

**WATER PERMIT NO. 7926-3**

Name of Applicant: **Randy Kienow**

Address: **38286 142<sup>nd</sup> St, Aberdeen SD 57401** Phone: **605 380-0656**

Amount of Water Claimed: **2.22 cfs** Total Acres: **480 acres**

Source of Water Supply: **groundwater (2 wells)**

Water to be used for: **irrigation** County: **Brown**

Type of Waste Disposal System:

Location: **5 miles west of Warner**

**PRIORITY** Date Received: **11-20-13** Application/License Fee: **\$ 1350**

Corrected Application Received: Period of Annual Use: **April 1 – October 1**

Remarks:

Diversion Point: **SW 1/4 SE 1/4 Sec 31-T122N-R64W**

Land to be Irrigated: **E 1/2 NW 1/4, NE 1/4, S 1/2**  
**Sec 31-T122N-R64W**

Depth of Well: **120 feet**

Well Driller:

Remarks:

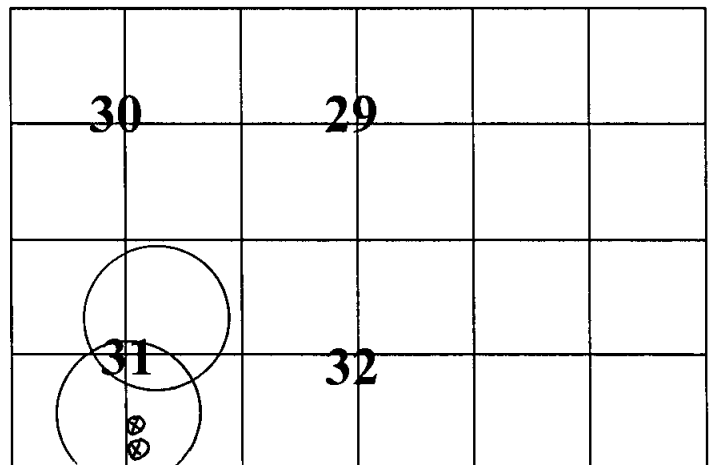
Type of Map: **aerial**

Prepared by:

Reviewed and the Number Assigned on: **11-20-13**

By: **Karen Schlaak**

Notice of Hearing - date to intervene: \_\_\_\_\_



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

|                                                                                                                 |                                                                                     |
|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Mail to:<br>PMB 2020<br>DENR - Water Rights<br>523 E Capitol Ave<br>Pierre, SD 57501-3182<br>ph. (605) 773-3352 | No. <u>7926-3</u> (office use only) Hydrologic Unit <u>10160003</u>                 |
|                                                                                                                 | Basin <u>James River</u>                                                            |
|                                                                                                                 | Newspaper <u>American News Box 4430</u><br><u>Aberdeen S.D. 57402. 605-225-4100</u> |
|                                                                                                                 |                                                                                     |

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## Application For Permit To Appropriate Water For Irrigation

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

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

- Name to Appear on Irrigation Permit Bandy Kienow  
(check one) ☒ Owner ☐ Tenant/lessee ☐ Owner's Legal Agent  
(name and complete address if different than above name)  
Mailing Address 38286 142<sup>nd</sup> St Aberdeen SD 57401  
(Address) (City) (State) (Zip Code)  
Home Phone 229-0439 Cell 380-0656 Email \_\_\_\_\_
- Amount of water claimed 2.22 \*CFS or 1000 \*\*GPM      \*\*\*AF Total Acreage 480  
(\*Cubic Feet per Second) (\*\*Gallons per Minute) (\*\*Acre Feet - storage capacity of dam/dugout or annual use if applicable)
- Source of water supply Wells
- Location of point of diversion 2 Wells in SW 1/4 SE 1/4 section 31 T122N R64W  
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)  
S31 County Brown
- County or counties where water will be used Brown
- Annual period during which water is to be used April 1<sup>st</sup> to Oct 30<sup>th</sup>
- 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>See Attached</u> |       |                  |       |
|                     |       |                  |       |
|                     |       |                  |       |
|                     |       |                  |       |

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

Pump from two wells through pipe to two center pivots

I, Bandy Kienow, the applicant, certify that I have read this application, have examined the attached map, and that the matters stated are true.

RANDY KIENOW  
ABERDEEN, SD 57401

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| LAND DESCRIPTION         | ACRES    |
|--------------------------|----------|
| NE ¼ NW ¼ T122N R64W S31 | 40 ACRES |
| SE ¼ NW ¼ T122N R64W S31 | 40 ACRES |
| NW ¼ NE ¼ T122N R64W S31 | 40 ACRES |
| NE ¼ NE ¼ T122N R64W S31 | 40 ACRES |
| SW ¼ NE ¼ T122N R64W S31 | 40 ACRES |
| SE ¼ NE ¼ T122N R64W S31 | 40 ACRES |
| NW ¼ SW ¼ T122N R64W S31 | 20 ACRES |
| NE ¼ SW ¼ T122N R64W S31 | 40 ACRES |
| SW ¼ SW ¼ T122N R64W S31 | 20 ACRES |
| SE ¼ SW ¼ T122N R64W S31 | 40 ACRES |
| NW ¼ SE ¼ T122N R64W S31 | 40 ACRES |
| NE ¼ SE ¼ T122N R64W S31 | 20 ACRES |
| SW ¼ SE ¼ T122N R64W S31 | 40 ACRES |
| SE ¼ SE ¼ T122N R64W S31 | 20 ACRES |

**SOUTH DAKOTA  
WATER PERMIT NO. 7926-3**

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Date of first receipt of application November 20, 2013.

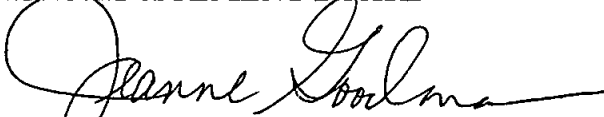
The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7926-3 to Randy Kienow, 38286 142<sup>nd</sup> St, Aberdeen SD 57401 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 7926-3 appropriates 2.22 cubic feet of water per second from two wells to be completed into the Middle James:Aberdeen Aquifer (120 feet deep) located in the SW 1/4 SE 1/4 Section 31 for irrigation of 480 acres located in the E 1/2 NW 1/4, NE 1/4, S 1/2 Section 31; all in T122N-R64W.
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 30.
3. The date from which applicant may claim right is November 20, 2013.
4. The date of approval of Permit No. 7926-3 is January 27, 2014.
5. One-fifth of the construction is to be completed on or before July 27, 2016.
6. All construction is to be completed on or before January 27, 2019.
7. Water is to be put to beneficial use on or before January 27, 2023.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

**QUALIFICATIONS**

1. The wells approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The wells authorized by Permit No. 7926-3 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. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

**WATER-MANAGEMENT BOARD**

By: 

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

FEB 11 2014

date



(type or print)

a) If new wells, how many 2 Have test holes been drilled ☒ Yes ☐ No Drilled by Stretch's Well Service  
(if yes, please provide copies of logs)

b) If existing wells, how many \_\_\_\_ Provide copy of log(s), if available. Drilled by \_\_\_\_\_

c) Well Depth 120' Depth to Top of Water Bearing Material 70 Depth to Water from Surface 17.6'

d ) Distance to nearest existing domestic well:

| On applicant's property                                                      | On property owned by others                                                  |
|------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| <p>1. <input type="checkbox"/> No</p> <p>2. <input type="checkbox"/> Yes</p> | <p>1. <input type="checkbox"/> No</p> <p>2. <input type="checkbox"/> Yes</p> |

