

WATER PERMIT NO. 6382-3

Name of Applicant: William F St Clair

Address: 37644 184th St, Tulare SD 57476

Phone: 605 546-4262

Amount of Water Claimed: no additional

Total Acres: no additional

Source of Water Supply: groundwater

Water to be used for: irrigation

County: Spink

Type of Waste Disposal System:

Location: 4 miles northwest of Doland

PRIORITY

Date Received: 1-14-03

Application/License Fee: \$100

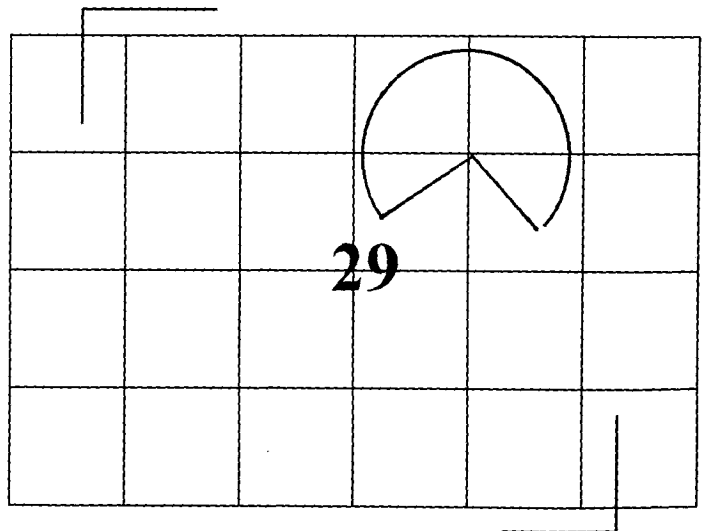
Corrected Application Received:

Period of Annual Use:

Remarks: Requesting a change in diversion authority

Diversion Point:

Land to be Irrigated: NE ¼ Sec 29-T117N-R61W



Depth of Well: 88 feet

Well Driller: : Pullman Drilling

Remarks:

Type of Map: topo

Prepared by: Shane Jordan, NRCS

Reviewed and the Number Assigned on: 1-14-03

By: Karen Schlaak

Notice of Hearing - date to intervene: _____

**SOUTH DAKOTA
WATER PERMIT NO. 6382-3**

Date of first receipt of application January 14, 2003.

The Water Management Board, approved Water Permit No. 6382-3 on December 3, 2003 to William St. Clair, 37644 184th Street, Tulare SD 57476 authorizing the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 6382-3 transfers 100 acres from Water Right No. 4586-3 to lands located in the NE $\frac{1}{4}$ Section 29-T117N-R61W and authorizes use of a well (Tulare:East James Aquifer) located in the approximate center of the NE $\frac{1}{4}$ Section 29-T117N-R61W. This permit authorizes a diversion rate of 1.7 cfs from the well only at times when the well authorized by Water Right No. 4586-3 which is located in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 28-T117N-R61W is not being operated (see reissued Water License No. 4586-3 for description of this water right). This Permit transfers 100 acres from the NE $\frac{1}{4}$ of Section 28 which was part of the 364 acres authorized by Water Right No. 4586-3 to the NE $\frac{1}{4}$ Section 29-T117N-R61W.

Water Permit No. 6382-3 is being issued as set forth in the Water Management Board's Final Decision adopted December 3, 2003 and Mr. St. Clair's subsequent identification of the acreage to be transferred and alternating use of the two wells. These documents can be found in the Water Rights Program's administrative file for Permit No. 6382-3.

Water Right No. 4586-3 is reissued to reflect the reduction in the diversion rate and irrigated acres resulting by the approval and issuance of Water Permit No. 6382-3.

2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: April 1 – September 30.
3. The date from which applicant may claim right is December 17, 1980 (established by Water Right No. 4586-3).
4. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. Pursuant to SDCL 46-1-14, Permit No. 6382-3 is issued for a 5-year term to allow irrigation until a long term solution is in place. This permit will be brought back before the Water Management Board upon the permit holder submitting of a long term solution, the expiration of the 5-year term, or upon a change in landownership of the lands authorized for irrigation by Water Permit No. 6382-3 and Water Right No. 4586-3. If the 5-year term is not deleted at the end of the term, the permit may either be cancelled or amended with a new term limitation. Permit No. 6382-3 may also be cancelled for nonconstruction, forfeiture, abandonment, or three permit violations pursuant to SDCL 46-1-12, 46-5-37, 46-5-37.1 and ARSD 74:02:01:37.

Water Permit No. 6382-3

William St. Clair

Page 2

2. The well authorized by Water Permit No. 6382-3 may not be in use when the well authorized by Water Right No. 4586-3 is in operation. Operating both wells at the same time is a violation of this permit and pursuant to SDCL 46-1-12 the matter will be brought before the Water Management Board for appropriate action.
3. 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.
4. This permit is approved subject to the irrigation water use questionnaire being submitted each year.
5. The Water Management Board retains jurisdiction of Permit No. 6382-3 to settle disputes arising under the Final Decision.

WATER MANAGEMENT BOARD

By: _____

Garland Erbele

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

MAY 18 2004

date



Mail to: Water Rights Program Joe Foss Building 523 E. Capitol Pierre, SD 57501-3181 (605) 773-3352	(office use only) No. <u>16382-3</u> Hydrologic Unit <u>10160006</u>
	Basin <u>James River</u>
	Newspaper <u>Redfield Press</u>

RECEIVED
JAN 14 2003
WATER RIGHTS
PROGRAM

Application For Permit To Appropriate Water For Irrigation

Type of Application: New Vested Right ✓ Amendment/Correction to Permit No. 970-3
987-3
4586-3
(Use predates Mar 2, 1955)

Description of amendment/correction: (i.e. change diversion point(s), add diversion point(s), change use, etc.) Refer to attached
letter to change diversion authority

- Name of Applicant William F. St. Clair Phone 605-596-4262
(check one) ✓ Owner Tenant/lessee
Mailing Address 37644 184th St. Tulare State SD 57476
(Street, RR, or Box and City) (Zip Code)
2. Amount of water claimed no additional claimed *CFS or **GPM ***AF Total Acreage no additional claimed
(*Cubic Feet per Second) (**Gallons per Minute) (**Acre Feet - storage capacity of dam/dugout or annual use if applicable)
3. Source of water supply Well
4. Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) Center of NE 1/4 sec.
29-117-61 County Spink
5. County or counties where water will be used Spink
6. Annual period during which water is to be used
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>All in NE 1/4 Sec 29-117-61</u>			

- Give a description of the project. (Attach sheet if more space is needed) Refer to attached letter and exhibits

STATE OF SOUTH DAKOTA) SS
County of SPINK)

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

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

Applicant's signature William F. St. Clair

Subscribed and sworn to before me this 13th day of January 2003

Francelle Fuss
FRANCELE FUSS, Notary Public signature

My Notary expires July 11, 2005

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 25 inch Depth 88 feet
- b) Casing Type PVC Diameter 16 Thickness .50
- c) Screen Type PVC Diameter 16 Thickness .50
- d) Gravel Pack _____ Length of Gravel Pack 30 ft
- e) Depth to Top of Water Bearing Material 20 feet
- f) Depth to Water (ground surface to water level) 20 feet
- g) Distance to nearest existing domestic well:

On applicants property 1 mile

On property owned by others _____
William F. St. Clair
3764d 18th Street
Tulare, SD 57476-7007
605-596-4262

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 _____

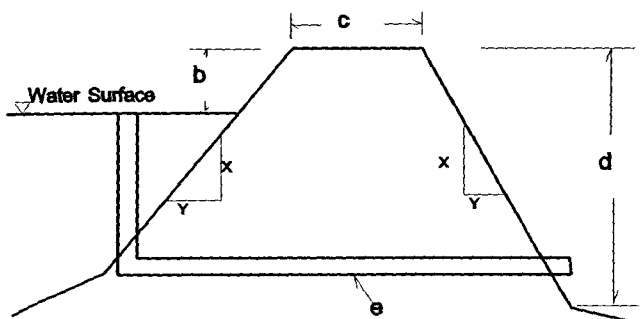
3. Dugout Information

- 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

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date JANUARY 14, 20 03

RECEIVED OF William St. Clair, 37644 184th St., Tulare SD 57476-7007

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

Fee for Application for Permit No. _____ to Appropriate Water, to construct and to put water to beneficial use	50	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. _____	50	00
Fee for Filing Transfer Form _____		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	100.00

No.

000543

By

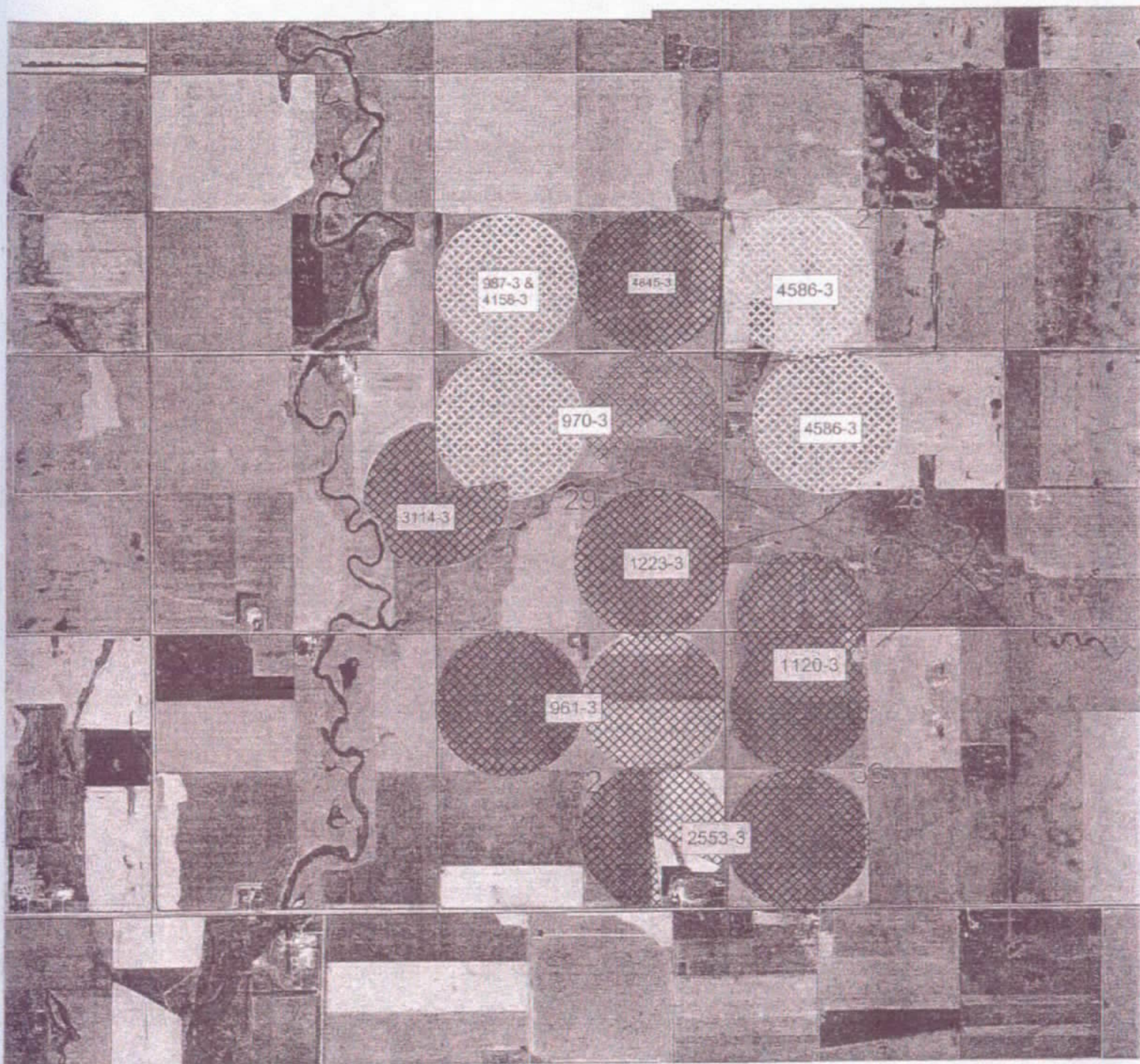
Darland Ebel

Chief Engineer

gm

IRRIGATION WATER RIGHTS IN THE VICINITY OF WATER RIGHT NO. 970-3

LOCATED IN T117N, R61W



2000 0 2000 4000 6000 8000 10000 Feet



William F. St. Clair
37644 184th Street
Tulare, SD 57476-7007
605-596-4262

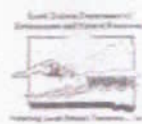


Exhibit A

HURON STEEL STRUCTURES

HIGHWAY #14, WEST

HURON, SOUTH DAKOTA

Nº 1611

6/19 63

Wm St Clair
Tulare

* 1000 GPM

1600 GPM

Backley Pump -

5 stage 1004 H

50'-8" column 1 3/16" shaft oil lubr.

