Lab to which water quality sample sent for analysis _____
Well Owner: Joe Arthur

Business Name: _____

Address: 46409 154th STCity, State, Zip: South Shore SD 57263

WELL LOG:

WELL LOG:		DEPTH	
	FORMATION	FROM	TO
top soil	black	0	2
sand	tan	2	14
clay	yellow	14	16
sand		16	64

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

Well No 2

45 09 35.4N

96 56 34.3W

Elev 1875

Kris Van Heuveln

 RECEIVED
 MAY - 3 2013
 WATER RIGHTS
 PROGRAM

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

Signature of License Representative: _____

Signature of Well Owner or Equitable Property Holder: _____

Date: 4-19-13

RECEIVED

JAN - 7 2014

WATER RIGHTS
PROGRAMNOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USEDate 12-12-13TO: Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181

FROM:

Joe Arthur

(name)

46409 154th St

(address)

South Shore S.D. 57243

(city, state, zip)

405-880-6449

(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. 7534-3 states that the water use system is to be constructed byFeb-19-2018

(date)

, and water is to be put to beneficial use by

Feb 19-2022

(date)

The water use system was completed on

August 19-2013

(date)

Applying the water to beneficial use was completed on

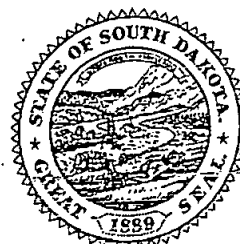
Aug 21-2013

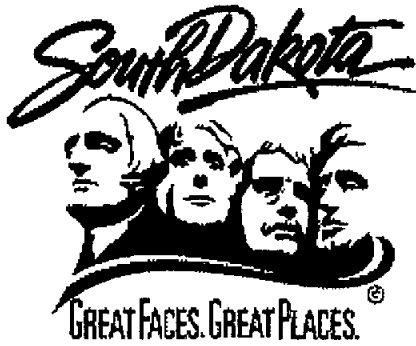
(date)

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

Joe Arthur

(signature)





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
PMB 2020
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
<http://denr.sd.gov>

January 8, 2014

7534-3

Joe Arthur
46409 154th St
South Shore SD 57263

Dear Mr. Arthur:

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 the irrigation system authorized under Water Permit No. 7534-3.

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,

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

SD EForm - 1621LD V1

11-02

Location <u>SW</u> <u>¼</u> <u>NW</u> <u>¼</u> Sec <u>34</u> Twp <u>120N</u> Rg <u>51W</u>		Well Owner: <u>Joe Arthur</u>	
County <u>Grant</u>		Business Name:	
Please mark well location with an "X"		Address: <u>46400 154th ST</u>	
		City, State, Zip: <u>South Shore SD 57263</u>	
Amended 3 17 2014		WELL LOG:	
		DEPTH	
		FORMATION	FROM TO
		top soil black	0 2
		sand tan	2 51
Well Completion Date <u>April 6, 2013</u>			
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: <u>mud rotary</u>			
CASING DATA: ☐ Steel ☒ Plastic ☐ Other			
If other describe _____			
PIPEWEIGHT	DIAMETER	FROM	TO HOLE DIAMETER
Lb/FT	IN	FT	FT IN
<u>14.00</u>	<u>1.5</u>	<u>39.0</u>	<u>19.25</u>
Lb/FT	IN	FT	FT IN
Lb/FT	IN	FT	FT IN
GROUTING DATA:			
Grout Type	No. of Sacks	Grout Weight	From To
<u>quick grout</u>	<u>6</u>	<u>Lb/gal</u>	<u>0.0</u> <u>29</u> Ft
<u>Red Flint #120</u>		<u>Lb/gal</u>	<u>29</u> <u>51</u> Ft
Describe grouting procedure <u>Tremay</u>			
SCREEN: ☐ Perforated pipe ☒ Manufactured			
Diameter	Inches	Length	Feet
<u>14.00</u>		<u>12.0</u>	
Material	<u>stainless steel</u>		
Slot Size	Set From	Feet to	
<u>120</u>	<u>39.0</u>	<u>51.0</u>	
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? <u>Irrigation</u>			
Lab to which water quality sample sent for analysis _____			
REMARKS:			
Well No <u>1</u>			
<u>45 09 19.5N</u>			
<u>96 56 23.8W</u>			
<u>Elev 1908</u>			
<u>Kris Van Heuveln</u>			
RECEIVED			
MAR 18 2014			
WATER RIGHTS PROGRAM			
This well was drilled under license # <u>463</u> and this report is true and accurate.			
Drilling firm: <u>Steffl Drilling & Pump Inc</u>			
Signature of License Representative: _____			
Signature of Well Owner or Equitable Property Holder: _____			
Date: <u>4-19-13</u>			