## 2. Wastewater Disposal System Information

a) Type of System (i.e. septic tank, drain field)

| b ) System Capacity (gallons ) | Year Constructed |
|--------------------------------|------------------|
| 1000                           | 1960             |
| 2000                           | 1965             |
| 3000                           | 1970             |
| 4000                           | 1975             |
| 5000                           | 1980             |
| 6000                           | 1985             |
| 7000                           | 1990             |
| 8000                           | 1995             |
| 9000                           | 2000             |
| 10000                          | 2005             |
| 11000                          | 2010             |
| 12000                          | 2015             |
| 13000                          | 2020             |
| 14000                          | 2025             |
| 15000                          | 2030             |
| 16000                          | 2035             |
| 17000                          | 2040             |
| 18000                          | 2045             |
| 19000                          | 2050             |
| 20000                          | 2055             |
| 21000                          | 2060             |
| 22000                          | 2065             |
| 23000                          | 2070             |
| 24000                          | 2075             |
| 25000                          | 2080             |
| 26000                          | 2085             |
| 27000                          | 2090             |
| 28000                          | 2095             |
| 29000                          | 2100             |
| 30000                          | 2105             |
| 31000                          | 2110             |
| 32000                          | 2115             |
| 33000                          | 2120             |
| 34000                          | 2125             |
| 35000                          | 2130             |
| 36000                          | 2135             |
| 37000                          | 2140             |
| 38000                          | 2145             |
| 39000                          | 2150             |
| 40000                          | 2155             |
| 41000                          | 2160             |
| 42000                          | 2165             |
| 43000                          | 2170             |
| 44000                          | 2175             |
| 45000                          | 2180             |
| 46000                          | 2185             |
| 47000                          | 2190             |
| 48000                          | 2195             |
| 49000                          | 2200             |
| 50000                          | 2205             |
| 51000                          | 2210             |
| 52000                          | 2215             |
| 53000                          | 2220             |
| 54000                          | 2225             |
| 55000                          | 2230             |
| 56000                          | 2235             |
| 57000                          | 2240             |
| 58000                          | 2245             |
| 59000                          | 2250             |
| 60000                          | 2255             |
| 61000                          | 2260             |
| 62000                          | 2265             |
| 63000                          | 2270             |
| 64000                          | 2275             |
| 65000                          | 2280             |
| 66000                          | 2285             |
| 67000                          | 2290             |
| 68000                          | 2295             |
| 69000                          | 2300             |
| 70000                          | 2305             |
| 71000                          | 2310             |
| 72000                          | 2315             |
| 73000                          | 2320             |
| 74000                          | 2325             |
| 75000                          | 2330             |
| 76000                          | 2335             |
| 77000                          | 2340             |
| 78000                          | 2345             |
| 79000                          | 2350             |
| 80000                          | 2355             |
| 81000                          | 2360             |
| 82000                          | 2365             |
| 83000                          | 2370             |
| 84000                          | 2375             |
| 85000                          | 2380             |
| 86000                          | 2385             |
| 87000                          | 2390             |
| 88000                          | 2395             |
| 89000                          | 2400             |
| 90000                          | 2405             |
| 91000                          | 2410             |
| 92000                          | 2415             |
| 93000                          | 2420             |
| 94000                          | 2425             |
| 95000                          | 2430             |
| 96000                          | 2435             |
| 97000                          | 2440             |
| 98000                          | 2445             |
| 99000                          | 2450             |
| 100000                         | 2455             |
| 101000                         | 2460             |
| 102000                         | 2465             |
| 103000                         | 2470             |
| 104000                         | 2475             |
| 105000                         | 2480             |
| 106000                         | 2485             |
| 107000                         | 2490             |
| 108000                         | 2495             |
| 109000                         | 2500             |
| 110000                         | 2505             |
| 111000                         | 2510             |
| 112000                         | 2515             |
| 113000                         | 2520             |
| 114000                         | 2525             |
| 115000                         | 2530             |
| 116000                         | 2535             |
| 117000                         | 2540             |
| 118000                         | 2545             |
| 119000                         | 2550             |
| 120000                         | 2555             |
| 121000                         | 2560             |
| 122000                         | 2565             |
| 123000                         | 2570             |
| 124000                         | 2575             |
| 125000                         | 2580             |
| 126000                         | 2585             |
| 127000                         | 2590             |
| 128000                         | 2595             |
| 129000                         | 2600             |
| 130000                         | 2605             |
| 131000                         | 2610             |
| 132000                         | 2615             |
| 133000                         | 2620             |
| 134000                         | 2625             |
| 135000                         | 2630             |
| 136000                         | 2635             |
| 137000                         | 2640             |
| 138000                         | 2645             |
| 139000                         | 2650             |
| 140000                         | 2655             |
| 141000                         | 2660             |
| 142000                         | 2665             |
| 143000                         | 2670             |
| 144000                         |                  |

c) Connected to the City of Sanitary System

### 3. Dugout Information

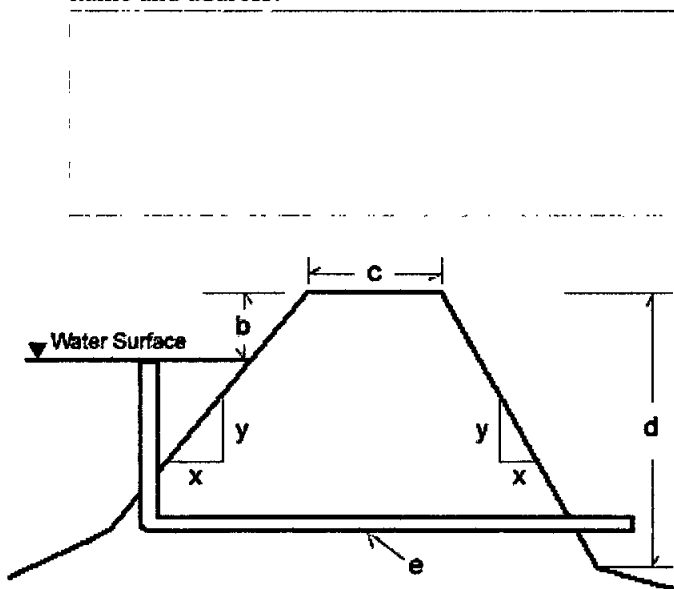
a) Surface Dimensions Depth

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 |
|----------------------------|-------|
|----------------------------|-------|

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LAND OWNER OF NW QUARTER ESTER WILSON

RANDY KIENOW

1324 12TH AVE SE APT 41 ABERDEEN SD

T122N R64W S31

LAND OWNER OF SW QUARTER DENNIS SERFLING

T122N R64W S31

616 N ARCH ST ABERDEEN SD

**VALLEY**

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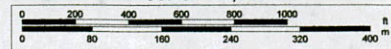
Brown County FSA Office  
524 Enterprise St. S., Ste. 200  
Aberdeen, SD 57401-0906

TN

MN (4.6°E)