5'-8" tail pipe

8x16 discharge head

75 HP di Thum U.S. Motor 220-440 V. ^{non} reverse break

Full Voltage fusible disconnect Panel - Start - Stop button

3rd leg overload 73 fuses

1136 gpm - 30' lift

206' head - 31' manhole diam

40' operating

4275 = 210'

206'

2800⁰⁰

56⁰⁶

> 856⁰⁰

Exhibit A

William F. St. Clair
37644 184th Street
Tulare, SD 57476-7007
605-596-4262

Exhibit A

HURON STEEL STRUCTURES

HIGHWAY #14, WEST

HURON, SOUTH DAKOTA

Nº 1634

St Clair

Inland

7/15-63

Buckley Lumber Camp —

2856"

Exhibit A

1790
is stage

ATTN
DALE



BERKELEY PUMP COMPANY

VERTICAL TURBINE CURVES 1760 RPM ENCLOSED IMPELLER

CURVE	5055
DATE	2-4-81
PAGE	8.51
SUPERSEDES	
Curve 5055 Pgs. 8.51	
Dated 6-1-76	

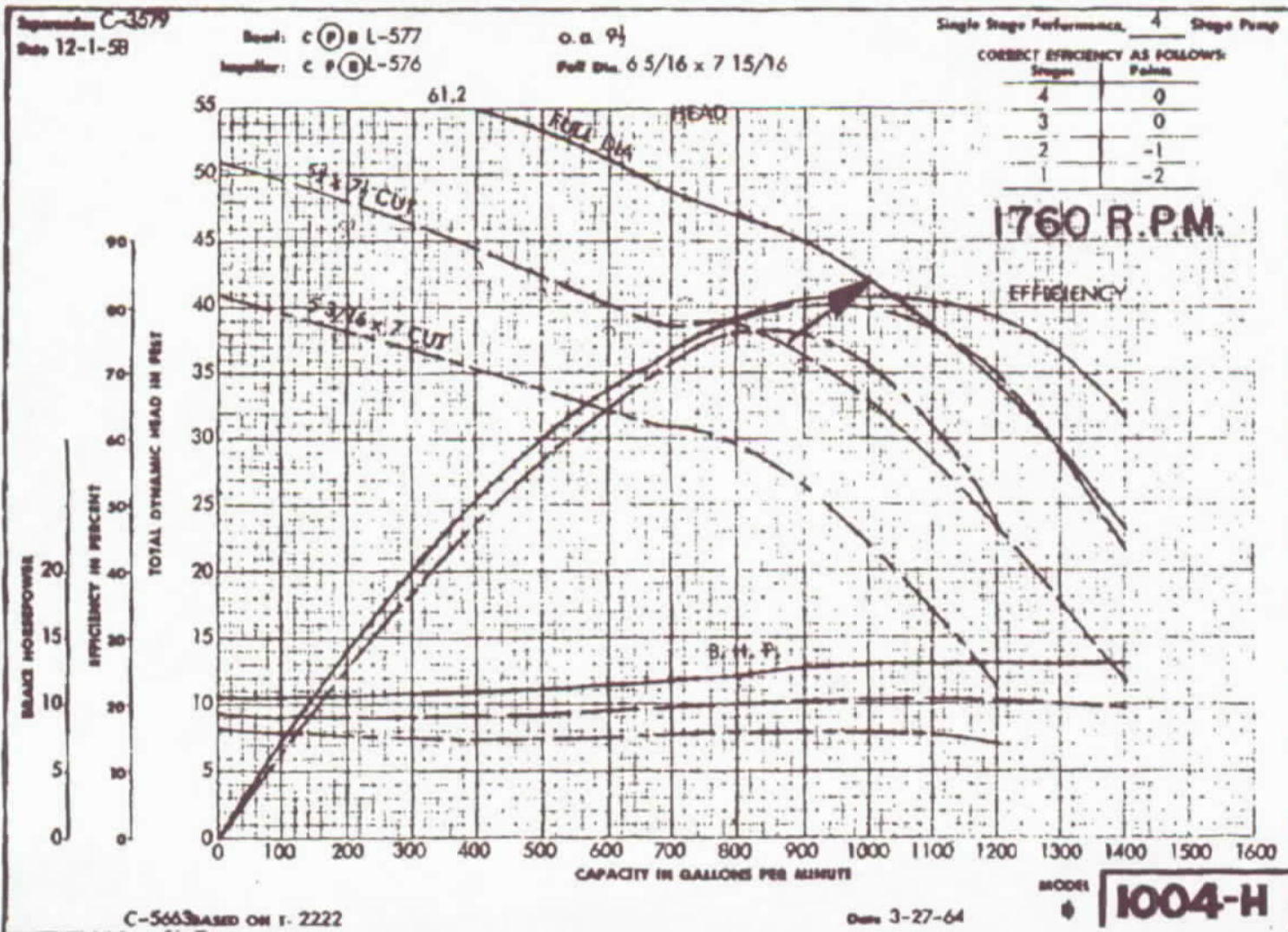


Exhibit "B"

XB

01/10/03 13:54 FAX 8058834534

PULLMAN WELL DRI

02

01/10/03 FRI 13:38 FAX 402 463 0323

MID-AMERICA PUMP

PULLMAN WELL CO

001

PULLMAN DRILLING CO, WOLSEY SD.

PUMP DATA SHEET

01/10/03

Turbine 60 Hz

Alt pck

William F. St. Clair
37644 10th Street
Tulare, SD 57476-7007
605-596-4262

Catalog: GOULDS LINESHAFT 60HZ VERS 2.01

Pump: 9RCLC (1 stages)

Type: TURBINE

Synch speed: 3600 rpm

Speed: 3450 rpm

Dia: 6.8125 in

Curve no.: E6209CFPCO

Specific Speeds

Ns: 2290

Nss: —

Dimensions:

Suction: — in

Discharge: — in

Vertical Turbine:

Bowl size: 8.25 in

Max lateral: 0.68 in

Thrust K factor: 4.9 lb/in

Pump Limits:

Temperature: 120 °F

Pressure: 400 psi g

Sphere size: 0.56 in

Power: — bhp

Motor: 40 hp

Speed: 3600

Frame: 286

Standard: NEMA

Enclosure: VPI

Sizing criteria: Max Power on Design Curve

Selection list: —

Search Criteria:

Flow: 800 US gpm

Head: 150 ft

Tolerance: — % of head

Fluid: Water

Temperature: 60 °F

SG: 1

Viscosity: 1.105 cP

Vapor pressure: 0.2563 psi a

Atm pressure: 14.7 psi a

PSHa: — ft

Advanced Criteria:

Preferred Operating Area: —

Secondary Operating Point: —

Max temperature: — °F

Max suction pressure: — psi g

Max sphere size: — in

Max power: — bhp

Max suction specific speed: — (Nss)

Min trim: — % of max diameter

Min head rise: — % to shutoff

Drive Corrections: none

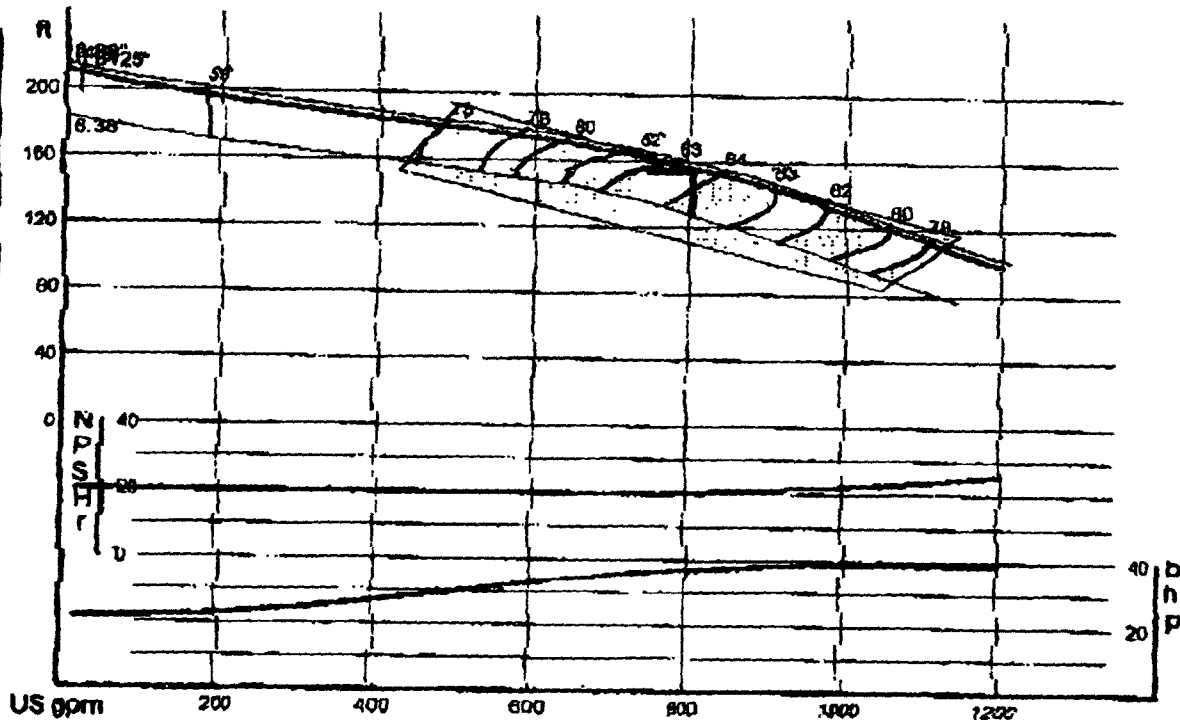
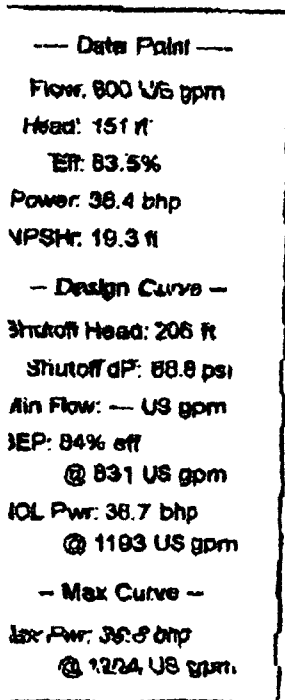


Exhibit "B"

XB

01/10/03 13:54 FAX 6058834534

PULLMAN WELL DRI

01

01/10/03 FRI 13:37 FAX 402 483 0323

MID-AMERICA PUMP

PULLMAN WELL CO 002

PULLMAN DRILLING CO, WOLSEY SD.

PUMP DATA SHEET

01/10/03

Turbine 60 Hz

Selection list: —

Catalog: GOULDS LINESHAFT 60HZ VERS 2.01

Pump: 9RCLC (1 stages)

Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Pump %eff	Power bhp	NPSHr ft	Motor %eff	Motor kW	Hrs/yr	Cost /kWh
980	3450	130	82.1	38.4	20.8				
800	3450	151	83.5	36.4	19.3				
640	3450	188	80.3	32.3	18				
480	3450	175	73	28	19				
320	3450	184	54.9	25.4	19				

To Bill St. Clair 605-596-4262
Pullman Drilling

1- Stage 9RCLC -
40 HP 460 V. 3PH.
Sub. pump.
pump set is 48'

*Exhibit C**XC*

Parent Order#: 10168360
 Order Date: 05/01/2002
 Dealer PO: #5

Order No: 10172498
 Plant: Valley Systems/Parts
 Promise Date: 05/07/2002
 Routing: W/SYS

Dealer: 00003455/INMAN-MCDOWELL, INC.
 Customer: DETTLER FARMS
 40168 173RD Street
 Doland, SD 57435
 Field Name: Dettler #5

William F. St. Clair
37644 184th Street
Tulare, SD 57476-7007
605-596-4262

Model:	8000	Pivot Pressure (PSI):	30
Machine Length:	1298.44	Gallage (GPM):	800
End Gun Radius:	90.01	GPM/Acre:	5.66
Total Acres:	139.03	App Rate (In/Day):	0.31

Pivot

Model	Qty	Length(ft)	Dia(in)	Spacing	Profile	Time	C-Factor
8000	3	180	6 5/8	30 in	Standard	11.2 x 24 New	
8000	4	184.8	6 5/8	30 in	Standard	11.2 x 24 New	
8000	1	19	6 5/8	30 in			

Sprinkler Configuration

Criteria	Component	Configuration
Outlet Spacing	U-pipe	Valley, 6, Galvanized, 3/4 M NPT x 3/4 F NPT
	Variable Drop	Valley, Galvanized, 75, 3/4 M NPT
	Regulator	Valley, PSR, 10, All, 3/4 F NPT
	Sprinkler	Senninger, Directional, , 3/4 M NPT
Outlet Spacing	U-pipe	Valley, 6, Galvanized, 3/4 M NPT x 3/4 X Hose
	Variable Drop	Black, Host, 36, 3/4 F Hose
	Integrated Weight	Senninger, LDN, 1
	Regulator	Valley, PSR, 10, All, 3/4 F NPT
	Sprinkler	Senninger, LDN, Concave/Dbl/Txpl, 3/4 M NPT

Pressure

Pressure = 30 PSI
 Measured at = Inlet
 Pressure Loss = 9.08 PSI

Pump Summary

Usage = Standard
 Model = Nelson SR75
 Endgun Valve = 9390228
 Booster Pump = 2 HP

Pump Chart Settings

Center Drive Output = 34 RPM
 Motor Frequency = 60 Hz
 Wheel Gearbox Ratio = 52:1
 Pipe Size = 11.2 x 24 New

Options

Drain Sprinkler = Senninger Directional
 Last Sprinkler Coverage = 1 ft
 Use Last Coupler = YES
 Minimum Mainline Pressure = 6 PSI

Comments:

SPRINKLER FOR DETTLER FARMS, #5, SYSTEM ORDER #10168360

Shipping Options:

Ship Drop Hardware

Cover Sheet = 5/1/2002

VALMONT PARTS ORDER
VALMONT INDUSTRIES
HIGHWAY 275 VALLEY, NE 68064
PHONE: 402-359-2201
FAX: 402-359-2945

Date: 05/23/2002

Dealer Name: INMAN-MCDONWELL, INC. Dealer # 00003455 Order Number: 10176597
Dealer FO: CORNER Order Type: SD Total Weight: 0.1 Total Amt.: \$447.33
Freight Terms: ADD Ship Partial: Ship Via: UPS Next Day Air
Order Date: 5/23/2002 Promise Date: 5/23/2002
Parent Order:
CSR: 15K00996 Dealer Rep: TSM00300
Terms Code: 10TH PROX Ship With:

Comments:

Ship To: INMAN-MCDONWELL, INC. Sold To: INMAN-MCDONWELL, INC.
Address: 3000 3rd Ave SE Box 616 Address: 3000 3rd Ave SE Box 616
City: Aberdeen State: SD City: Aberdeen State: SD
ZIP: 57401 Country: USA ZIP: 57401 Country: USA

Line	Line Type	Qty	UOM	Part #	Description	List Price	Disc %	Net Price	Ext Price
1		1	EA	0270038	ASSM TUBE HARN, 185' SPAN, STANDARD PKG	774.59	42.25	447.33	447.33

Order Total: \$447.33

need 284

Exhibit C

NELSON BLUE & RED CAP PRESSURE REGULATORS

*Precision Accuracy in
tough field environments.*

FEATURES:

■ PATENTED DAMPENING SYSTEM.