7534-3



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

January 4, 2022

7534-3

Joe Arthur
46409 154th St
South Shore SD 57263

Dear Mr. Arthur:

Thank you for sending in your irrigation questionnaires.

I read your note on the questionnaire for Water Permit No. 7534-3 indicating you were unsure what the permit was covered. The permit doesn't include any acreage. It was obtained to add a well and diversion rate to Water Right Nos. 2333-3 and 5382-3 to allow the existing pivots to run simultaneously.

This past year, a staff engineer conducted a field investigation of those permits for licensing purposes. Once the water license is issued, it should clarify which acres go with what pivots and will also help when filling out the annual questionnaires. Hopefully, this will take place in the next couple months.

Enclosed is a copy of Water Permit No. 7534-3 which will hopefully explain everything. If you have any further questions, please let me know.

Sincerely,

Genny McMath
Water Rights Program
605 773-3352
Genny.mcmath@state.sd.us

enclosure

7534-3

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 7534-3

I have this day, November 9, 2021 and May 17, 2023, made a thorough examination of the water use system constructed by Joe and John Arthur, 46409 154th St, South Shore, SD 57263 of Permit No. 7534-3, bearing the priority of November 27, 2012 authorizing the diversion of 1.78 cu. ft. per second of the waters of the Antelope Valley Aquifer for irrigation purposes, in Grant County.

A. Works used to divert the water:

Well Information: (See Section F) (FOR WELL #3 ONLY)

- 1) Well Drilling Firm: Lacey Well Drilling
- 2) No. of Wells 1
- 3) Depth(s) 64 feet
- 4) Well log is available Y

Casing:

- 1) Diameter 14 inches
- 2) Length 44 ??? feet
- 3) Type PVC

Screen:

- 1) Type Stainless steel
- 2) Length 20 ??? feet
- 3) Static water level 10 feet

Pump:

- 1) Make Unknown
- 2) Model Subersible
- 3) Size NA
- 4) Capacity 800 GPM

Motor:

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

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

- 1) Type SEE attached EXCEL SPREADSHEET
- 2) Size 8 inches
- 3) Length VARIOUS feet

C. Works used to apply water to beneficial use:

Center pivot:

- 1) Make Valley (NW), Zimmatic (NE), Zimmatic (SW), Valley (SE), Zimmatic (SW -Sec 35)
- 2) Overall length 1300, 1300, 1300, 1500 feet
- 3) Number of towers 7, 7, 7, 8, 5
- 4) End gun Y
- 5) Capacity 3150

TOTAL GPM

Chemigation Equipment:

- 1) Does chemigate Y

Comments: Uses commercially available chemigation equipment

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by Y
- 2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period Y
- 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: "WELL #3 LOCATION: From the SW corner Sec 34 T120N R51W, 3510 ft N & 535 ft E, Lat 45.15986 Long - 96.94290 (SW 1/4 NW 1/4 Sec 34). (SEE ATTACHED SPREADSHEET FOR MORE DETAILS)
2. The works are capable of diverting and conveying to the place of use 7.02 cu. ft. per second **TOTAL** of water which is to be used for IRRIGATION. Water has been put to beneficial use to the maximum extent as follows:

legal description/acreage

NW 1/4 NW 1/4 – 33 acres
 NE 1/4 NW 1/4 – 37 acres
 SE 1/4 NW 1/4 – 38 acres
 SW 1/4 NW 1/4 – 37 acres
 NW 1/4 NE 1/4 – 37 acres
 NE 1/4 NE 1/4 – 21 acres
 SE 1/4 NE 1/4 – 26 acres
 SW 1/4 NE 1/4 – 39 acres

NW 1/4 SW 1/4 – 38 acres
 NE 1/4 SW 1/4 – 39 acres
 SE 1/4 SW 1/4 – 20 acres
 SW 1/4 SW 1/4 – 20 acres
 NW 1/4 SE 1/4 – 37 acres
 NE 1/4 SE 1/4 – 40 acres
 SE 1/4 SE 1/4 – 37 acres
 SW 1/4 SE 1/4 – 33 acres

NW 1/4 SW 1/4 - 13 acres
 SW 1/4 SW 1/4 - 10 acres

Section 35, T120N, R51W

Section 34, T120N, R51W

comprising a total of 555 acres of land and the license should be issued for 7.02 cfs

3. The works are capable of diverting and conveying to the place of use 7.02 cu. ft. per second **TOTAL** of water which is to be used for irrigation.
4. All structures, wells and lands on map Y

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

The map was constructed with the aid of FSA imagery and the ArcMaps software.

The submitted map shows all wells and irrigated lands in Section 45 & 35 associated with Permits 2333-3, 5382-3 & 7534-3. However, this permit only addresses the addition of the well in the SW ¼ NW ¼ Sec 34. See the attached spreadsheet for more permit details.

Just note that it appears the total irrigated area of 502 acres reported in all the Irrigation Questionnaires is about 100 acres to small.

This well provides water to the NW pivot.

The address of the review materials is current. A contact cell phone number is 605/880-6469 for Joe Arthur and 605/880-0289 for Craig Arthur (son). I talked to Craig during the field visit.



Darrell W DeBoer
Water Rights Inspector
DANR, Water Rights Program

Date report completed: May 19, 2023

7/7/23 – Amanda Dewell called and spoke to Craig Arthur (son) to verify pump rates for the 5 wells that will be incorporated into this license. Craig said that Well #1 & #2 run together for a combined output of 800gpm, Well #3 pumps 750gpm, Well#4 pumps 850gpm, and Well#5 pumps 750gpm. A combined pump rate of 3,150gpm (7.02cfs).

WELL INFORMATION SUMMARY - PERMITS 2333-3, ~~2478-3~~, 5382-3 & 7534-3 (ARTHUR - GRANT COUNTY)

WELL NUMBER	<u>DISTANCE FROM SW CORNER</u>		LATITUDE	LONGITUDE	PUMP	HP	SUPPLIES WATER TO	8 inch PVC PIPE LENGTH
1	3,980 ft N	1,320 ft E	45.16148	-96.93986	SUBMERSIBLE	UNKNOWN	NE PIVOT - SEC 34	2,220 ft
2	3,940 ft N	1,320 ft E	45.16135	-96.93986	TURBINE	40	NE PIVOT - SEC 34	2,200 ft
3	3,510 ft N	575 ft E	45.15986	-96.94290	SUBMERSIBLE	UNKNOWN	NW PIVOT - SEC 34	910 ft
4	1,850 ft N	925 ft E	45.15525	-96.94139	TURBINE	85	SE PIVOT - SEC 34	3,215 ft
5	1,790 ft N	1,320 ft E	45.15542	-96.94002	TURBINE	50	SW PIVOT - SEC 34	20 ft
6	355 ft N	7,340 ft E	45.15105	-96.91655	SUBMERSIBLE	UNKNOWN	SW PIVOT - SEC 35	1,090 ft