*Dennis Serfling*  
11/19/13

Scale 1 : 8,800



1" = 733.3 ft

Data Zoom 14-5

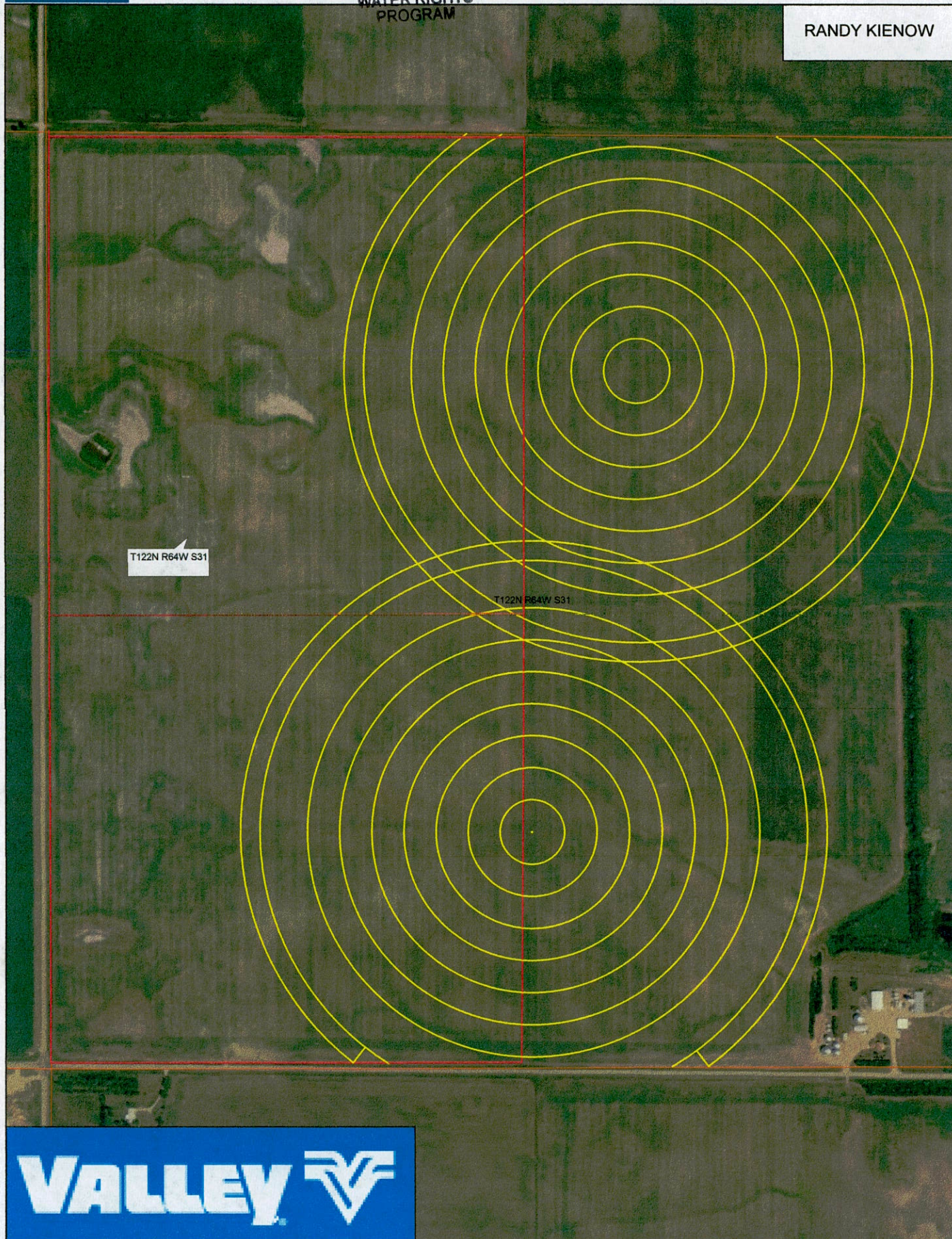
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RANDY KIENOW



**VALLEY** 

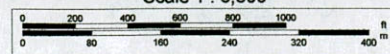
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Scale 1 : 8,800



1" = 733.3 ft

Data Zoom 14-5

| Stretch's Well Service Inc. Drillers Log (605)266-2128 |       |       |          |       | Page No. |         |
|--------------------------------------------------------|-------|-------|----------|-------|----------|---------|
| Job Name                                               |       |       | Location |       | Date     | Rig No. |
| Jt. #                                                  | Depth | Time  | Remarks  |       |          |         |
|                                                        |       | 9.25  | W L      | 17.60 |          |         |
|                                                        |       |       | PL       | DD    | GPM      | GPF     |
|                                                        | 9.30  | 18.75 | 1.15     | 10    |          |         |
|                                                        | 9.35  | 18.70 | 1.10     | 10    |          |         |
|                                                        | 9.40  | 18.75 | 1.15     | 10    |          |         |
|                                                        | 9.45  | 18.80 | 1.20     | 10    |          |         |
|                                                        | 9.50  | 18.85 | 1.25     | 10    |          |         |
|                                                        | 9.55  | 18.85 | 1.25     | 10    |          |         |
|                                                        | 10.00 | 18.85 | 1.25     | 10    |          |         |
|                                                        | +     |       |          |       |          |         |
|                                                        | 10.05 | 19.10 | 1.50     | 20    |          |         |
|                                                        | 10.10 | 20.15 | 2.55     | 20    |          |         |
|                                                        | 10.15 | 20.20 | 2.60     | 20    |          |         |
|                                                        | 10.20 | 20.20 | 2.60     | 20    |          |         |
|                                                        | 10.25 | 20.20 | 2.60     | 20    |          |         |
|                                                        | 10.30 | 20.20 | 2.60     | 20    |          |         |
|                                                        | 10.35 | 22.20 | 4.60     | 30    |          |         |
|                                                        | 10.40 | 22.30 | 4.70     | 30    |          |         |
|                                                        | 10.45 | 22.45 | 4.85     | 30    |          |         |
|                                                        | 10.50 | 22.50 | 4.90     | 30    |          |         |
|                                                        | 11.00 | 22.55 | 4.95     | 30    |          |         |
|                                                        | 11.10 | 22.60 | 5        | 30    |          |         |
|                                                        | 11.20 | 22.60 | 5        | 30    |          |         |
|                                                        | 11.30 | 22.60 | 5        | 30    |          |         |

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Stretch's Well Service Inc. Drillers Log (605)266-2128

Page No.

| Job Name     |         |       | Location                                | Date                                      | Rig No. | Foreman     |
|--------------|---------|-------|-----------------------------------------|-------------------------------------------|---------|-------------|
| Randy Kiebow |         |       | WST Waffner                             | 11-8-2013                                 |         | Dale Kiebow |
| #            | Depth   | Time  | Remarks                                 |                                           |         |             |
| 1            | 0-15    | 10.45 | CL-3                                    | TOP SOIL mixed Black Brown                |         |             |
| 2            | 15-30   | 11.07 | 3-6                                     | Dark yellow clay                          |         |             |
| 3            | 30-45   | 11.31 | 6-7                                     | Fine sand washed through                  |         |             |
| 4            | 45-60   | 11.48 | 7-15                                    | Dark yellow sandy clay with gravel layers |         |             |
| 5            | 60-75   | 12.35 | 15-20                                   | Fine sand                                 |         |             |
| 6            | 75-90   | 1.03  | 20-25                                   | Fine sand with thin clay layers 23-62     |         |             |
| 7            | 90-105  | 1.17  | 25-30                                   | Fine sand Gray                            |         |             |
| 8            | 105-120 | 1.29  | 30-34                                   | Fine sand Dirty                           |         |             |
| 9            | 120-135 | 1.45  | 34-36                                   | Coal                                      |         |             |
|              |         |       | 36-61                                   | Blue silty clay with pebbles              |         |             |
|              |         |       | 61-64                                   | Clay with sand lenses                     |         |             |
|              |         |       | 64-69                                   | Silty clay                                |         |             |
|              |         |       | 69-70                                   | Sand                                      |         |             |
|              |         |       | 70-74                                   | Silty clay                                |         |             |
|              |         |       | 74-80                                   | Sand                                      |         |             |
|              |         |       | 80-85                                   | Sand                                      |         |             |
|              |         |       | 85-90                                   | Sand drilled better                       |         |             |
|              |         |       | 90-95                                   | Sand with coarse spots                    |         |             |
|              |         |       | 95-100                                  | Sand with coarse spots                    |         |             |
|              |         |       | 100-105                                 | Sand                                      |         |             |
|              |         |       | 103-106                                 | Clay with sand                            |         |             |
| 1            | 0-15    | K     | 106-110                                 | Sand little coal                          |         |             |
| 2            | 15-25   | DC    | 110-115                                 | Sand                                      |         |             |
| 3            | 25-42   | R     | 115-120                                 | Sand little clay                          |         |             |
| 4            | 40-55   | R     | 120-123                                 | Sand little shale                         |         |             |
| 5            | 55-70   | R     | 123-135                                 | lite Gray shale                           |         |             |
| 6            | 70-85   | R     |                                         |                                           |         |             |
| 7            | 85-100  | R     | 79' 4" PVC well casing                  | WD-117                                    |         |             |
| 8            | 100-115 | R     | 40' 4" 25 slot PVC screens - w/ 1760    |                                           |         |             |
| 9            | 115-120 |       | Pea rock for pack                       |                                           |         |             |
|              |         |       | 1 1/2 bags bentonite - 1- 4" cap on top |                                           |         |             |
|              |         |       | Open bottom                             |                                           |         |             |
|              |         |       | 1 bag EPI Plug                          |                                           |         |             |

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Get to 30 hole seal  
Put in short surface pipe

74 New Piles

Stretch's Well Service Inc. Drillers Log (605)266-2128

Page No.