The patented O-Ring Dampening System of all Nelson Pressure Regulators handles severe pressure surges, without creating flow restrictions under working pressures.

■ EXTENDED FLOW RANGE.

The Nelson Lo-Flo Pressure Regulator extends to 10 gpm, providing economical precision.

■ EXTENDED ACCURACY.

Precision components coupled with an internally lubricated o-ring minimize frictional drag and hysteresis.

■ PLUG RESISTANT DESIGN.

An open seat design prevents hair-pinning, debris hangup and plugging of the pressure regulator.

■ PRECISION MANUFACTURED.

Made of the toughest chemically resistant materials. 100% water tested for accuracy.

■ TWO MODELS TO CHOOSE FROM.

STANDARD DUTY or **HEAVY DUTY**

Features the same high quality design and components as the Blue-Cap with a **Chrome-Plated Brass Plunger** for reduced hysteresis from plunger wear.

Why Chrome-Plated Brass?

Chrome-Plated Brass is resistant to the abrasive nature of poor water quality conditions . . . providing durability and extended accuracy.

Within the inner workings of a pressure regulator, a constant seal must be maintained by the o-ring, as the flow plunger responds to changing inlet pressures. Tiny grit and sand particles that embed in the o-ring seal are abrasive to a standard plunger, causing grooves and imperfections. Over time accuracy and durability are detrimentally affected. *Nelson engineers have addressed the problem with the durable, highly polished chrome sliding surface . . . found only in the Nelson Red-Cap.*

innovation in irrigation™



STANDARD DUTY!

Blue-Cap

Color-Coded Identification

Patented Internal
Dampening System

- Retards Vibration
- Withstands
Water Hammer

Vented for Below
Ground Use

Chemically Resistant
Materials

Internally Lubricated
O-Ring for
Precision Accuracy

Plug Resistant Seat
Design



HEAVY DUTY!

Red-Cap

DURABILITY IN AG WATER

Accelerated cycle tests in tough agricultural water conditions show that the chromed metal sliding surface of the Nelson Red-Cap Pressure Regulator resists plunger wear.

**Chrome-Plated Brass
Plunger**

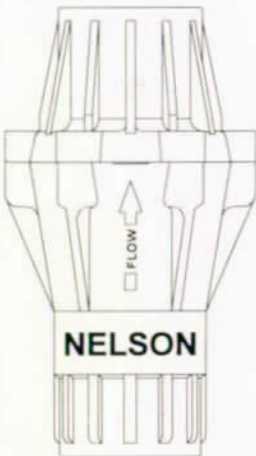
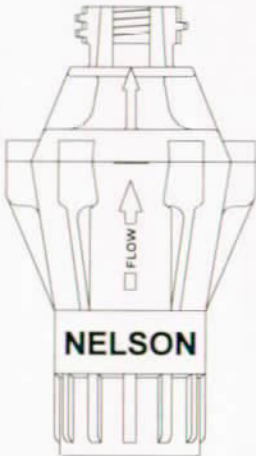
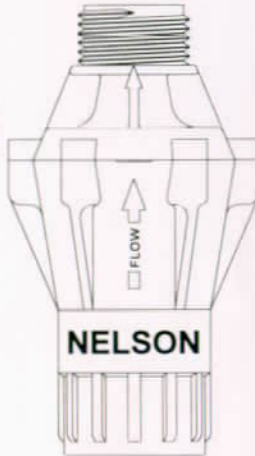
O-Ring Seal



Nelson Pressure Regulators

BLUE & RED

Connections

Pipe Thread Connection	3000 Series Pivot Connection (integral adapter for 3000 Series Pivot Products)	Hose Thread Connection (Connections for MicroDrip)
OUTLET 3/4" FNPT  INLET 3/4" FNPT  	OUTLET 3000 ST  INLET 3/4" FNPT  	OUTLET 3/4" MHT  INLET 3/4" FHT  

Ordering Specifications:

When ordering Nelson Pressure Regulators specify Pressure, Flow (Hi Flo or Lo Flo), Duty (Blue-Cap or Red-Cap), & Connection (Inlet x Outlet). (Example: 10 PSI Hi Flo Red-Cap 3/4" FNPT x 3/4" FNPT). Contact Nelson factory for other connection options.

Application Notes

Performance Tables. Contact the Nelson factory for detailed performance information.

Statement of Expected Performance. Nelson Pressure Regulators are accurate to 6% variance of coefficient of manufacturing.

Design Considerations. Maintain a 3 psi threshold above the nominal spring rated pressure.

Caution! Pressure regulators should be installed downstream from all shut-off valves.

LO FLO

CONNECTIONS AVAILABLE

PSI BAR GPM M³/HR.

3/4" FNPT

3/4" FNPT

3/4" FHT

3/4" FNPT 3/4" ST 3/4" MHT

B

L

U

E

6	.41	.5-8	.11-1.82	■	■	■
10	.70	.5-10	.11-2.27	■	■	■
15	1.0	.5-10	.11-2.27	■	■	■
20	1.4	.5-10	.11-2.27	■	■	■
25	1.7	.5-10	.11-2.27	■	■	■
30	2.0	.5-10	.11-2.27	■	■	■
40	2.8	.5-10	.11-2.27	■	■	■
50	3.5	.5-10	.11-2.27	■	■	■

R

E

D

6	.41	.5-8	.11-1.82	■	■	■
10	.70	.5-10	.11-2.27	■	■	■
15	1.0	.5-10	.11-2.27	■	■	■
20	1.4	.5-10	.11-2.27	■	■	■
25	1.7	.5-10	.11-2.27	■	■	■
30	2.0	.5-10	.11-2.27	■	■	■

HI FLO

PSI BAR GPM M³/HR.

3/4" FNPT 3/4" FNPT

3/4" ST 3/4" ST

B

L

U

E

6	.41	4-16	.91-3.63	■	■
10	.70	4-16	.91-3.63	■	■
15	1.0	2-20	.45-4.54	■	■
20	1.4	2-20	.45-4.54	■	■
25	1.7	2-20	.45-4.54	■	■
30	2.0	2-20	.45-4.54	■	■
40	2.8	2-20	.45-4.54	■	■
50	3.4	2-20	.45-4.54	■	■

R

E

D

6	.41	4-16	.91-3.63	■	■
10	.70	4-16	.91-3.63	■	■
15	1.0	2-20	.45-4.54	■	■
20	1.4	2-20	.45-4.54	■	■
25	1.7	2-20	.45-4.54	■	■
30	2.0	2-20	.45-4.54	■	■
40	2.8	2-20	.45-4.54	■	■
50	3.4	2-20	.45-4.54	■	■

This product may be covered by one or more of the following: U.S. Patent No. 5257646 and other U.S. Patents pending or corresponding issued or pending foreign patents.



www.nelsonirr.com
e-mail: nelson@nelsonirr.com

Rt. 4 Box 169, Walla Walla, WA USA 99362 • Tel: (509)525-7660 • Fax: (509)525-7907

WARRANTY & DISCLAIMER

NELSON PRESSURE REGULATORS are warranted for one year from the date of original sale to be free of defective materials and workmanship when used within the working specifications for which the product was designed and under normal use and service. The manufacturer assumes no responsibility for installation, removal or unauthorized repair of defective parts and the manufacturer will not be liable for any crop or other consequential damages resulting from any defects or breach of warranty. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSES AND OF ALL OTHER OBLIGATIONS OR LIABILITIES OF MANUFACTURER. No agent, employee or representative of the manufacturer has authority to waive, alter or add to the provisions of this warranty nor to make any representation or warranty not contained herein.

TG: Bill

William F. St. Clair
37044 104th Street
Tulare, SD 57476-7007
605-596-4262



605 596 4262

S/N V78-71100

3601 Fairbanks Avenue
P.O. Box 6999
Kansas City, KS 66106-0999
phone: 913-748-4254
fax: 913-748-4030
<http://www.pentairpump.com>

Model 12RLH

3- FD 'L' impellers

1- FD 'H' impeller

See attached curves

Chris

William F. St. Clair
37611 121st Street
Tulare, SD 57476-7607
605-592-4262

Date **November 1999**

Supersedes All previous catalog materials

CURVE data



No. Stages	Eff. Change	MATERIAL	Eff. Change
1	-3	IMP. — C.I.	-1
2	-1	IMP. — NI-RJ	-1
3	0	BOWL — BRZ.	-2
4	0	BOWL — NI-R.	-2

12RL

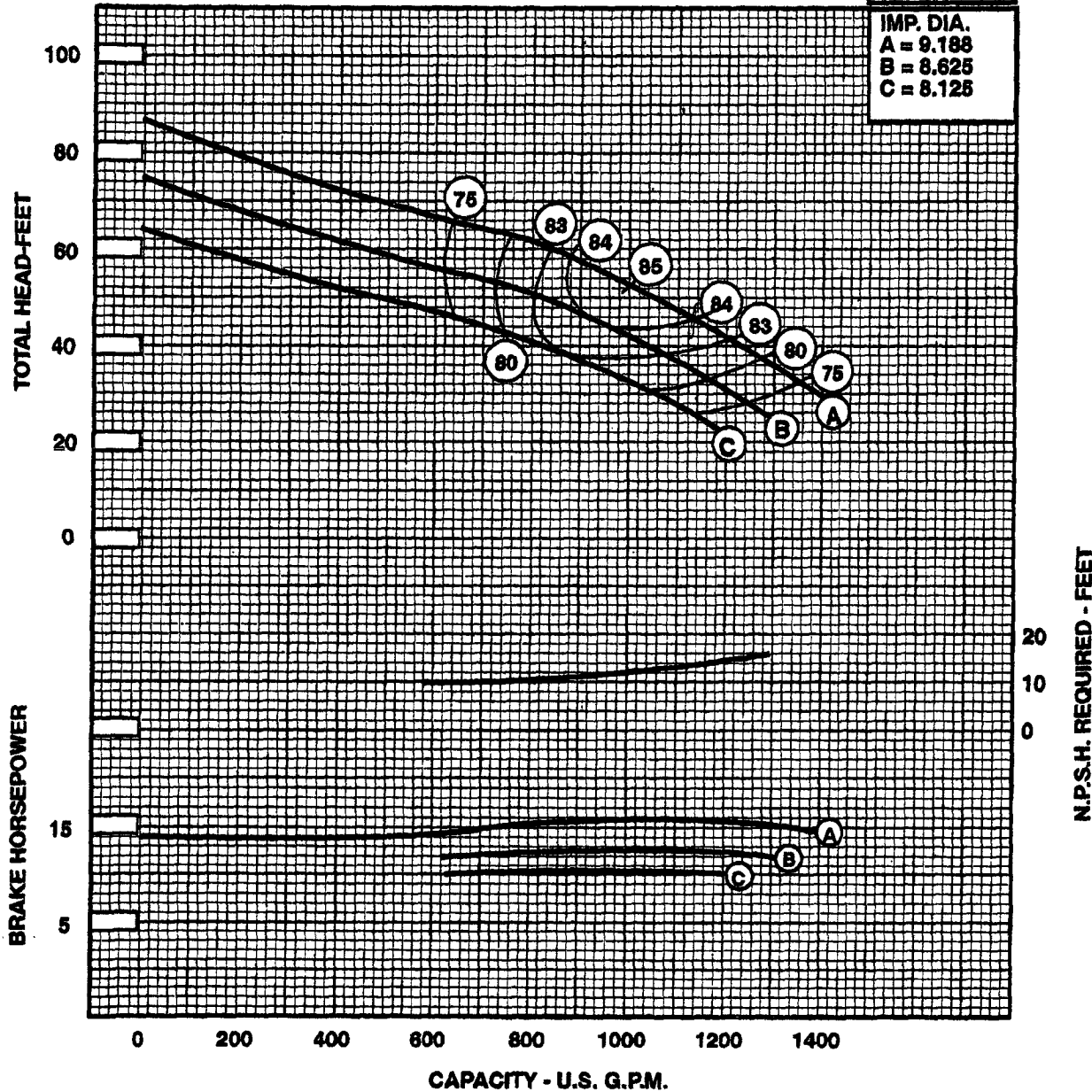
1770 R.P.M.

SINGLE STAGE LAB PERFORMANCE WITH STANDARD MATERIALS. EFFICIENCY SHOWN FOR 3 OR MORE STAGES. HORSE POWER SHOWN FOR ONE STAGE BASED ON 3 STAGE EFFICIENCY. CORRECTIONS SHOULD BE MADE FOR STAG AND MATERIAL.

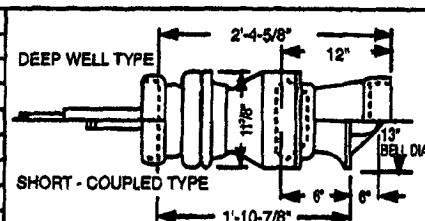
ONE ()
STAGE STAGES

PUMP PERFORMANCE

K = 9.4
IMP. DIA.
A = 9.188
B = 8.625
C = 8.125



EYE AREA - SQ. IN.	= 25.5	IMPELLER WT. - LBS.	= 16
WRP PER IMPELLER LB.-FT. ²	= 1.3	ONE STAGE WT. - LBS.	= 410
MAX. NO. STD. STAGES	= 10	ADD'L STAGE WT. - LBS.	= 145
MAX. OPERATING - P.S.I.	= 400	DISCH. - IN.	= 8.10
STD. LATERAL - IN.	= 0.375	SUCTION - IN.	= 8
STD. SHAFT DIA. - IN.	= 1.938	BOWL CONN. FLANGED-COLLET	
MAX. SHAFT DIA. - IN.	= —	ADD 10° PER ADDITIONAL STAGE.	
MIN. SUBMERGENCE - IN.	= 22		
MAX. ROUGHNESS - IN.	= 0.75		



William R. St. Clair

37811 18th Street

Tulare, CA 93276-5027

605.506.4262

Date **November 1999**

CURVE data



Pentair Pump Group

No. Stages	Eff. Change	MATERIAL	Eff. Change
1	-3	IMP. - C.I.	-1
2	-1	IMP. - NI-RI	-1
3	0	BOWL - BRZ.	-2
4	0	BOWL - NI-R.	-2

12RH

1770

R.P.M.