NOTE: PUMP 2 IS 40 FEET SOUTH OF PUMP 1

WELL 3 (PERMIT 7534-3): ONLY HAVE WELL LOG - NO WELL DETAILS

WELL 4 (PERMIT 5382-3): ONLY WELL WITH LOG & CASING, ETC. INFO

Diversion Point Location

From the SW corner of
Sec 34 T120N-R51W
Well 1 - 3980 ft N & 1320 ft W
Lat 45.16148 Long -96.93986
Well 2 - 3940 ft N & 1320 ft W
Lat 45.16135 Long -96.93986
Well 3 - 3510 ft N & 575 ft W
Lat 45.15986 Long -96.94290
Well 4 - 1850 ft N & 925 ft W
Lat 45.15525 Long -96.94139
Well 5 - 1790 ft N & 1320 ft W
Lat 45.15542 Long -96.94002

Irrigated Land

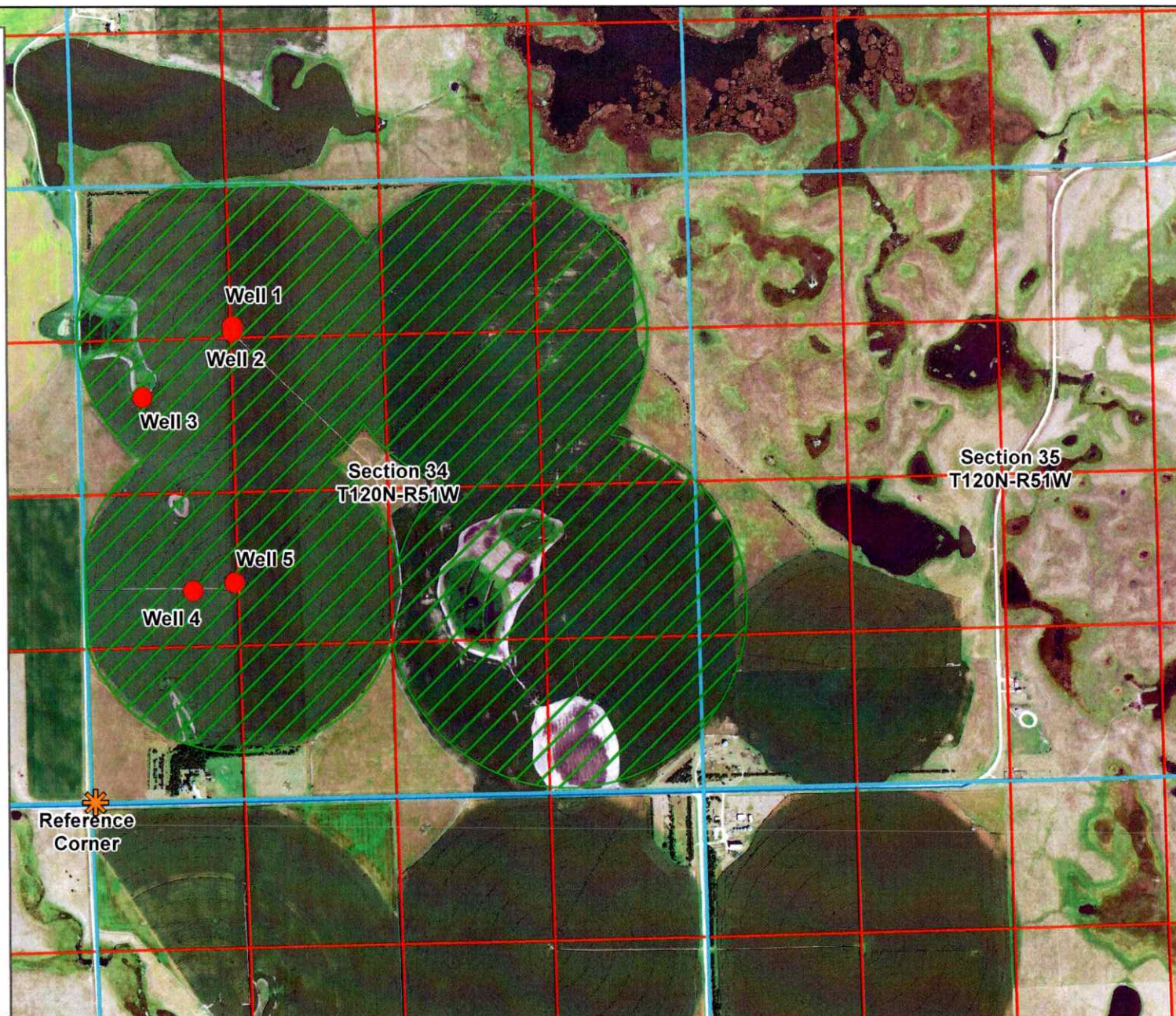
Sec 34 T120N-R51W
NW1/4 NW 1/4 - 33.0 ac
NE 1/4 NW1/4 - 37.0 ac
SE1/4 NW1/4 - 38.0 ac
SW1/4 NW1/4 - 37.0 ac