Randy Klenow

Job Name

Location

11-12-13  
Date

Rig No.

Dale  
reyn Foreman

| Jt. # | Depth   | Time | Remarks                                         |                   |
|-------|---------|------|-------------------------------------------------|-------------------|
| 1     | 0-15    | 1.03 | GL-3                                            |                   |
| 2     | 15-30   | 1.31 | 3-15 Silty yellow clay with stones              | Sand lenses       |
| 3     | 30-45   | 1.40 | 15-20 Fine sand                                 |                   |
| 4     | 45-60   | 2.00 | 20-25 Fine sand with dirty sandy gray clay      |                   |
| 5     | 60-75   | 2.20 | 25-34 Dirty fine sand                           |                   |
| 6     | 75-90   | 2.44 | 34-62 Blue silty sandy clay                     |                   |
| 7     | 90-105  | 3.04 | 62-66 Blue silty clay with sand lenses - stones |                   |
| 8     | 105-120 | 3.24 | 66-73 Blue silty clay                           |                   |
| 9     | 120-135 | 3.41 | <del>73-78</del> Lime stone 73-94               |                   |
|       |         |      | 74-78 Blue silty clay                           |                   |
|       |         |      | 78-85 Sand                                      | took little (120) |
|       |         |      | 85-90 Sand                                      |                   |
|       |         |      | 90-92 Sand                                      |                   |
|       |         |      | 92-95 Sand Little cursor Little con.            |                   |
|       |         |      | 95-97 Sand                                      |                   |
|       |         |      | 97-100 Blue silty                               |                   |
|       |         |      | 100-105 Sand with clay in it                    |                   |
|       |         |      | 105-110 Sand                                    |                   |
|       |         |      | 110-115 Sand                                    |                   |
|       |         |      | 115-120 Sand with little con. drilled dirty     |                   |
|       |         |      | 120-123 Sand with shale                         |                   |
|       |         |      | 123-135 Shale                                   |                   |
|       |         |      | 1/2 bentonite                                   |                   |

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2-85-90

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## WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 11/20, 20 13

RECEIVED OF Kienow Farms Inc 38286 142nd St Aberdeen SD 57401

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

|                                                                                                                        |       |         |
|------------------------------------------------------------------------------------------------------------------------|-------|---------|
| Fee for Application for Permit No. <u>7926-3</u> to Appropriate Water, to construct and to put water to beneficial use | 1350  | 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>7926-3</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 | 1550 00 |

No. **06493**

By *Joann Gouldman*  
Chief Engineer



**DEPARTMENT OF ENVIRONMENT  
and NATURAL RESOURCES**

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



**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT  
APPLICATION NO. 7926-3, Randy Kienow**

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. 7926-3, Randy Kienow, 38286 142<sup>nd</sup> Street, Aberdeen SD 57401.

The Chief Engineer is recommending APPROVAL of Application No. 7926-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. The wells approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The wells authorized by Permit No. 7926-3 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. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Jeanne Goodman, Chief Engineer  
January 6, 2014

REPORT TO THE CHIEF ENGINEER  
ON  
WATER PERMIT APPLICATION NO. 7926-3  
RANDY KIENOW  
JANUARY 06, 2014

Water Permit Application No. 7926-3 proposes to appropriate water at a maximum diversion rate of 2.22 cubic feet of water per second (cfs) from two wells to be completed into the Middle James: Aberdeen aquifer. The wells are expected to be 120 feet deep and are to be located in the SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  Section 31 for the irrigation of 480 acres located in the E  $\frac{1}{2}$  NW  $\frac{1}{4}$ , NE  $\frac{1}{4}$ , and the S  $\frac{1}{2}$  Section 31; all in T122N-R64W in Brown County.

**AQUIFER: Aberdeen management unit of the Middle James aquifer (MJ:A)**

**AQUIFER CHARACTERISTICS:**

The Middle James: Aberdeen aquifer is composed of buried outwash (sand and gravel) that is predominantly under confined conditions (Koch and Bradford, 1976). The Middle James: Aberdeen aquifer underlies approximately 118,800 acres and contains approximately 356,000 acre-feet (ac-ft) of recoverable water in storage in Brown County with a small yet to be defined area in Spink County (Hedges et. al, 1982). In Spink County, Benson (1997) stated the Middle James: Aberdeen underlies approximately 160 square miles (102,400 acres). The water in the aquifer generally moves west to east (Koch and Bradford, 1976). The aquifer has an average saturated thickness of 20 feet but may be up to 100 feet thick in Brown County (Koch and Bradford, 1976). The aquifer can be encountered from 40 ft below ground surface in lowlands to 250 ft below grade at higher land-surface elevations (Koch and Bradford, 1976). In the area of this application the aquifer may be overlain by the Elm aquifer (Koch and Bradford, 1976), but there does not appear to be an obvious hydraulic connection between the aquifers in this area (Water Rights, 2013a).

The test hole information submitted with this application identified sand from 6 ft to 34 feet below grade (Elm: South Brown aquifer) and more sand from 74 ft below ground surface to 123 feet below grade (Middle James: Aberdeen aquifer). The static water level was 17.6 feet below grade in November, 2013. The aquifer is under confined conditions at the well site.

**South Dakota Codified Law (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 this 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 effects on existing rights from the aquifer that are pertinent to this application.

**WATER AVAILABILITY:**

This application proposes to appropriate water from the Middle James: Aberdeen aquifer. Actual water use, if this application is approved, will likely be less than 960 acre-feet annually (ac-ft/yr). The probability of unappropriated water available from the aquifer can be evaluated by

considering SDCL 46-6-3.1, which requires “No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source.” If the source of the water is older or lower than the Greenhorn Formation and a public water system has applied for a permit, the Board need not consider the recharge/withdrawal issue. In this case, the aquifer is not stratigraphically lower than the Greenhorn Formation and the applicant is not a public water system.

### **Hydrologic Budget:**

#### *Recharge:*

Recharge to the Middle James: Aberdeen is by percolation of precipitation through overlying lake silts, outwash, and till (Koch and Bradford, 1976). According to Koch and Bradford (1976), the largest source of recharge is probably from the Elm aquifer where it overlies the Middle James aquifer. Recharge to the Middle James: Aberdeen has yet to be quantified. However, according to Hedges and others (1985), “for management and development programs the minimum recharge rate to confined aquifers is estimated to be 0.15 inches per year and the maximum rate is 0.60 inches per year.” Using that range, the annual recharge to the aquifer should be between 1,485 ac-ft and 5,940 ac-ft in Brown County.