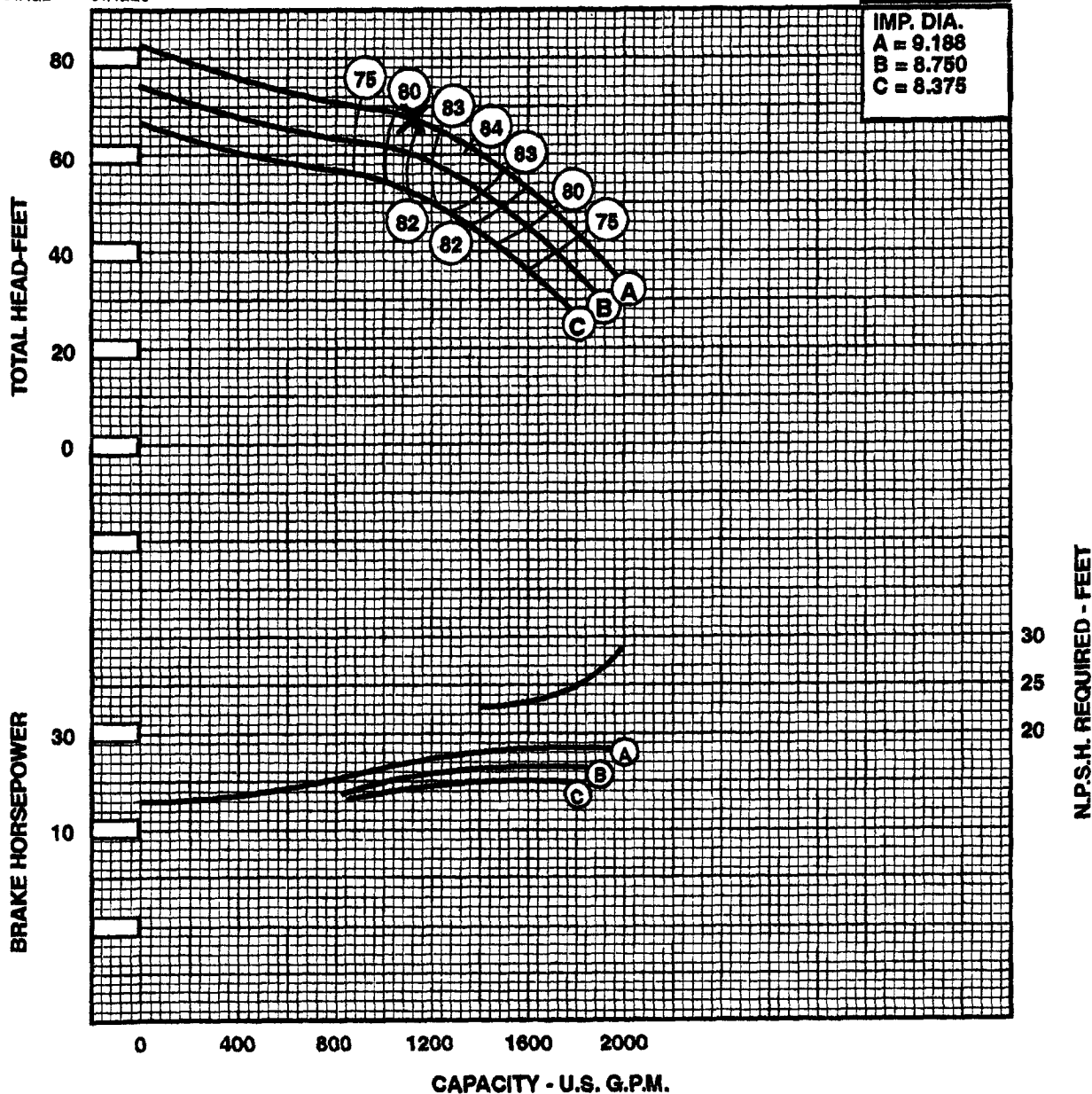
SINGLE STAGE LAB PERFORMANCE WITH STANDARD MATERIALS. EFFICIENCY SHOWN FOR 3 OR MORE STAGES. HORSE POWER SHOWN FOR ONE STAGE BASED ON 3 STAGE EFFICIENCY. CORRECTIONS SHOULD BE MADE FOR STAG AND MATERIAL.

ONE () STAGE STAGES

PUMP PERFORMANCE

K = 9.4

IMP. DIA.
A = 9.188
B = 8.750
C = 8.375



EYE AREA - SQ. IN.	= 25.5	IMPELLER WT. - LBS.	= 18
WR* PER IMPELLER LB.-FT. ²	= 1.3	ONE STAGE WT. - LBS.	= 410
MAX. NO. STD. STAGES	= 10	ADD'L STAGE WT. - LBS.	= 145
MAX. OPERATING - P.S.I.	= 400	DISCH. - IN.	= 8.10
STD. LATERAL - IN.	= 0.975	SUCTION - IN.	= 8
STD. SHAFT DIA. - IN.	= 1.938	BOWL CONN. FLANGED-COLLET	
MAX. SHAFT DIA. - IN.	= —	ADD 10" PER ADDITIONAL STAGE.	
MIN. SUBMERGENCE - IN.	= 24		

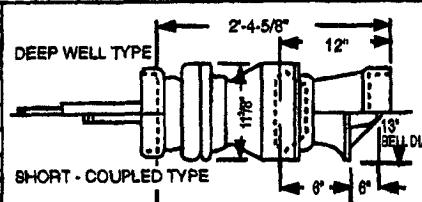


Exhibit "D"

William F. St. Clair
37644 184th Street
Tulare, SD 57476-7007
605-596-4262

1-11-03.

① At 1000 GPM Pump should produce
the following:

3 12RL Bowls @ 52' hd.

1 12RH Bowls @ 70' hd

TOTAL HEAD 226' hd.

② TOTAL HEAD PRODUCED @ 1000 GPM. = 226.
(well) elevation feet - 32.
friction head. - 1.

(Assumed: 300' 8" aluminum w/coupler)

TOTAL HEAD FEET 187

@ SYSTEM

81 PSI @ SYSTEM w/1000 GPM

JAN 11 2003

INMAN Irrigation

ABERDEEN, SD.

John McDowell

605-225-8122

William F. St. Clair
37644 184th Street
Tulare, SD 57476-7007
605-596-4983

PULLMAN DRILLING — DRILLERS LOG

Phone: 1-800-451-4884

Frankfort S.D.

Kevin Dettler
~~tenant~~
JOB NAME

LOCATION

4-18-02

DATE

RIG NO.

Paul Hoyer
FOREMAN

Jt No.	DEPTH	TIME	REMARKS
1	20		0-13 Yellow clay 13-20 Yellow sand
2	40		20-40 Coarse gray sand w/ coal
3	60		40-60 Coarse gray sand w/ coal
4	80		60-75 Coarse gray sand 75-80 Pearrock
5	80		80-88 Gravel 88-90 Shale
6			
7			
8			
9			
10			3" Well
11			T.O. 88'
12			20' 0/4 3" slotted
13			68' 3" blank
14			Pumped w/ air 50 G.P.M.
15			
16			William St Clair
17			37644 184 St.
18			Tulare S.D.
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			

William F. St. Clair
37644 184th Street
Tulare, SD 57470-7007
505-614-202

PULLMAN DRILLING — DRILLERS LOG

Phone: 1-800-451-4884

Kevin Dettler ^{owner}
Bill Sinclair
JOB NAME

Frankfort S.D.
NE 1/4 29-117-16
LOCATION

5-7-02
DATE

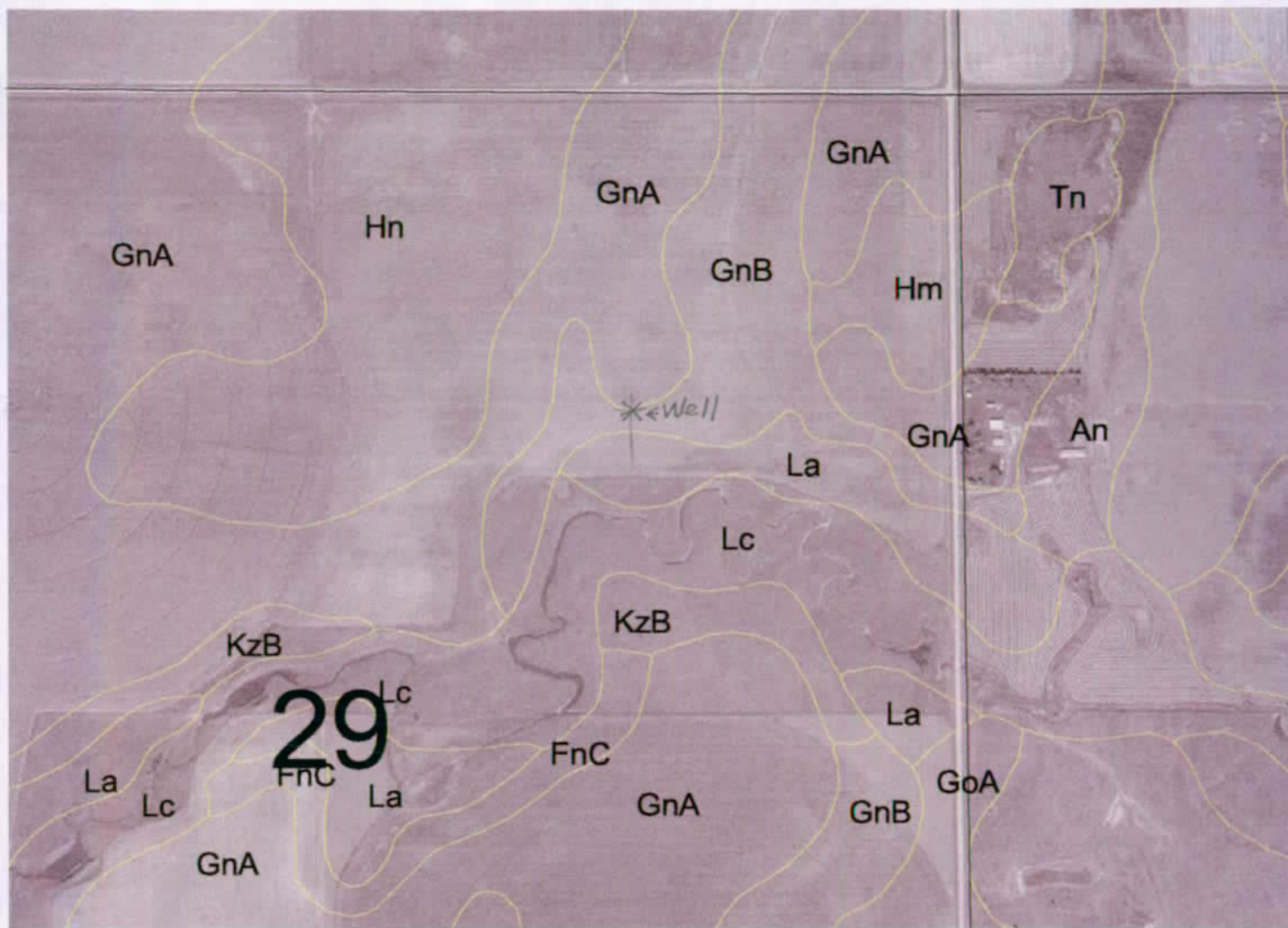
4
RIG NO.

Raynie Pullman
FOREMAN

JO No.	DEPTH	TIME	REMARKS
			Spink County
1	14		0-13 Yellow clay 13-44 Yellow sand
2	24		14-20 Yellow sand 20-24 Coarse gray sand w/ coal
3	34		24-34 Coarse gray sand w/ coal
4	44		34-44 Coarse gray sand w/ coal
5	54		44-54 Coarse gray sand w/ coal
6	64		54-64 Coarse gray sand w/ coal
7	74		64-74 Coarse gray sand
8	84		74-84 Med. to coarse gravel
9	88		84-88 Gravel w/ rocks at the bottom
10			
11			
12			
13			16" well
14			T.O. 88'
15			20' .057 16" slotted
16			68' 16" blank
17			
18			William St. Clair
19			37644 184 St
20			Tulare S.D.
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			