NW1/4 NE 1/4 - 37.0 ac
NE 1/4 NE1/4 - 21.0 ac
SE1/4 NE1/4 - 26.0 ac
SW1/4 NE1/4 - 39.0 ac

NW1/4 SE 1/4 - 37.0 ac
NE 1/4 SE1/4 - 40.0 ac
SE1/4 SE1/4 - 37.0 ac
SW1/4 SE1/4 - 33.0 ac

NW1/4 SW1/4 - 38.0 ac
NE 1/4 SW1/4 - 39.0 ac
SE1/4 SW1/4 - 20.0 ac
SW1/4 SW1/4 - 20.0 ac

Sec 35 T120N-R51W
NW1/4 SW 1/4 - 13.0 ac
SW1/4 SW1/4 - 10.0 ac



0 950 1,900 3,800 5,700 7,600 Feet



DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES
JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

JUL 14 2023

Joe/John Arthur
46409 154th St
South Shore SD 57263

7534-3

Dear Sirs:

Enclosed is Water License No. 7534-3. 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, State Water Laws provide that you have a continuing right to use the water. If you have any questions, please contact our office.

Sincerely,

Eric Gronlund, Chief Engineer
Water Rights Program
(605) 773-3352

NOTE: The applicable portions of Water Right No. 2333-3 and Water Permit No. 5382-3 have been incorporated into Water Right No. 7534-3.

enclosures

STATE OF SOUTH DAKOTA
WATER LICENSE NO. 7534-3

(1) Joe/ John Arthur; 46409 154th St, South Shore SD 57263, made Application No. 7534-3, November 27, 2012, for a water permit to divert an additional 1.78 cubic feet of water per second, with no additional acreage, from groundwater, one new well (Antelope Valley Aquifer), Grant County, South Dakota for irrigation purposes. Permit No. 7534-3, with a priority date of November 27, 2012, was approved February 19, 2013, and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before February 19, 2018, and for the application to beneficial use of water on or before February 19, 2022.

The applicable portions of Water Right No. 2333-3 and Water Permit No. 5382-3 are now incorporated into this water license. Water Permit No. 7534-3 authorized the drilling of a fifth diversion point but no additional diversion rate was needed.