#### *Discharge:*

The Middle James: Aberdeen aquifer discharges through percolation into the Deep James aquifer, flow into the Lake Dakota sediments, flow into adjacent till, and well withdrawals (Koch and Bradford, 1976). There are 11 water rights and three water permits appropriating water from the Middle James: Aberdeen aquifer (Water Rights, 2013b). All of the water rights/permits are for irrigation, except Water Right No. 4288-3 for Warner Sanitary District, which is for municipal purposes (Water Rights, 2013b). The estimated annual water use by Water Right No. 4288-3 is 95.56 ac-ft/yr. This estimate is based on pumping 60 percent of the time at the maximum permitted diversion rate. However, the Warner Sanitary District is currently served by WEB Rural Water and in 2001 reported pumping only 200,000 gallons (0.61 ac-ft) from the well authorized by Water Permit No. 4288-3 (Friedeman, 2014). Table 1 shows a summary of the irrigation withdrawal from the Middle James: Aberdeen aquifer as reported to the SD DENR-Water Rights Program through annual irrigation questionnaires. The number of permits and the water appropriated has been fairly constant over the period of record.

|            | <b>No. Permits<br/>Reporting</b> | <b>Appropriation<br/>(ac-ft/yr)</b> | <b>Pumpage<br/>(ac-ft/yr)</b> |
|------------|----------------------------------|-------------------------------------|-------------------------------|
| <b>Min</b> | 9                                | 4598                                | 264.27                        |
| <b>Max</b> | 15                               | 9488                                | 3482.4                        |
| <b>Avg</b> | 11.76                            | 7184.26                             | 1539.75                       |

Table 1- Summary of irrigation water use from the Middle James: Aberdeen aquifer (Water Rights (1979-2013))

The estimated average annual withdrawal by appropriative rights is near the bottom end of the range of recharge estimates. The estimated maximum annual withdrawal by appropriative rights is within the range of recharge estimates. Therefore, there is a reasonable probability that there is unappropriated water available for this proposed appropriation.

**Observation Well Data:**

Administrative Rule of South Dakota Section 74:02:05:07 requires that the Water Management Board shall rely upon the record of observation well measurements to determine that the quantity of water withdrawn annually from the aquifer does not exceed the estimated average annual recharge of the aquifer.

The DENR-Water Rights Program monitors 10 observation wells completed into the Middle James: Aberdeen aquifer (Water Rights, 2013a). Water levels in the observation wells show response to climatic conditions. The water levels rise (recharge) during wet years and gradually decline during dry years. The hydrographs show the effects of pumping, but it does not appear to be significant over the period of record. The climatic effects on water level mask the temporal impacts of water withdrawal. Therefore, recharge to and natural discharge from the Middle James: Aberdeen aquifer significantly exceeds pumping. Recognizing that natural discharge can be captured for pumping, there is a reasonable probability that unappropriated water is available for this proposed appropriation.

The Hanson County Dairy decision (Memorandum Decision, 2012) stated that whether there is enough recharge for the proposed appropriation needs to be considered. The hydrologic budget shows that average annual withdrawal is at the lower end of the estimated average annual recharge range. The hydrographs for the observation wells show that, in general, the aquifer is readily recharged. Therefore, there is a reasonable probability that unappropriated water is available for this proposed appropriation.

The nearest of the observation wells and water rights/permits to the proposed well sites are shown in Figure 1, a map of the area around the proposed well sites. The hydrographs for observation wells BN-82B, BN-77I, and BN-77H, are shown in Figures 2, 3, and 4, respectively. The hydrographs, in general, show similar hydrologic conditions to the other observation wells throughout the aquifer and are representative of the aquifer.

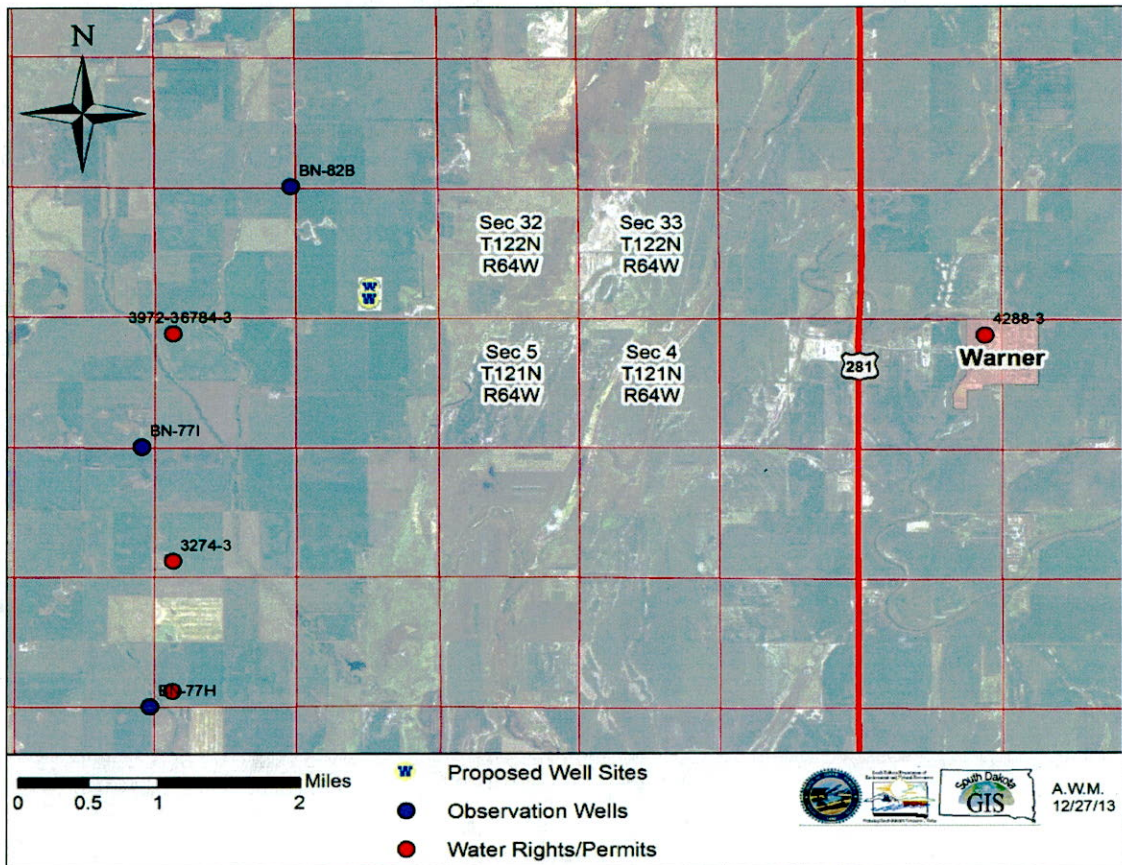


Figure 1- Map of the area around Application No. 7926-3 (Water Rights, 2013a)

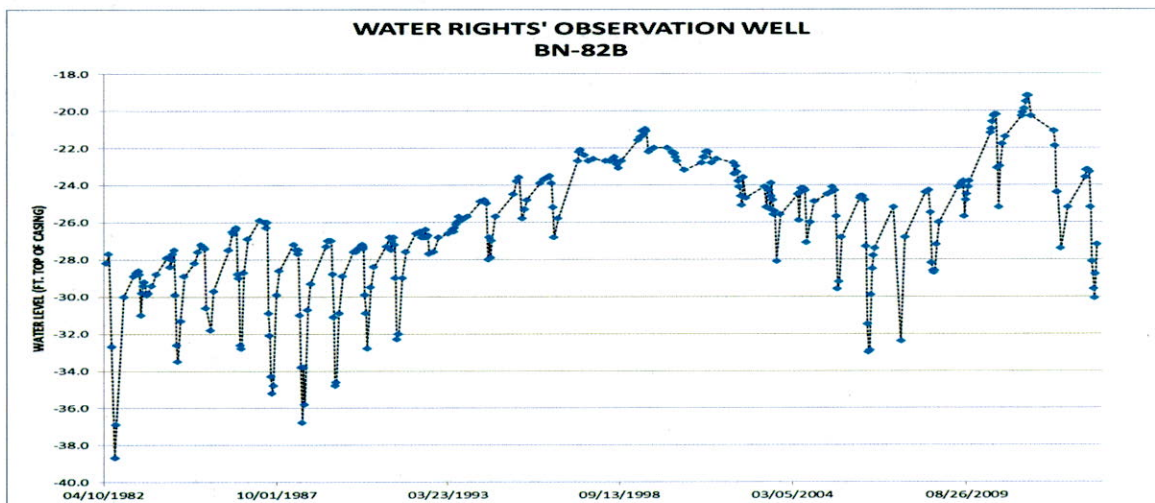


Figure 2- Hydrograph of DENR-Water Rights' observation well BN-82B (Water Rights, 2013a)