William F. St. Clair
37644 184th Street
Tulare, SD 57476-7007
805-596-1252

NE 1/4 29-117-61



0.2 0 0.2 0.4 Miles

Shane Jordan
DC-WRCS
1-6-03



Table 1 - SOIL INTERPRETIVE GROUPS

Oct 2001

SPINK COUNTY, SOUTH DAKOTA

musym:c	mapping_unit_name	soil:c	sSid	pct	sl	sh	cap	past	wind	rsid	weg	l	kf	T	hg
Aa	AASTAD LOAM, 0 TO 2 PERCENT SLOPES	AASTAD	MN0322	85	0	2	IIc-3	K	1	LOv	6	48	0.24	5	B
Ab	AASTAD-HAMERLY LOAMS, 0 TO 2 PERCENT SLOPES	AASTAD	MN0322	50	0	2	IIc-3	K	1	LOv	6	48	0.24	5	B
Ab	AASTAD-HAMERLY LOAMS, 0 TO 2 PERCENT SLOPES	HAMERLY	ND0033	35	0	2	IIe-4	A	1K	LSb	4L	86	0.24	5	C
Ad	AASTAD-TONKA COMPLEX, 0 TO 2 PERCENT SLOPES	AASTAD	MN0322	60	0	2	IIc-3	K	1	LOv	6	48	0.24	5	B
Ad	AASTAD-TONKA COMPLEX, 0 TO 2 PERCENT SLOPES	TONKA	ND0229	30	0	1	IVw-1	B2	10	WM	6	48	0.37	5	D/C
Ae	ABERDEEN-NAHON SILT LOAMS, TILL SUBSTRATUM,	ABERDEEN	SD0522	55	0	2	IIIs-1	E	4	Cy	6	48	0.37	5	C
Ae	ABERDEEN-NAHON SILT LOAMS, TILL SUBSTRATUM,	NAHON	SD0523	35	0	2	IVs-2	C	9C	Cp	6	48	0.37	2	D
Ah	ABERDEEN-NAHON SILTY CLAY LOAMS, 0 TO 2 PERCENT SLOPES	ABERDEEN	SD0144	55	0	2	IIIs-1	E	4	Cy	7	38	0.37	5	C
Ah	ABERDEEN-NAHON SILTY CLAY LOAMS, 0 TO 2 PERCENT SLOPES	NAHON	SD0055	35	0	2	IVs-2	C	9C	Cp	7	38	0.37	2	D
An	ABERDEEN-NAHON-HEIL SILT LOAMS, 0 TO 2 PERCENT SLOPES	ABERDEEN	SD0144	45	0	2	IIIs-1	E	4	Cy	6	48	0.37	5	C
An	ABERDEEN-NAHON-HEIL SILT LOAMS, 0 TO 2 PERCENT SLOPES	NAHON	SD0055	25	0	2	IVs-2	C	9C	Cp	6	48	0.37	2	D
An	ABERDEEN-NAHON-HEIL SILT LOAMS, 0 TO 2 PERCENT SLOPES	HEIL	ND0059	20	0	1	Vis-6	B2	10	CD	6	48	0.37	2	D
Ao	ABERDEEN-NAHON-HEIL SILT LOAMS, TILL SUBSTRATUM,	ABERDEEN	SD0522	45	0	2	IIIs-1	E	4	Cy	6	48	0.37	5	C
Ao	ABERDEEN-NAHON-HEIL SILT LOAMS, TILL SUBSTRATUM,	NAHON	SD0523	25	0	2	IVs-2	C	9C	Cp	6	48	0.37	2	D
Ao	ABERDEEN-NAHON-HEIL SILT LOAMS, TILL SUBSTRATUM,	HEIL	ND0059	20	0	1	Vis-6	B2	10	CD	6	48	0.37	2	D
At	AQUENTS, LOAMY, 0 TO 2 PERCENT SLOPES	AQUENTS, LOAMY	SD3022	90	0	2	Vw-4	NS	10	NA	4L	86	0.32	5	D
BaC	BEADLE LOAM, 6 TO 9 PERCENT SLOPES	BEADLE	SD0017	80	6	9	IVe-7	E	4	Cy	6	48	0.28	5	C
BdA	BEADLE-DUDLEY COMPLEX, 0 TO 2 PERCENT SLOPES	BEADLE	SD0017	50	0	2	IIe-1	E	4	Cy	6	48	0.28	5	C
BdA	BEADLE-DUDLEY COMPLEX, 0 TO 2 PERCENT SLOPES	DUDLEY	SD0034	35	0	2	IVs-2	C	9C	Cp	6	48	0.37	2	D
BeA	BEADLE-STICKNEY COMPLEX, 0 TO 2 PERCENT SLOPES	BEADLE	SD0017	60	0	2	IIe-1	E	4	Cy	6	48	0.28	5	C
BeA	BEADLE-STICKNEY COMPLEX, 0 TO 2 PERCENT SLOPES	STICKNEY	SD0035	30	0	2	IIIs-1	E	4	Cy	6	48	0.37	5	C
BeB	BEADLE-STICKNEY COMPLEX, 1 TO 6 PERCENT SLOPES	BEADLE	SD0017	60	2	6	IIIs-3	E	4	Cy	6	48	0.28	5	C
BeB	BEADLE-STICKNEY COMPLEX, 1 TO 6 PERCENT SLOPES	STICKNEY	SD0035	30	1	2	IIIs-1	E	4	Cy	6	48	0.37	5	C
BfA	BEADLE-STICKNEY COMPLEX, 0 TO 2 PERCENT SLOPES, VERY STONY	BEADLE	SD0611	60	0	2	VIIIs-6	NS	10	Cy	8	na	0.28	5	C
BfA	BEADLE-STICKNEY COMPLEX, 0 TO 2 PERCENT SLOPES, VERY STONY	STICKNEY	SD0612	30	0	2	VIIIs-6	NS	10	Cy	8	na	0.37	5	C
BfB	BEADLE-STICKNEY COMPLEX, 1 TO 6 PERCENT SLOPES, VERY STONY	BEADLE	SD0611	60	2	6	VIIIs-6	NS	10	Cy	8	na	0.28	5	C
BfB	BEADLE-STICKNEY COMPLEX, 1 TO 6 PERCENT SLOPES, VERY STONY	STICKNEY	SD0612	30	1	2	VIIIs-6	NS	10	Cy	8	na	0.37	5	C
Bg	BEARDEN SILT LOAM, 0 TO 2 PERCENT SLOPES	BEARDEN	ND0008	85	0	2	IIe-4	F	1K	LSb	4L	86	0.28	5	C
Bk	BEARDEN-TONKA SILT LOAMS, 0 TO 2 PERCENT SLOPES	BEARDEN	ND0008	60	0	2	IIe-4	F	1K	LSb	4L	86	0.28	5	C
Bk	BEARDEN-TONKA SILT LOAMS, 0 TO 2 PERCENT SLOPES	TONKA	ND0229	30	0	1	IVw-1	B2	10	WM	6	48	0.37	5	D/C
Bo	BEOTIA SILT LOAM, 0 TO 2 PERCENT SLOPES	BEOTIA	SD0169	90	0	2	IIc-3	K	3	Si	6	48	0.28	5	B
Br	BEOTIA-RONDELL SILT LOAMS, 0 TO 3 PERCENT SLOPES	BEOTIA	SD0169	50	0	2	IIc-3	K	3	Si	6	48	0.28	5	B
Br	BEOTIA-RONDELL SILT LOAMS, 0 TO 3 PERCENT SLOPES	RONDELL	SD0418	35	0	3	IIe-4	F	1K	LSb	4L	86	0.28	5	B
Bs	BEOTIA-WINSHIP SILT LOAMS, 0 TO 2 PERCENT SLOPES	BEOTIA	SD0038	60	0	2	IIc-3	K	1	LOv	6	48	0.28	5	B
Bs	BEOTIA-WINSHIP SILT LOAMS, 0 TO 2 PERCENT SLOPES	WINSHIP	SD0369	30	0	1	IIw-1	A	1	LOv	6	48	0.37	5	C
Bt	BEOTIA-WINSHIP SILT LOAMS, TILL SUBSTRATUM,	BEOTIA	SD0539	60	0	2	IIc-3	K	1	LOv	6	48	0.28	5	B
Bt	BEOTIA-WINSHIP SILT LOAMS, TILL SUBSTRATUM,	WINSHIP	SD0537	30	0	1	IIw-1	A	1	LOv	6	48	0.37	5	C
Bu	BON LOAM, 0 TO 2 PERCENT SLOPES	BON	SD0022	90	0	2	IIc-1	K	1	LOv	6	48	0.24	5	B
Bw	BON LOAM, CHanneled	BON	SD0314	85	0	2	VIw-1	NS	1	LOv	6	48	0.24	5	B
BxD	BUSE-BARNES LOAMS, 9 TO 20 PERCENT SLOPES	BUSE	MN0317	55	9	20	VIe-3	G	8	TU	4L	86	0.28	5	B

musym:c mapping_unit_name

soil:c

BxD BUSE-BARNES LOAMS, 9 TO 20 PERCENT SLOPES
 ByE BUSE-BARNES LOAMS, 9 TO 40 PERCENT SLOPES, VERY STONY
 ByE BUSE-BARNES LOAMS, 9 TO 40 PERCENT SLOPES, VERY STONY
 BzE BUSE-LANGHEI COMPLEX, 15 TO 40 PERCENT SLOPES
 BzE BUSE-LANGHEI COMPLEX, 15 TO 40 PERCENT SLOPES
 Ca CAMTOWN-TURTON LOAMS, 0 TO 2 PERCENT SLOPES
 Ca CAMTOWN-TURTON LOAMS, 0 TO 2 PERCENT SLOPES
 Cf CAVOUR-FERNEY LOAMS, 0 TO 2 PERCENT SLOPES
 Cf CAVOUR-FERNEY LOAMS, 0 TO 2 PERCENT SLOPES
 Co COLVIN SILTY CLAY LOAM, SALINE, 0 TO 1 PERCENT SLOPES
 Cr CRESBARD-CAVOUR LOAMS, 0 TO 2 PERCENT SLOPES
 Cr CRESBARD-CAVOUR LOAMS, 0 TO 2 PERCENT SLOPES
 Cs CRESBARD-CAVOUR-HEIL COMPLEX, 0 TO 2 PERCENT SLOPES
 Cs CRESBARD-CAVOUR-HEIL COMPLEX, 0 TO 2 PERCENT SLOPES
 Cs CRESBARD-CAVOUR-HEIL COMPLEX, 0 TO 2 PERCENT SLOPES
 Ct CROSSPLAIN-TETONKA COMPLEX, 0 TO 1 PERCENT SLOPES
 Ct CROSSPLAIN-TETONKA COMPLEX, 0 TO 1 PERCENT SLOPES
 Da DAVIS-NORTHVILLE COMPLEX, 0 TO 2 PERCENT SLOPES
 Da DAVIS-NORTHVILLE COMPLEX, 0 TO 2 PERCENT SLOPES
 Db DAVISON LOAM, 0 TO 2 PERCENT SLOPES
 Dd DAVISON-TETONKA COMPLEX, 0 TO 2 PERCENT SLOPES
 Dd DAVISON-TETONKA COMPLEX, 0 TO 2 PERCENT SLOPES
 DeA DELMONT-ENET LOAMS, 0 TO 2 PERCENT SLOPES
 DeA DELMONT-ENET LOAMS, 0 TO 2 PERCENT SLOPES
 Dk DIMO LOAM, 0 TO 2 PERCENT SLOPES
 Dm DIMO-GRAT LOAMS, 0 TO 2 PERCENT SLOPES
 Dm DIMO-GRAT LOAMS, 0 TO 2 PERCENT SLOPES
 DoA DOLAND-EMBDEN COMPLEX, 0 TO 3 PERCENT SLOPES
 DoA DOLAND-EMBDEN COMPLEX, 0 TO 3 PERCENT SLOPES
 Dq DOVECREEK SILT LOAM, 0 TO 2 PERCENT SLOPES
 Dr DOVRAY SILTY CLAY, 0 TO 1 PERCENT SLOPES
 Du DUDLEY-JERAULD SILT LOAMS, 0 TO 2 PERCENT SLOPES
 Du DUDLEY-JERAULD SILT LOAMS, 0 TO 2 PERCENT SLOPES
 Dx DURRSTEIN SILT LOAM, 0 TO 1 PERCENT SLOPES
 Ea ECKMAN VERY FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES
 EcA ECKMAN-GARDENA VERY FINE SANDY LOAMS, 0 TO 2 PERCENT SLOPES
 EcA ECKMAN-GARDENA VERY FINE SANDY LOAMS, 0 TO 2 PERCENT SLOPES
 EcB ECKMAN-GARDENA VERY FINE SANDY LOAMS, 2 TO 6 PERCENT SLOPES
 EcB ECKMAN-GARDENA VERY FINE SANDY LOAMS, 2 TO 6 PERCENT SLOPES
 EdB ECKMAN-ZELL VERY FINE SANDY LOAMS, 2 TO 6 PERCENT SLOPES
 EdB ECKMAN-ZELL VERY FINE SANDY LOAMS, 2 TO 6 PERCENT SLOPES
 EeB EDGELEY LOAM, 2 TO 6 PERCENT SLOPES
 EeC EDGELEY LOAM, 6 TO 9 PERCENT SLOPES
 EeD EDGELEY LOAM, 9 TO 20 PERCENT SLOPES

BARNES
 BUSE
 BARNES
 BUSE
 LANGHEI
 CAMTOWN
 TURTON
 CAVOUR
 FERNEY
 COLVIN
 CRESBARD
 CAVOUR
 CRESBARD
 CAVOUR
 HEIL
 CROSSPLAIN
 TETONKA
 DAVIS
 NORTHVILLE
 DAVISON
 DAVISON
 TETONKA
 DELMONT
 ENET
 DIMO
 DIMO
 GRAT
 DOLAND
 EMBDEN
 DOVECREEK
 DOVRAY
 DUDLEY
 JERAULD
 DURRSTEIN
 ECKMAN
 ECKMAN
 GARDENA
 ECKMAN
 GARDENA
 ECKMAN
 ZELL
 EDGELEY
 EDGELEY
 EDGELEY