(2) It is certified that the permit holders have 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 7.02 cubic feet of water per second for beneficial use. The locations of the diversion points are:

- Well #1: 3,980 ft N & 1,320 ft E of the SW corner of Section 34, T120N, R51W (NW $\frac{1}{4}$ NW $\frac{1}{4}$) (Latitude 45.16148 Longitude -96.93986)
- Well #2: 3,940 ft N & 1,320 ft E of the SW corner of Section 34, T120N, R51W (SW $\frac{1}{4}$ NW $\frac{1}{4}$) (Latitude 45.16135 Longitude -96.93986)
- Well #3: 3,510 ft N & 575 ft E of the SW corner of Section 34, T120N, R51W (SW $\frac{1}{4}$ NW $\frac{1}{4}$) (Latitude 45.15986 Longitude -96.94290)
- Well #4: 1,850 ft N & 925 ft E of the SW corner of Section 34, T120N, R51W (NW $\frac{1}{4}$ SW $\frac{1}{4}$) (Latitude 45.15525 Longitude -96.94139)
- Well #5: 1,790 ft N & 1,320 ft E of the SW corner of Section 34, T120N, R51W (NW $\frac{1}{4}$ SW $\frac{1}{4}$) (Latitude 45.15542 Longitude -96.94002)

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

Section 34, T120N, R51W

NW $\frac{1}{4}$ NW $\frac{1}{4}$	33.0 acres	NW $\frac{1}{4}$ SW $\frac{1}{4}$	38.0 acres
NE $\frac{1}{4}$ NW $\frac{1}{4}$	37.0 acres	NE $\frac{1}{4}$ SW $\frac{1}{4}$	39.0 acres
SE $\frac{1}{4}$ NW $\frac{1}{4}$	38.0 acres	SE $\frac{1}{4}$ SW $\frac{1}{4}$	20.0 acres
SW $\frac{1}{4}$ NW $\frac{1}{4}$	37.0 acres	SW $\frac{1}{4}$ SW $\frac{1}{4}$	20.0 acres
NW $\frac{1}{4}$ NE $\frac{1}{4}$	37.0 acres	NW $\frac{1}{4}$ SE $\frac{1}{4}$	37.0 acres
NE $\frac{1}{4}$ NE $\frac{1}{4}$	21.0 acres	NE $\frac{1}{4}$ SE $\frac{1}{4}$	40.0 acres
SE $\frac{1}{4}$ NE $\frac{1}{4}$	26.0 acres	SE $\frac{1}{4}$ SE $\frac{1}{4}$	37.0 acres
SW $\frac{1}{4}$ NE $\frac{1}{4}$	39.0 acres	SW $\frac{1}{4}$ SE $\frac{1}{4}$	33.0 acres

Section 35, T120N, R51W

NW $\frac{1}{4}$ SW $\frac{1}{4}$	13.0 acres	SW $\frac{1}{4}$ SW $\frac{1}{4}$	10.0 acres
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TOTAL: 555.0 acres

continued

(4) Pursuant to South Dakota Water Law 46-5-30.1 Joe & Jan Arthur, the holders and/or owners of Water Right No. 7534-3 is issued a license to appropriate water, the right to use 7.02 cubic feet of water per second from groundwater, five wells (Antelope Valley Aquifer) with priority dates of January 10, 1975 (established by Right No. 2333-3) for 4.0 cfs and 500 acres, and January 22, 1990 (established by Permit No. 5382-3) for 3.02 cfs and 55 acres, 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. 7534-3 and subject to the following qualifications:

1. The wells approved under this water right will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owners under this water right shall control their 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. 7534-3 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.
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, Water Right No. 2333-3 and Permit Nos. 5382-3 and 7534-3 authorizes a maximum diversion rate of 8.92 cfs for the irrigation of 555 acres with an annual volume not to exceed 2 acre feet of water per acre per year. *(The diversion rate was reduced from 8.92 cfs to 7.02 cfs based on the system as developed and therefore no longer exceeds the statutory limit for irrigation of 555 acre.)*
4. This Water Right is approved subject to the irrigation water use questionnaire being submitted each year.

Eric Gronlund

Eric Gronlund, Chief Engineer
Water Rights Program
Department of Agriculture and Natural Resources

JUL 14 2023

date