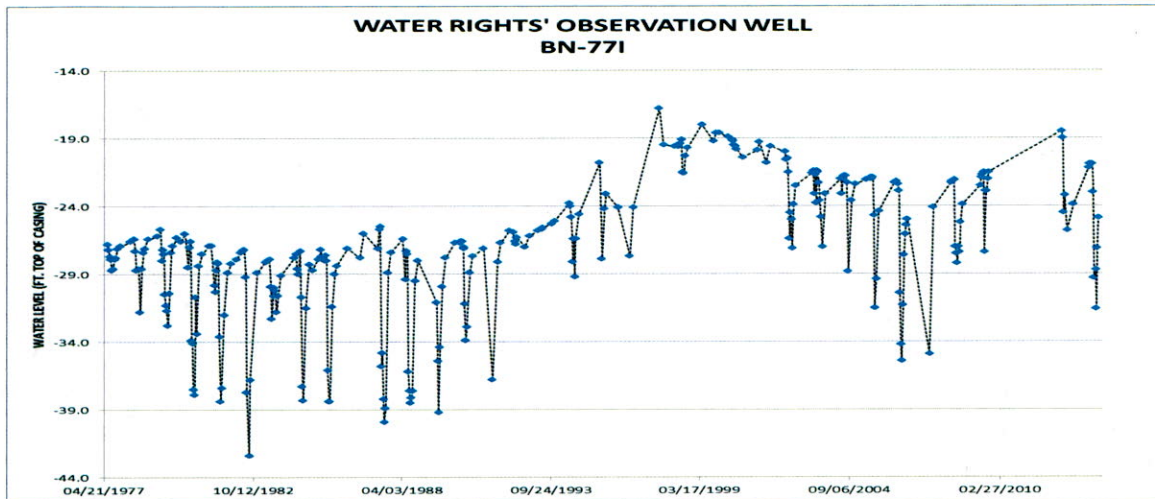


Figure 3- Hydrograph of DENR-Water Rights' observation well HN-76A (Water Rights, 2013a)

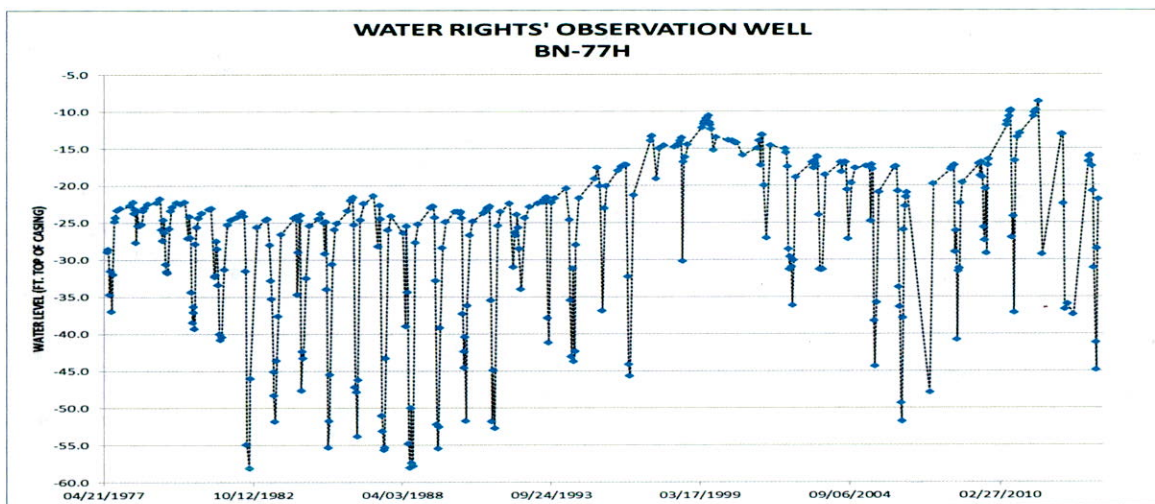


Figure 4- Hydrograph of DENR-Water Rights' observation well BN-77H (Water Rights, 2013a)

### EXISTING WATER RIGHTS:

There are 14 water rights/permits authorizing wells and many domestic wells that withdraw water from the Middle James: Aberdeen aquifer (Water Rights, 2013b and 2013c). There are four water rights/permits authorizing wells within approximately three miles of the proposed well sites (Water Rights, 2013b). The nearest well authorized by a water right/permit is approximately 1.5 miles west of the proposed well sites. There are also several domestic wells on file with the SD DENR-Water Rights Program within three miles of the proposed well sites (Water Rights, 2013c). The nearest domestic well on file with the DENR-Water Rights Program is approximately 0.4 miles east of the proposed well sites. Table 2 shows the water rights/permits completed into the Middle James: Aberdeen aquifer.

| Permit No.                                                                                                                                      | Name                     | Status | Type | CFS  | Acres |
|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------|------|------|-------|
| 2964-3                                                                                                                                          | Rodney A. Bade           | LC     | IRR  | 2    | 254   |
| 3187-3                                                                                                                                          | Boekelheide Farms Inc.   | LC     | IRR  | 2    | 264   |
| 3274-3*                                                                                                                                         | BLTS Farm Partnership    | LC     | IRR  | 1.33 | 112   |
| 3725-3                                                                                                                                          | Aaron J. Bade            | LC     | IRR  | 2    | 396   |
| 3848-3                                                                                                                                          | Myron Jeschke            | LC     | IRR  | 2.2  | 154   |
| 3972-3*                                                                                                                                         | John Braun               | LC     | IRR  | 1.89 | 132   |
| 4288-3                                                                                                                                          | Warner Sanitary District | LC     | MUN  | 0.22 | N/A   |
| 4681-3                                                                                                                                          | Robert J. Borchard       | LC     | IRR  | 2    | 274   |
| 4784-3A*                                                                                                                                        | Wiedebush Farms Inc.     | LC     | IRR  | 1.78 | 132   |
| 5128-3                                                                                                                                          | Krause-Allbee Farms      | LC     | IRR  | 1.61 | 113   |
| 5495-3                                                                                                                                          | John Braun               | LC     | IRR  | 8    | 890   |
| 6176-3                                                                                                                                          | Larry Krause             | PE     | IRR  | 2    | 150   |
| 6784-3*                                                                                                                                         | John Braun               | PE     | IRR  | 1.37 | 96    |
| 7470-3                                                                                                                                          | Robert J. Borchard       | PE     | IRR  | N/A  | 46    |
| * = Within approximately 3 miles of proposed well site, LC= Water Right, PE= Water Permit, IRR= Irrigation, MUN= Municipal, N/A= Not Applicable |                          |        |      |      |       |

Table 2- Water Rights/Permits within approximately one mile of proposed well site (Water Rights, 2013b)

SDCL 46-6-6.1 does not protect artesian head pressure as a means of delivery, and the Water Management Board has consistently recognized that to place water to maximum beneficial use a certain amount of drawdown may occur. To balance interests between appropriative use and delivery of water by artesian pressure the Water Management Board defined an “adversely impacted domestic well” in ARSD 74:02:04:20(7) as:

“a well in which the pump intake was set at least 20 feet below the top of the aquifer at the time of construction or, if the aquifer is less than 20 feet thick, is as near to the bottom of the aquifer as is practical and the water level of the aquifer has declined to a level that the pump will no longer deliver sufficient water for the well owner’s needs”

Depending on the specific characteristics of the Middle James: Aberdeen aquifer at the proposed well sites, some existing well owners may need to lower their pumps to accommodate for deeper water levels. However, when considering the statute (SDCL 46-6-6.1) and rule (ARSD 74:02:04:20(7)), well interference from the proposed appropriation is not likely to cause a significant impact. Therefore, there is a reasonable probability that any interference will not be adverse.