s5id	pct	sl	sh	cap	past	wind	rsid	weg	i	kf	T	hg
ND0119	35	9	15	IVe-1	F	3	Si	6	48	0.24	5	B
MN0310	50	9	40	VIIe-6	NS	10	TU	8	na	0.28	5	B
ND0120	35	9	25	VIIe-6	NS	10	Si	8	na	0.24	5	B
MN0317	50	15	40	VIIe-3	NS	10	TU	4L	86	0.28	5	B
MN0476	40	15	40	VIIe-3	NS	10	TU	4L	86	0.32	5	B
SD0290	55	0	2	IIIe-1	E	4	Cy	5	56	0.32	5	C
SD0263	30	0	2	IVs-2	C	9L	Cp	5	56	0.32	2	D
SD0150	55	0	2	IVs-2	C	9C	Cp	6	48	0.32	2	D
SD0276	35	0	2	Vis-1	NS	10	TCp	6	48	0.32	2	D
ND0181	85	0	1	IVw-4	J	10	SSb	4L	86	0.37	5	C/D
SD0001	60	0	2	IIIe-1	E	4	Cy	6	48	0.32	5	C
SD0150	30	0	2	IVs-2	C	9C	Cp	6	48	0.32	2	D
SD0001	40	0	2	IIIe-1	E	4	Cy	6	48	0.32	5	C
SD0150	30	0	2	IVs-2	C	9C	Cp	6	48	0.32	2	D
ND0059	20	0	1	Vis-6	B2	10	CD	6	48	0.37	2	D
SD0032	60	0	1	IIw-1	A	2	LOv	6	48	0.32	5	C
SD0044	30	0	1	IVw-1	B2	10	WM	6	48	0.37	5	D/C
SD0274	55	0	2	IIc-1	K	1	LOv	6	48	0.24	5	B
SD0538	35	0	2	IIIe-1	E	4	Cy	6	48	0.37	5	C
SD0036	85	0	2	IIe-4	F	1K	LSb	4L	86	0.28	5	B
SD0036	50	0	2	IIe-4	F	1K	LSb	4L	86	0.28	5	B
SD0044	40	0	1	IVw-1	B2	10	WM	6	48	0.37	5	D/C
SD0023	55	0	2	IVs-1	D2	6G	SwG	6	48	0.28	3	B
SD0027	35	0	2	IIIe-2	D1	6G	Si	6	48	0.28	4	B
SD0031	85	0	2	IIIe-2	K	1	LOv	6	48	0.24	4	B
SD0031	55	0	2	IIw-1	K	1	LOv	6	48	0.24	4	B
SD0608	30	0	1	IVw-1	B2	10	WM	6	48	0.32	4	D
MN0096	50	0	2	IIc-2	F	3	Si	6	48	0.24	5	B
ND0009	30	0	2	IIIe-7	H	5	Sy	3	86	0.2	5	B
SD0614	90	0	2	IIc-1	K	1	LOv	6	48	0.28	5	B
MN0052	90	0	1	Vw-4	B2	10	SM	4	86	0.28	5	D/C
SD0034	55	0	2	IVs-2	C	9C	Cp	6	48	0.37	2	D
SD0057	35	0	2	Vis-1	NS	10	TCp	6	48	0.37	2	D
SD0024	85	0	1	Vis-6	J	10	SL	6	48	0.37	2	D
ND0018	85	0	2	IIe-6	F	3	Si	3	86	0.28	5	B
ND0018	50	0	2	IIe-6	F	3	Si	3	86	0.28	5	B
ND0015	40	0	2	IIe-6	K	1	Si	3	86	0.28	5	B
ND0018	60	2	6	IIe-1	F	3	Si	3	86	0.28	5	B
ND0015	30	2	3	IIe-6	K	1	Si	3	86	0.28	5	B
ND0018	60	2	6	IIe-1	F	3	Si	3	86	0.28	5	B
SD0196	30	2	6	IIIe12	G	8	TU	3	86	0.28	5	B
ND0136	85	2	6	IIe-1	F	6D	Si	6	48	0.32	3	C
ND0136	85	6	9	IIIe-1	F	6D	Si	6	48	0.32	3	C
ND0136	85	9	20	Vle-1	F	6D	Si	6	48	0.32	3	C

musym:c mapping_unit_name

soil:c

s5id	pct	sl	sh	cap	past	wind	rsid	weg	l	Kf	T	hg
SD0140	50	0	2	IIIe-7	H	5	Sy	3	86	0.2	5	B
ND0009	40	0	2	IIIe-7	H	5	Sy	3	86	0.2	5	B
SD0140	50	2	6	IIIe-8	H	5	Sy	3	86	0.2	5	B
ND0009	35	2	6	IIIe-8	H	5	Sy	3	86	0.2	5	B
NE0032	85	0	2	IVe-10	A	2	Sb	2	134	0.17	5	A
SD0040	50	25	40	VIIe-3	NS	10	TU	4L	86	0.28	5	B
SD0018	40	25	40	VIIe-3	NS	10	TU	4L	86	0.28	5	B
SD0040	55	9	20	VIe-3	G	8	TU	4L	86	0.28	5	B
SD0048	35	9	15	IVe-1	F	3	Si	6	48	0.28	5	B
SD0214	50	0	2	Vis-1	NS	10	TCp	6	48	0.37	2	D
SD0144	25	0	2	IIIe-1	E	4	Cy	6	48	0.37	5	C
SD0055	20	0	2	IVs-2	C	9C	Cp	6	48	0.37	2	D
SD0524	50	0	2	Vis-1	NS	10	TCp	6	48	0.37	2	D
SD0522	25	0	2	IIIe-1	E	4	Cy	6	48	0.37	5	C
SD0523	20	0	2	IVs-2	C	9C	Cp	6	48	0.37	2	D
SD0214	50	0	2	Vis-1	NS	10	TCp	6	48	0.37	2	D
ND0059	40	0	1	Vis-6	B2	10	CD	6	48	0.37	2	D
SD0524	50	0	2	Vis-1	NS	10	TCp	6	48	0.37	2	D
ND0059	40	0	1	Vis-6	B2	10	CD	6	48	0.37	2	D
SD0049	45	1	3	Vis-1	NS	10	TCp	6	48	0.37	2	D
SD0368	40	2	4	Ile-5	F	3	Si	6	48	0.37	5	B
SD0255	50	0	2	IVs-2	C	9W	Cp	6	48	0.32	2	D
SD0024	35	0	1	Vis-6	J	10	SL	6	48	0.37	2	D
SD0372	50	0	2	Vis-1	NS	10	TCp	6	48	0.32	2	D
ND0059	40	0	1	Vis-6	B2	10	CD	6	48	0.37	2	D
SD0147	60	0	2	IVe-9	H	5	Sy	2	134	0.17	5	A
NE0114	30	0	2	IVe-10	A	2	Sb	2	134	0.17	5	A
SD0147	45	0	2	IVe-9	H	5	Sy	2	134	0.17	5	A
NE0114	25	0	2	IVe-10	A	2	Sb	2	134	0.17	5	A
SD0604	20	0	1	IVw-2	B2	10	WM	3	86	0.24	5	C
ND0137	50	0	3	IIc-2	F	3	Si	6	48	0.24	5	B
MN0322	40	0	2	IIc-3	K	1	LOv	6	48	0.24	5	B
ND0137	60	3	6	Ile-2	F	3	Si	6	48	0.24	5	B
MN0322	30	1	2	IIc-3	K	1	LOv	6	48	0.24	5	B
ND0137	55	6	9	IIIe-2	F	3	Si	6	48	0.24	5	B
MN0317	35	6	9	IVe-3	G	8	TU	4L	86	0.28	5	B
ND0137	50	2	6	Ile-2	F	3	Si	6	48	0.24	5	B
MN0317	25	3	6	IIIe-12	G	8	TU	4L	86	0.28	5	B
MN0322	20	1	2	IIc-3	K	1	LOv	6	48	0.24	5	B
ND0137	45	6	9	IIIe-2	F	3	Si	6	48	0.24	5	B
MN0317	30	6	9	IVe-3	G	8	TU	4L	86	0.28	5	B
MN0326	20	2	6	Ile-3	F	1	Si	6	48	0.24	5	B
ND0137	55	0	2	IIc-2	F	3	Si	6	48	0.24	5	B
SD0001	30	0	2	IIIe-1	E	4	Cy	6	48	0.32	5	C

musym:c	mapping_unit_name
EgA	EGELAND-EMBDEN COMPLEX, 0 TO 2 PERCENT SLOPES
EgA	EGELAND-EMBDEN COMPLEX, 0 TO 2 PERCENT SLOPES
EgB	EGELAND-EMBDEN COMPLEX, 2 TO 6 PERCENT SLOPES
EgB	EGELAND-EMBDEN COMPLEX, 2 TO 6 PERCENT SLOPES
Ek	ELSMERE LOAMY SAND, 0 TO 2 PERCENT SLOPES
EmE	ETHAN-BETTS LOAMS, 15 TO 40 PERCENT SLOPES
EmE	ETHAN-BETTS LOAMS, 15 TO 40 PERCENT SLOPES
EnD	ETHAN-HAND LOAMS, 9 TO 20 PERCENT SLOPES
EnD	ETHAN-HAND LOAMS, 9 TO 20 PERCENT SLOPES
Er	EXLINE-ABERDEEN-NAHON SILT LOAMS, 0 TO 2 PERCENT SLOPES
Er	EXLINE-ABERDEEN-NAHON SILT LOAMS, 0 TO 2 PERCENT SLOPES
Er	EXLINE-ABERDEEN-NAHON SILT LOAMS, 0 TO 2 PERCENT SLOPES
EI	EXLINE-ABERDEEN-NAHON SILT LOAMS, TILL SUBSTRATUM,
EI	EXLINE-ABERDEEN-NAHON SILT LOAMS, TILL SUBSTRATUM,
EI	EXLINE-ABERDEEN-NAHON SILT LOAMS, TILL SUBSTRATUM,
Ew	EXLINE-HEIL SILT LOAMS, 0 TO 2 PERCENT SLOPES
Ew	EXLINE-HEIL SILT LOAMS, 0 TO 2 PERCENT SLOPES
Ex	EXLINE-HEIL SILT LOAMS, TILL SUBSTRATUM,
Ex	EXLINE-HEIL SILT LOAMS, TILL SUBSTRATUM,
EyA	EXLINE-PUTNEY SILT LOAMS, 1 TO 4 PERCENT SLOPES
EyA	EXLINE-PUTNEY SILT LOAMS, 1 TO 4 PERCENT SLOPES
Fa	FARMSWORTH-DURRSTEIN SILT LOAMS, 0 TO 2 PERCENT SLOPES
Fa	FARMSWORTH-DURRSTEIN SILT LOAMS, 0 TO 2 PERCENT SLOPES
Fe	FERNEY-HEIL COMPLEX, 0 TO 2 PERCENT SLOPES
Fe	FERNEY-HEIL COMPLEX, 0 TO 2 PERCENT SLOPES
Ff	FORESTBURG-ELSMERE LOAMY SANDS, 0 TO 2 PERCENT SLOPES
Ff	FORESTBURG-ELSMERE LOAMY SANDS, 0 TO 2 PERCENT SLOPES
Fh	FORESTBURG-ELSMERE-TOKO COMPLEX, 0 TO 2 PERCENT SLOPES
Fh	FORESTBURG-ELSMERE-TOKO COMPLEX, 0 TO 2 PERCENT SLOPES
Fh	FORESTBURG-ELSMERE-TOKO COMPLEX, 0 TO 2 PERCENT SLOPES
FmA	FORMAN-AASTAD LOAMS, 0 TO 3 PERCENT SLOPES
FmA	FORMAN-AASTAD LOAMS, 0 TO 3 PERCENT SLOPES
FmB	FORMAN-AASTAD LOAMS, 1 TO 6 PERCENT SLOPES
FmB	FORMAN-AASTAD LOAMS, 1 TO 6 PERCENT SLOPES
FnC	FORMAN-BUSE LOAMS, 6 TO 9 PERCENT SLOPES
FnC	FORMAN-BUSE LOAMS, 6 TO 9 PERCENT SLOPES
FrB	FORMAN-BUSE-AASTAD LOAMS, 1 TO 6 PERCENT SLOPES
FrB	FORMAN-BUSE-AASTAD LOAMS, 1 TO 6 PERCENT SLOPES
FrB	FORMAN-BUSE-AASTAD LOAMS, 1 TO 6 PERCENT SLOPES
FrC	FORMAN-BUSE-AASTAD LOAMS, 2 TO 9 PERCENT SLOPES
FrC	FORMAN-BUSE-AASTAD LOAMS, 2 TO 9 PERCENT SLOPES
FrC	FORMAN-BUSE-AASTAD LOAMS, 2 TO 9 PERCENT SLOPES
FsA	FORMAN-CRESBARD LOAMS, 0 TO 2 PERCENT SLOPES
FsA	FORMAN-CRESBARD LOAMS, 0 TO 2 PERCENT SLOPES

soil:c
EGELAND
EMBDEN
EGELAND
EMBDEN
ELSMERE
ETHAN
BETTS
ETHAN
HAND
EXLINE
ABERDEEN
NAHON
EXLINE
ABERDEEN
NAHON
EXLINE
HEIL
EXLINE
HEIL
EXLINE
PUTNEY
FARMSWORTH
DURRSTEIN
FERNEY
HEIL
FORESTBURG
ELSMERE
FORESTBURG
ELSMERE
TOKO
FORMAN
AASTAD
FORMAN
AASTAD
FORMAN
BUSE
FORMAN
BUSE
AASTAD
FORMAN
BUSE
AASTAD
FORMAN
CRESBARD