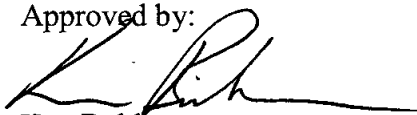
#### CONCLUSIONS:

1. Water Permit Application No. 7926-3 proposes to appropriate water at a maximum diversion rate of 2.22 cfs from the Middle James: Aberdeen aquifer for the irrigation of 480 acres.
2. There is a reasonable probability that unappropriated water is available for this proposed appropriation.
3. There is a reasonable probability that the diversion rate requested by this application can be made without adversely impacting existing water rights/permits and domestic users.



Adam Mathiowetz  
SD DENR-Water Rights Program

Approved by:



Ken Buhler  
SD DENR-Water Rights Program

#### REFERENCES:

- Benson, R.D. 1997. Major Aquifers in Spink County, South Dakota. Information Pamphlet No. 50. SD DENR-Geological Survey. Vermillion, South Dakota.
- Friedeman, B. 2014. Personal Communication. SD DENR-Drinking Water Program. Joe Foss Bldg., Pierre, South Dakota. January 3, 2014.
- Hedges, L.S., Allen, J., Holly D.E., 1985, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 7: Ground Water Recharge; U.S. Army Corps of Engineers Contract DACW 45-80-C-0185.
- Hedges, L.S., S.L. Burch, D.L. Iles, R.A. Barari, and R.A. Schoon. 1982. Evaluation of Ground-water Resources in 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.
- Koch, N.C. and W. Bradford. 1976. Geology and Water Resources of Brown County, South Dakota Part II: Water Resources. SD DENR-Geological Survey Bulletin 25. Vermillion, SD.
- Memorandum Decision. 2012. *Hanson County Dairy v. Robert Bender and Stace Nelson*. First Judicial Circuit Court; Mitchell, South Dakota. April 11, 2012.
- Water Rights. 1979-2013. "1979-2012 Irrigation Summaries by Aquifer": SD DENR-Water Rights Program, Joe Foss Building, Pierre, SD.
- Water Rights. 2013a. Observation Well Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Water Rights. 2013b. Water Right/Permit Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Water Rights. 2013c. Well Completion Reports. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.

RECEIVED

JAN 16 2014

Form 8

WATER RIGHTS  
PROGRAM

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA )  
County of Brown ) SS

I, May Bush

certify that the attached printed Notice was taken

from the Aberdeen News

printed and published in Aberdeen

County of Brown and

state of South Dakota. The notice was published

in the newspaper on the following date:

Jan 15, 2014

Cost of Printing \$43.75

May Bush  
(Signature)

Adv. Billy Spivey  
(Title)

1-15-14  
(Date Signed)

(No. 1708572)  
(Jan. 15, 2014 - 1T)

NOTICE OF APPLICATION NO. 7926-3  
to Appropriate Water

Notice is given that Randy Klenow, 38286 142nd St, Aberdeen SD 57401 has filed an application for a water permit to appropriate 2.22 cubic feet of water per second from two wells to be completed into the Middle James:Aberdeen Aquifer (120 feet deep) located in the SW 1/4 SE 1/4 Section 31 for irrigation of 480 acres located in the E 1/2 NW 1/4, NE 1/4, S 1/2 Section 31; all in T122N-R64W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7926-3 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 January 27, 2014.

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 total approximate cost of \$43.75



DEPARTMENT OF ENVIRONMENT  
and NATURAL RESOURCES

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



January 7, 2014

American News  
PO Box 4430  
Aberdeen SD 57402

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 7926-3 to Appropriate Water. Please publish the notice once on January 15, 2014. 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 Randy Kienow, 38286 142<sup>nd</sup> St, Aberdeen SD 57401 (Ph # 605-229-0439).

**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

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(S) RIGHT AWAY.**

January 7, 2014

Randy Kienow  
38286 142<sup>nd</sup> St  
Aberdeen SD 57401

Dear Mr. Kienow:

Water Permit Application No. 7926-3 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 American News printed at Aberdeen SD (Ph # 605-225-4100). 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

cc: Dennis Serfling, 616 N Arch St, Aberdeen SD 57401  
Ester Wilson, 1324 12<sup>th</sup> Ave SE, #41, Aberdeen SD 57401

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 January 15, 2014. 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. 7926-3 to Appropriate Water

Notice is given that Randy Kienow, 38286 142<sup>nd</sup> St, Aberdeen SD 57401 has filed an application for a water permit to appropriate 2.22 cubic feet of water per second from two wells to be completed into the Middle James:Aberdeen Aquifer (120 feet deep) located in the SW 1/4 SE 1/4 Section 31 for irrigation of 480 acres located in the E 1/2 NW 1/4, NE 1/4, S 1/2 Section 31; all in T122N-R64W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7926-3 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 January 27, 2014.

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 the total approximate cost of\_\_\_\_\_.



DEPARTMENT OF ENVIRONMENT  
and NATURAL RESOURCES

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



FEB 11 2014

Randy Kienow  
38286 142<sup>nd</sup> St  
Aberdeen SD 57401

Dear Mr. Kienow:

Enclosed is Water Permit No. 7926-3 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

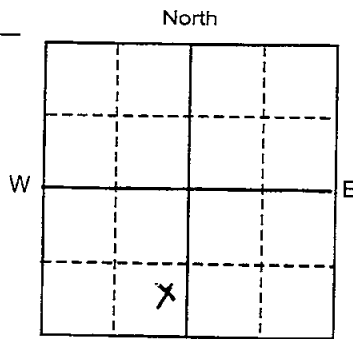
enclosures

## SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW 1/4 Sec 31 Twp 122 Rg 64

County Brown

Please mark well  
location with an "X"

Well Completion Date

6-13-14

1 Mile

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?  
NONE ft. from (identify source)

## PROPOSED USE:

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

## METHOD OF DRILLING:

Reverse Circulation

## CASING DATA:

☐ Steel ☒ Plastic ☒ Other

If other describe Stainless Steel

| PIPEWEIGHT  | DIAMETER | FROM  | TO     | HOLE DIAMETER |
|-------------|----------|-------|--------|---------------|
| 5.5 LB/FT   | 16 IN    | 95 FT | 125 FT | 26 IN         |
| SDR20 LB/FT | 16 IN    | 0 FT  | 95 FT  | 26 IN         |
| LB/FT       | IN       | FT    | FT     | IN            |

## GROUTING DATA:

| Grout Type | No. of Sacks | Grout Weight | From | To    |
|------------|--------------|--------------|------|-------|
| #20        | 15           | Lb/gal       | 0 Ft | 90 Ft |
|            |              | Lb/gal       | Ft   | Ft    |

Describe grouting procedure

Tremie Pipe

## SCREEN:

☐ Perforated pipe ☒ Manufactured

Diameter 16 Inches Length 30 Feet

Material Stainless Steel

Slot Size 1050 Set From 95 Feet to 125 Feet

Other information

## WAS A PACKER OR SEAL USED?

☒ Yes ☐ No

If so, what material? Envin Plug

Describe packer(s) and location 90' to 95'

## DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? Chlorine☐ No, Why Not?Lab to which water  
quality sample sent for analysis

Well Owner: Randy Kienow

Business Name:

Address: 38286 142nd St

City, State, Zip: Aberdeen SD 57401

## WELL LOG:

| FORMATION     | DEPTH |     |
|---------------|-------|-----|
|               | FROM  | TO  |
| Top Soil      | 0     | 5   |
| Yellow Clay   | 5     | 25  |
| Blue Clay     | 25    | 100 |
| Sand + Gravel | 100   | 110 |
| Coarse Gravel | 115   | 123 |
| Clay          | 123   | 125 |

STATIC WATER LEVEL 55 FEET

If flowing: closed in pressure PSI

GPM flow through Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other

Reduced flow rate GPM

Can well be completely shut in?

## WELL TEST DATA:

☐ Pumped Describe: Submersible + Air  
☐ Bailed  
☐ Other

Pumping Level Below Land Surface

55 Ft. After 2 Hrs. pumped 1200 GPM

Ft. After Hrs. pumped GPM

If pump installed, pump rate: GPM

## REMARKS

RECEIVED

OCT 23 2014

WATER RIGHTS  
PROGRAMThis well was drilled under license # 722 and this  
report is true and accurate.