musym:c	mapping_unit_name	soil:c	s5id	pct	sl	sh	cap	past	wind	rsid	weg	l	kf	T	hg
FsB	FORMAN-CRESBARD LOAMS, 2 TO 6 PERCENT SLOPES	FORMAN	ND0137	60	2	6	Ile-2	F	3	Si	6	48	0.24	5	B
FsB	FORMAN-CRESBARD LOAMS, 2 TO 6 PERCENT SLOPES	CRESBARD	SD0001	30	2	6	Ile-15	E	4	Cy	6	48	0.32	5	C
FtA	FORMAN-CRESBARD-TONKA COMPLEX, 0 TO 2 PERCENT SLOPES	FORMAN	ND0137	45	0	2	Ile-2	F	3	Si	6	48	0.24	5	B
FtA	FORMAN-CRESBARD-TONKA COMPLEX, 0 TO 2 PERCENT SLOPES	CRESBARD	SD0001	25	0	2	Ile-1	E	4	Cy	6	48	0.32	5	C
FtA	FORMAN-CRESBARD-TONKA COMPLEX, 0 TO 2 PERCENT SLOPES	TONKA	ND0229	20	0	1	Ivw-1	B2	10	WM	6	48	0.37	5	D/C
Ga	GARDENA VERY FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES	GARDENA	ND0015	90	0	2	Ile-6	K	1	Si	3	86	0.28	5	B
Gd	GARDENA-GLYNDON SILT LOAMS, 0 TO 2 PERCENT SLOPES	GARDENA	ND0015	55	0	2	Ile-3	K	1	Si	5	56	0.28	5	B
Gd	GARDENA-GLYNDON SILT LOAMS, 0 TO 2 PERCENT SLOPES	GLYNDON	MN0027	35	0	2	Ile-4	F	1K	LSb	4L	86	0.28	5	B
Ge	GARDENA-TURTON VERY FINE SANDY LOAMS, 0 TO 2 PERCENT SLOPES	GARDENA	ND0015	50	0	2	Ile-6	K	1	Si	3	86	0.28	5	B
Ge	GARDENA-TURTON VERY FINE SANDY LOAMS, 0 TO 2 PERCENT SLOPES	TURTON	SD0263	35	0	2	Ive13	C	9L	Cp	3	86	0.24	2	D
GgA	GREAT BEND SILT LOAM, 0 TO 2 PERCENT SLOPES	GREAT BEND	SD0154	90	0	2	Ile-2	F	3	Si	6	48	0.32	5	B
GnA	GREAT BEND-BEOTIA SILT LOAMS, 0 TO 2 PERCENT SLOPES	GREAT BEND	SD0154	50	0	2	Ile-2	F	3	Si	6	48	0.32	5	B
GnA	GREAT BEND-BEOTIA SILT LOAMS, 0 TO 2 PERCENT SLOPES	BEOTIA	SD0169	40	0	2	Ile-3	K	3	Si	6	48	0.28	5	B
GnB	GREAT BEND-BEOTIA SILT LOAMS, 1 TO 6 PERCENT SLOPES	GREAT BEND	SD0154	60	2	6	Ile-1	F	3	Si	6	48	0.32	5	B
GnB	GREAT BEND-BEOTIA SILT LOAMS, 1 TO 6 PERCENT SLOPES	BEOTIA	SD0169	30	1	2	Ile-3	K	3	Si	6	48	0.28	5	B
GoA	GREAT BEND-BEOTIA SILT LOAMS, TILL SUBSTRATUM, 0 TO 2	GREAT BEND	SD0519	50	0	2	Ile-2	F	3	Si	6	48	0.32	5	B
GoA	GREAT BEND-BEOTIA SILT LOAMS, TILL SUBSTRATUM, 0 TO 2	BEOTIA	SD0520	40	0	2	Ile-3	K	3	Si	6	48	0.28	5	B
GpA	GREAT BEND-PUTNEY SILT LOAMS, 0 TO 2 PERCENT SLOPES	GREAT BEND	SD0154	50	0	2	Ile-2	F	3	Si	6	48	0.32	5	B
GpA	GREAT BEND-PUTNEY SILT LOAMS, 0 TO 2 PERCENT SLOPES	PUTNEY	SD0368	35	0	2	Ile-3	F	3	Si	6	48	0.37	5	B
GpB	GREAT BEND-PUTNEY SILT LOAMS, 2 TO 4 PERCENT SLOPES	GREAT BEND	SD0154	50	2	4	Ile-1	F	3	Si	6	48	0.32	5	B
GpB	GREAT BEND-PUTNEY SILT LOAMS, 2 TO 4 PERCENT SLOPES	PUTNEY	SD0368	35	2	4	Ile-5	F	3	Si	6	48	0.37	5	B
GIB	GREAT BEND-ZELL SILT LOAMS, 2 TO 6 PERCENT SLOPES	GREAT BEND	SD0154	60	2	6	Ile-1	F	3	Si	6	48	0.32	5	B
GIB	GREAT BEND-ZELL SILT LOAMS, 2 TO 6 PERCENT SLOPES	ZELL	SD0196	30	2	6	Ile12	G	8	TU	4L	86	0.32	5	B
GIC	GREAT BEND-ZELL SILT LOAMS, 4 TO 9 PERCENT SLOPES	GREAT BEND	SD0154	50	6	9	Ile-1	F	3	Si	6	48	0.32	5	B
GIC	GREAT BEND-ZELL SILT LOAMS, 4 TO 9 PERCENT SLOPES	ZELL	SD0196	40	6	9	Ive-3	G	8	TU	4L	86	0.32	5	B
GzC	GREAT BEND-ZELL-HUFFTON SILT LOAMS, 4 TO 9 PERCENT SLOPES	GREAT BEND	SD0154	45	4	9	Ile-1	F	3	Si	6	48	0.32	5	B
GzC	GREAT BEND-ZELL-HUFFTON SILT LOAMS, 4 TO 9 PERCENT SLOPES	ZELL	SD0196	25	6	9	Ive-3	G	8	TU	4L	86	0.32	5	B
GzC	GREAT BEND-ZELL-HUFFTON SILT LOAMS, 4 TO 9 PERCENT SLOPES	HUFFTON	SD0367	20	6	9	Ive-3	G	8	TU	4L	86	0.37	5	B
HaA	HAMERLY LOAM, 0 TO 2 PERCENT SLOPES	HAMERLY	ND0033	85	0	2	Ile-4	A	1K	LSb	4L	86	0.24	5	C
Hb	HAMERLY-TONKA COMPLEX, 0 TO 2 PERCENT SLOPES	HAMERLY	ND0033	50	0	2	Ile-4	A	1K	LSb	4L	86	0.24	5	C
Hb	HAMERLY-TONKA COMPLEX, 0 TO 2 PERCENT SLOPES	TONKA	ND0229	40	0	1	Ivw-1	B2	10	WM	6	48	0.37	5	D/C
HcA	HAND-BONILLA LOAMS, 0 TO 3 PERCENT SLOPES	HAND	SD0048	50	0	2	Ile-2	F	3	Si	6	48	0.28	5	B
HcA	HAND-BONILLA LOAMS, 0 TO 3 PERCENT SLOPES	BONILLA	SD0020	40	0	2	Ile-3	K	1	LOv	6	48	0.24	5	B
HcB	HAND-BONILLA LOAMS, 1 TO 6 PERCENT SLOPES	HAND	SD0048	60	2	6	Ile-1	F	3	Si	6	48	0.28	5	B
HcB	HAND-BONILLA LOAMS, 1 TO 6 PERCENT SLOPES	BONILLA	SD0020	30	1	2	Ile-3	K	1	LOv	6	48	0.24	5	B
HdA	HAND-CARTHAGE FINE SANDY LOAMS, 0 TO 3 PERCENT SLOPES	HAND	SD0048	50	0	2	Ile-7	F	3	Sy	3	86	0.2	5	B
HdA	HAND-CARTHAGE FINE SANDY LOAMS, 0 TO 3 PERCENT SLOPES	CARTHAGE	SD0146	40	0	2	Ile-7	H	5	Sy	3	86	0.2	5	B
He	HAND-CARTHAGE-OVERSHUE FINE SANDY LOAMS, 0 TO 3 PERCENT SLOPES	HAND	SD0048	45	0	2	Ile-7	F	3	Sy	3	86	0.2	5	B
He	HAND-CARTHAGE-OVERSHUE FINE SANDY LOAMS, 0 TO 3 PERCENT SLOPES	CARTHAGE	SD0146	25	0	2	Ile-7	H	5	Sy	3	86	0.2	5	B
He	HAND-CARTHAGE-OVERSHUE FINE SANDY LOAMS, 0 TO 3 PERCENT SLOPES	OVERSHUE	SD0609	20	0	1	Ivw1	B1	2	WM	3	86	0.2	5	B/D
HfC	HAND-ETHAN LOAMS, 6 TO 9 PERCENT SLOPES	HAND	SD0048	55	6	9	Ile-1	F	3	Si	6	48	0.28	5	B
HfC	HAND-ETHAN LOAMS, 6 TO 9 PERCENT SLOPES	ETHAN	SD0040	35	6	9	Ive-3	G	8	TU	4L	86	0.28	5	B
HgB	HAND-ETHAN-BONILLA LOAMS, 1 TO 6 PERCENT SLOPES	HAND	SD0048	50	2	6	Ile-1	F	3	Si	6	48	0.28	5	B
HgB	HAND-ETHAN-BONILLA LOAMS, 1 TO 6 PERCENT SLOPES	ETHAN	SD0040	25	2	6	Ile-12	G	8	TU	4L	86	0.28	5	B

musym:c	mapping_unit_name	soil:c	s5id	pct	sl	sh	cap	past	wind	rsid	weg	l	kf	T	hg
HgB	HAND-ETHAN-BONILLA LOAMS, 1 TO 6 PERCENT SLOPES	BONILLA	SD0020	20	1	2	IIc-3	K	1	LOv	6	48	0.24	5	B
HgC	HAND-ETHAN-BONILLA LOAMS, 2 TO 9 PERCENT SLOPES	HAND	SD0048	45	6	9	IIIe-1	F	3	Si	6	48	0.28	5	B
HgC	HAND-ETHAN-BONILLA LOAMS, 2 TO 9 PERCENT SLOPES	ETHAN	SD0040	30	6	9	IVe-3	G	8	TU	4L	86	0.28	5	B
HgC	HAND-ETHAN-BONILLA LOAMS, 2 TO 9 PERCENT SLOPES	BONILLA	SD0275	20	2	6	IIe-3	F	1	Si	6	48	0.24	5	B
HhB	HAND-ETHAN-CARTHAGE COMPLEX, 1 TO 6 PERCENT SLOPES	HAND	SD0048	50	2	6	IIIe-7	F	3	Sy	3	86	0.2	5	B
HhB	HAND-ETHAN-CARTHAGE COMPLEX, 1 TO 6 PERCENT SLOPES	ETHAN	SD0040	25	2	6	IIIe-12	G	8	TU	4L	86	0.28	5	B
HhB	HAND-ETHAN-CARTHAGE COMPLEX, 1 TO 6 PERCENT SLOPES	CARTHAGE	SD0146	20	1	2	IIIe-7	H	5	Sy	3	86	0.2	5	B
HjB	HAND-TALMO COMPLEX, 2 TO 6 PERCENT SLOPES	HAND	SD0048	45	2	6	IIe-1	F	3	Si	6	48	0.28	5	B
HjB	HAND-TALMO COMPLEX, 2 TO 6 PERCENT SLOPES	TALMO	SD0544	35	2	6	Vis-4	NS	10	VSsw	5	56	0.28	2	A
HjC	HAND-TALMO COMPLEX, 6 TO 9 PERCENT SLOPES	HAND	SD0048	45	6	9	IIIe-1	F	3	Si	6	48	0.28	5	B
HjC	HAND-TALMO COMPLEX, 6 TO 9 PERCENT SLOPES	TALMO	SD0544	35	6	9	Vis-4	NS	10	VSsw	5	56	0.28	2	A
Hk	HARMONY-ABERDEEN SILT LOAMS, TILL SUBSTRATUM,	HARMONY	SD0521	55	0	2	IIc1	E	4	Cy	6	48	0.37	5	C
Hk	HARMONY-ABERDEEN SILT LOAMS, TILL SUBSTRATUM,	ABERDEEN	SD0522	35	0	2	IIIe-1	E	4	Cy	6	48	0.37	5	C
Hm	HARMONY-ABERDEEN SILTY CLAY LOAMS, 0 TO 2 PERCENT SLOPES	HARMONY	SD0167	55	0	2	IIc1	E	4	Cy	7	38	0.37	5	C
Hm	HARMONY-ABERDEEN SILTY CLAY LOAMS, 0 TO 2 PERCENT SLOPES	ABERDEEN	SD0144	35	0	2	IIIe-1	E	4	Cy	7	38	0.37	5	C
Hn	HARMONY-BEOTIA SILT LOAMS, 0 TO 2 PERCENT SLOPES	HARMONY	SD0167	55	0	2	IIc1	E	4	Cy	6	48	0.37	5	C
Hn	HARMONY-BEOTIA SILT LOAMS, 0 TO 2 PERCENT SLOPES	BEOTIA	SD0169	35	0	2	IIc-3	K	3	Si	6	48	0.28	5	B
Ho	HARMONY-BEOTIA SILT LOAMS, TILL SUBSTRATUM,	HARMONY	SD0521	55	0	2	IIc1	E	4	Cy	6	48	0.37	5	C
Ho	HARMONY-BEOTIA SILT LOAMS, TILL SUBSTRATUM,	BEOTIA	SD0520	35	0	2	IIc-3	K	3	Si	6	48	0.28	5	B
Hp	HARRIET LOAM, 0 TO 1 PERCENT SLOPES	HARRIET	ND0064	90	0	1	Vis-6	J	10	SL	6	48	0.32	2	D
Hr	HEIL SILT LOAM, 0 TO 1 PERCENT SLOPES	HEIL	ND0059	90	0	1	Vis-6	B2	10	CD	6	48	0.37	2	D
HsA	HENKIN-BLENDON FINE SANDY LOAMS, 0 TO 2 PERCENT SLOPES	HENKIN	SD0029	55	0	2	IIIe-7	H	5	Sy	3	86	0.2	5	B
HsA	HENKIN-BLENDON FINE SANDY LOAMS, 0 TO 2 PERCENT SLOPES	BLENDON	SD0010	35	0	2	IIIe-7	H	5	Sy	3	86	0.2	5	B
HsB	HENKIN-BLENDON FINE SANDY LOAMS, 2 TO 6 PERCENT SLOPES	HENKIN	SD0029	60	2	6	IIIe-8	H	5	Sy	3	86	0.2	5	B
HsB	HENKIN-BLENDON FINE SANDY LOAMS, 2 TO 6 PERCENT SLOPES	BLENDON	SD0010	30	2	6	IIIe-8	H	5	Sy	3	86	0.2	5	B
HIB	HOUEK-ETHAN-PROSPER LOAMS, 1 TO 6 PERCENT SLOPES	HOUEK	SD0171	50	2	6	IIe-2	F	3	Si	6	48	0.24	5	B
HIB	HOUEK-ETHAN-PROSPER LOAMS, 1 TO 6 PERCENT SLOPES	ETHAN	SD0040	25	2	6	IIIe-12	G	8	TU	4L	86	0.28	5	B
HIB	HOUEK-ETHAN-PROSPER LOAMS, 1 TO 6 PERCENT SLOPES	PROSPER	SD0293	20	1	2	IIc-3	K	1	LOv	6	48	0.24	5	B
HIC	HOUEK-ETHAN-PROSPER LOAMS, 2 TO 9 PERCENT SLOPES	HOUEK	SD0171	45	6	9	IIIe-2	F	3	Si	6	48	0.24	5	B
HIC	HOUEK-ETHAN-PROSPER LOAMS, 2 TO 9 PERCENT SLOPES	ETHAN	SD0040	30	6	9	IVe-3	G	8	TU	4L	86	0.28	5	B
HIC	HOUEK-ETHAN-PROSPER LOAMS, 2 TO 9 PERCENT SLOPES	PROSPER	SD0039	20	2	6	IIe-3	F	1	Si	6	48	0.24	5	B
HuA	HOUEK-PROSPER LOAMS, 0 TO 2 PERCENT SLOPES	HOUEK	SD0171	50	0	2	IIc-2	F	3	Si	6	48	0.24	5	B
HuA	HOUEK-PROSPER LOAMS, 0 TO 2 PERCENT SLOPES	PROSPER	SD0293	40	0	2	IIc-3	K	1	LOv	6	48	0.24	5	B
HuB	HOUEK-PROSPER LOAMS, 1 TO 6 PERCENT SLOPES	HOUEK	SD0171	60	2	6	IIe-2	F	3	Si	6	48	0.24	5	B
HuB	HOUEK-PROSPER LOAMS, 1 TO 6 PERCENT SLOPES	PROSPER	SD0293	30	1	2	IIc-3	K	1	LOv	6	48	0.24	5	B
HwA	HOUEK-STICKNEY COMPLEX, 0 TO 2 PERCENT SLOPES	HOUEK	SD0171	55	0	2	IIc-2	F	3	Si	6	48	0.24	5	B
HwA	HOUEK-STICKNEY COMPLEX, 0 TO 2 PERCENT SLOPES	STICKNEY	SD0035	35	0	2	IIIe-1	E	4	Cy	6	48	0.37	5	C
HxA	HOUEK-STICKNEY-TETONKA COMPLEX, 0 TO 2 PERCENT SLOPES	HOUEK	SD0171	45	0	2	IIc-2	F	3	Si	6	48	0.24	5	B
HxA	HOUEK-STICKNEY-TETONKA COMPLEX, 0 TO 2 PERCENT SLOPES	STICKNEY	SD0035	25	0	2	IIIe-1	E	4	Cy	6	48	0.37	5	C
HxA	HOUEK-STICKNEY-TETONKA COMPLEX, 0 TO 2 PERCENT SLOPES	TETONKA	SD0044	20	0	1	IVw-1	B2	10	WM	6	48	0.37	5	D/C
Hy	HOVEN SILT LOAM, 0 TO 1 PERCENT SLOPES	HOVEN	SD0056	90	0	1	Vis-6	B2	10	CD	6	48	0.37	2	D
Ie	IPAGE-ELS-SHUE COMPLEX, 0 TO 6 PERCENT SLOPES	IPAGE	NE0106	45	2	6	VIe-7	H	7	Sy	1	220	0.15	5	A
Ie	IPAGE-ELS-SHUE COMPLEX, 0 TO 6 PERCENT SLOPES	ELS	NE0469	25	0	2	VIe-7	A	2	Sb	1	220	0.15	5	A
Ie	IPAGE-ELS-SHUE COMPLEX, 0 TO 6 PERCENT SLOPES	SHUE	SD0189	20	0	1	IVw1	B1	2	WM	2	134	0.17	5	C