Drilling firm: Stretch's Well Service Inc.

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Signature of Well Owner or Equitable Property Holder:

Signature of Well Owner or Equitable Property Holder:

Date: June 27-14

10-28-14

7926-3

11-02

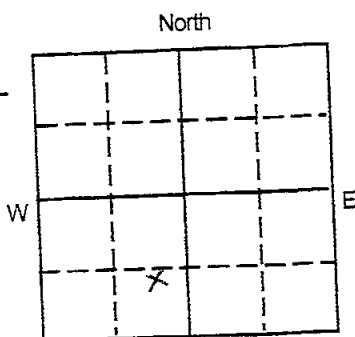
## SOUTH DAKOTA WATER WELL COMPLETION REPORT

Location SW  $\frac{1}{4}$  Sec 31 Twp 122 Rg 64

County

Brown

Please mark well location with an "X"



Well Completion Date

5-1-14

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

? NONE ft. from \_\_\_\_\_ (Identify source)

## PROPOSED USE:

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

## METHOD OF DRILLING:

Reverse Circulation

## CASING DATA:

☐ Steel ☒ Plastic ☒ Other  
 If other describe Stainless Steel

| PIPEWEIGHT          | DIAMETER     | FROM         | TO            | HOLE DIAMETER |
|---------------------|--------------|--------------|---------------|---------------|
| <u>304 SS</u> LB/FT | <u>16</u> IN | <u>84</u> FT | <u>114</u> FT | <u>26</u> IN  |
| <u>SPR 26</u> LB/FT | <u>16</u> IN | <u>0</u> FT  | <u>84</u> FT  | <u>26</u> IN  |

## GROUTING DATA:

| Grout Type | No. of Sacks | Grout Weight | From        | To           |
|------------|--------------|--------------|-------------|--------------|
| <u>#20</u> | <u>15</u>    | Lb/gal       | <u>0</u> Ft | <u>80</u> Ft |

Describe grouting procedure

Tremie Pipe

## SCREEN:

☐ Perforated pipe ☒ Manufactured  
 Diameter 16 Inches Length 30 Feet
Material Stainless SteelSlot Size 1050 Set From 84 Feet to 114 Feet

Other information

## WAS A PACKER OR SEAL USED?

☒ Yes ☐ No

If so, what material?

Enviro Plug

Describe packer(s) and location

above Screen

## DISINFECTION: Was well disinfected upon completion?

☒ Yes, How?Chlorine☐ No, Why Not?

Lab sample sent to for water quality analysis

Well Owner:

Randy Kienow

Business Name:

Address:

38286 142nd Ave

City, State, Zip:

Aberdeen SD 57401

## WELL LOG:

## DEPTH

## FORMATION

## FROM

## TO

Yellow Clay225Blue Clay & Rock2583Sand & Gravel83114

## STATIC WATER LEVEL

55

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: Air☐ Bailed☐ Other

Pumping Level Below Land Surface

55

Ft. After

2

Hrs. pumped

1000

GPM

Ft. After

2

Hrs. pumped

1000

GPM

If pump installed, pump rate:

GPM

## REMARKS

RECEIVED

OCT 23 2014

WATER RIGHTS PROGRAM

This well was drilled under license #

722

And this report is true and accurate.

Drilling firm:

Stretch's Well Service

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date:

June 14-14

10-28-14

7926-3

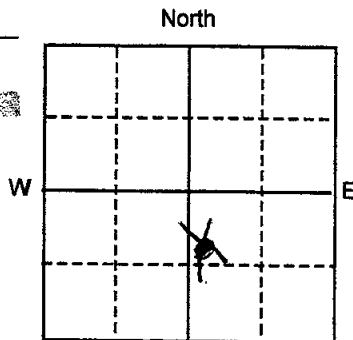
SD EForm - 1621LD V1

## SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SE  $\frac{1}{4}$   $\frac{1}{4}$  Sec 31 Twp 122 Rg 64County Brown

Please mark well location with an "X"



Well Completion Date

5/4/2016

1 Mile

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?  
None ft. from (identify source)

## PROPOSED USE:

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

## METHOD OF DRILLING:

Reverse circulation

## CASING DATA:

☐ Steel ☒ Plastic ☐ Other  
 If other describe Stainless Steel

| PIPEWEIGHT | DIAMETER | FROM  | TO     | HOLE DIAMETER |
|------------|----------|-------|--------|---------------|
| SS LB/FT   | 16 IN    | 80 FT | 110 FT | 26 IN         |
| SDR LB/FT  | 16 IN    | 0 FT  | 80 FT  | 26 IN         |
| LB/FT      | IN       | FT    | FT     | IN            |

## GROUTING DATA:

| Grout Type | No. of Sacks | Grout Weight | From | To    |
|------------|--------------|--------------|------|-------|
| #20        | 15           | Lb/gal       | 0 Ft | 75 Ft |
|            |              | Lb/gal       | Ft   | Ft    |

Describe grouting procedure  
Tremie Pipe

## SCREEN:

☐ Perforated pipe ☒ Manufactured  
 Diameter 16 Inches Length 30 Feet  
 Material Stainless Steel  
 Slot Size .050 Set From 80 Feet to 110 Feet

Other information

## WAS A PACKER OR SEAL USED?

☒ Yes ☐ NoIf so, what material? Enviro PlugDescribe packer(s) and location  
Above Screen

## DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? Chlorine☐ No, Why Not?

Lab to which water quality sample sent for analysis

Well Owner: Randy Kienow

Business Name:

Address: 38286 142nd StCity, State, Zip: Aberdeen SD 57401

## WELL LOG:

| FORMATION     | DEPTH |     |
|---------------|-------|-----|
|               | FROM  | TO  |
| Top Soil      | 0     | 1   |
| Yellow Clay   | 1     | 25  |
| Blue Clay     | 25    | 85  |
| Gravel & Coal | 85    | 110 |
|               |       |     |
|               |       |     |
|               |       |     |
|               |       |     |

STATIC WATER LEVEL 24.8 FEET

If flowing: closed in pressure \_\_\_\_\_ PSI

GPM flow \_\_\_\_\_ through \_\_\_\_\_ Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other \_\_\_\_\_

Reduced flow rate \_\_\_\_\_ GPM

Can well be completely shut in?

## WELL TEST DATA:

☒ Pumped Describe: Submersible  
☐ Bailed  
☐ Other

Pumping Level Below Land Surface

80 Ft. After 4 Hrs. pumped 650 GPM

\_\_\_\_\_ Ft. After \_\_\_\_\_ Hrs. pumped \_\_\_\_\_ GPM

If pump installed, pump rate \_\_\_\_\_ GPM

## REMARKS

RECEIVED

MAY 23 2016

WATER RIGHTS PROGRAM

Middle James: Aberdeen SDThis well was drilled under license # 722 and this report is true and accurate.Drilling firm: Stretch's Well Service Inc.

Signature of License Representative:

Tom Stutzman

Signature of Well Owner or Equitable Property Holder:

Randy KienowDate: May 17 2016

7926-3



**DENR**  
SOUTH DAKOTA

DEPARTMENT of ENVIRONMENT  
and NATURAL RESOURCES  
JOE FOSS BUILDING  
523 EAST CAPITOL  
PIERRE, SOUTH DAKOTA 57501-3182  
denr.sd.gov

October 29, 2020

7926-3

Randy Kienow  
215 E Palmer Circle  
Aberdeen SD 57401 0209

Dear Mr. Kienow:

Enclosed is a "Notice" dated October 23, 2020 concerning the 2020 irrigation questionnaire.

The notice was originally mailed to 38286 142<sup>nd</sup> St, Aberdeen. The post office notified us that your address has changed, and I will update our records accordingly.

If you have any questions, please contact me.

Sincerely,

A handwritten signature in cursive script that reads "Genny McMath".

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

enclosures