musym:c	mapping_unit_name	soil:c	s5id	pct	sl	sh	cap	past	wind	rsid	weg	l	Kf	T	hg
Jh	JERAULD-HOVEN SILT LOAMS, 0 TO 2 PERCENT SLOPES	JERAULD	SD0057	50	0	2	Vls-1	NS	10	TCp	6	48	0.37	2	D
Jh	JERAULD-HOVEN SILT LOAMS, 0 TO 2 PERCENT SLOPES	HOVEN	SD0056	40	0	1	Vls-6	B2	10	CD	6	48	0.37	2	D
KaA	KRANZBURG-BROOKINGS SILT LOAMS, 0 TO 2 PERCENT SLOPES	KRANZBURG	SD0161	50	0	2	llc-2	F	3	Si	6	48	0.28	5	B
KaA	KRANZBURG-BROOKINGS SILT LOAMS, 0 TO 2 PERCENT SLOPES	BROOKINGS	SD0160	40	0	2	llc-3	K	1	LOv	6	48	0.28	5	B
KbB	KRANZBURG-BROOKINGS-BUSE COMPLEX, 1 TO 6 PERCENT SLOPES	KRANZBURG	SD0161	40	2	6	lle-1	F	3	Si	6	48	0.28	5	B
KbB	KRANZBURG-BROOKINGS-BUSE COMPLEX, 1 TO 6 PERCENT SLOPES	BROOKINGS	SD0160	30	1	2	llc-3	K	1	LOv	6	48	0.28	5	B
KbB	KRANZBURG-BROOKINGS-BUSE COMPLEX, 1 TO 6 PERCENT SLOPES	BUSE	MN0317	25	3	6	lle-12	G	8	TU	4L	86	0.28	5	B
KcA	KRANZBURG-CRESBARD SILT LOAMS, 0 TO 2 PERCENT SLOPES	KRANZBURG	SD0161	55	0	2	llc-2	F	3	Si	6	48	0.28	5	B
KcA	KRANZBURG-CRESBARD SILT LOAMS, 0 TO 2 PERCENT SLOPES	CRESBARD	SD0001	30	0	2	llls-1	E	4	Cy	6	48	0.37	5	C
KIA	KRANZBURG-CRESBARD-TONKA SILT LOAMS, 0 TO 2 PERCENT SLOPES	KRANZBURG	SD0161	45	0	2	llc-2	F	3	Si	6	48	0.28	5	B
KIA	KRANZBURG-CRESBARD-TONKA SILT LOAMS, 0 TO 2 PERCENT SLOPES	CRESBARD	SD0001	25	0	2	llls-1	E	4	Cy	6	48	0.37	5	C
KIA	KRANZBURG-CRESBARD-TONKA SILT LOAMS, 0 TO 2 PERCENT SLOPES	TONKA	ND0229	20	0	1	lvw-1	B2	10	WM	6	48	0.37	5	D/C
KzB	KRANZBURG-ZELL-AASTAD COMPLEX, 1 TO 6 PERCENT SLOPES	KRANZBURG	SD0161	40	2	6	lle-1	F	3	Si	6	48	0.28	5	B
KzB	KRANZBURG-ZELL-AASTAD COMPLEX, 1 TO 6 PERCENT SLOPES	ZELL	SD0196	30	2	6	lle12	G	8	TU	4L	86	0.32	5	B
KzB	KRANZBURG-ZELL-AASTAD COMPLEX, 1 TO 6 PERCENT SLOPES	AASTAD	MN0322	20	1	2	llc-3	K	1	LOv	6	48	0.24	5	B
La	LA PRAIRIE LOAM, 0 TO 2 PERCENT SLOPES	LA PRAIRIE	ND0184	85	0	2	llc-1	K	1	Si	6	48	0.24	5	B
Lc	LA PRAIRIE-HOLMQUIST LOAMS, CHanneled	LA PRAIRIE	ND0109	50	0	2	Vlw-1	NS	1	LOv	6	48	0.24	5	B
Lc	LA PRAIRIE-HOLMQUIST LOAMS, CHanneled	HOLMQUIST	SD0492	40	0	2	Vlw-1	NS	10	SSb	4L	86	0.24	5	D
Ld	LADELLE SILT LOAM, 0 TO 2 PERCENT SLOPES	LADELLE	SD0283	90	0	2	llc-1	K	1	Si	6	48	0.28	5	B
Le	LADELLE SILT LOAM, CHanneled	LADELLE	SD0145	85	0	2	Vlw-1	NS	1	LOv	6	48	0.28	5	B
Lk	LAMO SILTY CLAY LOAM, 0 TO 1 PERCENT SLOPES	LAMO	NE0051	90	0	1	llw-2	A	2K	Sb	4L	86	0.32	5	C
Lm	LAMOURE SILTY CLAY LOAM, 0 TO 1 PERCENT SLOPES	LAMOURE	SD0354	85	0	1	lllw-3	A	2K	Sb	4L	86	0.28	5	C
Ln	LAWET LOAM, 0 TO 2 PERCENT SLOPES	LAWET	NE0456	85	0	2	lvw-3	B1	2K	Sb	4L	86	0.24	5	D/B
Lo	LAWET LOAM, WET, 0 TO 1 PERCENT SLOPES	LAWET	NE0451	90	0	1	Vw-1	B1	10	WI	4L	86	0.24	5	D/B
Lp	LAWET-DAVISON LOAMS, 0 TO 2 PERCENT SLOPES	LAWET	NE0456	60	0	2	lvw-3	B1	2K	Sb	4L	86	0.24	5	D/B
Lp	LAWET-DAVISON LOAMS, 0 TO 2 PERCENT SLOPES	DAVISON	SD0036	30	0	2	lle-4	F	1K	LSb	4L	86	0.28	5	B
LrA	LEHR-BOWDLE LOAMS, 0 TO 3 PERCENT SLOPES	LEHR	ND0124	55	0	3	lvs-1	D2	6G	SwG	5	56	0.28	3	B
LrA	LEHR-BOWDLE LOAMS, 0 TO 3 PERCENT SLOPES	BOWDLE	SD0002	35	0	2	llls-2	D1	6G	Si	6	48	0.24	4	B
LrB	LEHR-BOWDLE LOAMS, 3 TO 6 PERCENT SLOPES	LEHR	ND0124	60	3	6	lve-6	D2	6G	SwG	5	56	0.28	3	B
LrB	LEHR-BOWDLE LOAMS, 3 TO 6 PERCENT SLOPES	BOWDLE	SD0002	30	2	6	llle-6	D1	6G	Si	6	48	0.24	4	B
Ls	LOWE LOAM, 0 TO 1 PERCENT SLOPES	LOWE	SD0455	85	0	1	lvw-3	A	10	Sb	4L	86	0.24	5	D/B
Lt	LUDDEN SILTY CLAY, 0 TO 1 PERCENT SLOPES	LUDDEN	ND0032	85	0	1	lvw-1	B1	10	WI	4	86	0.28	5	D
Lu	LUDDEN SILTY CLAY, PONDED	LUDDEN	ND0333	90	0	1	Vllw-1	NS	10	NA	4	86	0.28	5	D
Lw	LUDDEN SILTY CLAY, WET, 0 TO 1 PERCENT SLOPES	LUDDEN	ND0447	85	0	1	Vw-1	B1	10	WI	4	86	0.28	5	D
MaC	MADDOCK-EGELAND SANDY LOAMS, 6 TO 9 PERCENT SLOPES	MADDOCK	ND0192	50	6	9	lve-8	H	5	Sy	3	86	0.2	5	A
MaC	MADDOCK-EGELAND SANDY LOAMS, 6 TO 9 PERCENT SLOPES	EGELAND	SD0140	35	6	9	lve-8	H	5	Sy	3	86	0.2	5	B
MdA	MAX-ARNEGARD LOAMS, 0 TO 3 PERCENT SLOPES	MAX	ND0056	50	0	3	llc-2	F	3	Si	6	48	0.28	5	B
MdA	MAX-ARNEGARD LOAMS, 0 TO 3 PERCENT SLOPES	ARNEGARD	ND0186	40	0	2	llc-3	K	1	LOv	6	48	0.24	5	B
MdB	MAX-ARNEGARD LOAMS, 1 TO 6 PERCENT SLOPES	MAX	ND0056	60	3	6	lle-2	F	3	Si	6	48	0.28	5	B
MdB	MAX-ARNEGARD LOAMS, 1 TO 6 PERCENT SLOPES	ARNEGARD	ND0186	30	1	2	llc-3	K	1	LOv	6	48	0.24	5	B
MgB	MAX-ARNEGARD-ZAHL LOAMS, 1 TO 6 PERCENT SLOPES	MAX	ND0056	45	3	6	lle-2	F	3	Si	6	48	0.28	5	B
MgB	MAX-ARNEGARD-ZAHL LOAMS, 1 TO 6 PERCENT SLOPES	ARNEGARD	ND0186	30	1	2	llc-3	K	1	LOv	6	48	0.24	5	B
MgB	MAX-ARNEGARD-ZAHL LOAMS, 1 TO 6 PERCENT SLOPES	ZAHL	ND0048	20	3	6	llle-12	G	8	TU	4L	86	0.28	5	B
MnB	MAX-NIOBELL-NOONAN LOAMS, 2 TO 6 PERCENT SLOPES	MAX	ND0056	40	3	6	lle-2	F	3	Si	6	48	0.28	5	B

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MnB	MAX-NIOBELL-NOONAN LOAMS, 2 TO 6 PERCENT SLOPES	NIOBELL	ND0041	30	2	6	IIIe-15	E	4	Cy	6	48	0.32	5	C
MnB	MAX-NIOBELL-NOONAN LOAMS, 2 TO 6 PERCENT SLOPES	NOONAN	ND0045	20	2	6	IVs-2	C	9C	Cp	6	48	0.32	2	D
MxC	MAX-ZAHL-ARNEGARD LOAMS, 2 TO 9 PERCENT SLOPES	MAX	ND0056	45	6	9	IIIe-2	F	3	Si	6	48	0.28	5	B
M-W	MISCELLANEOUS WATER	MISCELLANEOUS WATER		100			VIIInw1	NS	10						
MxC	MAX-ZAHL-ARNEGARD LOAMS, 2 TO 9 PERCENT SLOPES	ZAHL	ND0048	30	6	9	IVe-3	G	8	TU	4L	86	0.28	5	B
MxC	MAX-ZAHL-ARNEGARD LOAMS, 2 TO 9 PERCENT SLOPES	ARNEGARD	ND0051	20	2	6	IIe-3	F	1	Si	6	48	0.24	5	B
My	MIRANDA-HEIL COMPLEX, 0 TO 2 PERCENT SLOPES	MIRANDA	SD0580	50	0	2	VIIs-1	NS	10	TCp	6	48	0.32	2	D
My	MIRANDA-HEIL COMPLEX, 0 TO 2 PERCENT SLOPES	HEIL	ND0059	40	0	2	VIIs-6	B2	10	CD	6	48	0.37	2	D
Mz	MORITZ-LOWE LOAMS, 0 TO 2 PERCENT SLOPES	MORITZ	SD0454	55	0	2	IIe-4	K	1K	LSb	4L	86	0.24	5	C
Mz	MORITZ-LOWE LOAMS, 0 TO 2 PERCENT SLOPES	LOWE	SD0455	35	0	1	IVw-3	A	10	Sb	4L	86	0.24	5	D/B
Na	NAHON-ABERDEEN-EXLINE SILT LOAMS, 0 TO 2 PERCENT SLOPES	NAHON	SD0055	45	0	2	IVs-2	C	9C	Cp	6	48	0.37	2	D
Na	NAHON-ABERDEEN-EXLINE SILT LOAMS, 0 TO 2 PERCENT SLOPES	ABERDEEN	SD0144	30	0	2	IIIs-1	E	4	Cy	6	48	0.37	5	C
Na	NAHON-ABERDEEN-EXLINE SILT LOAMS, 0 TO 2 PERCENT SLOPES	EXLINE	SD0214	20	0	2	VIIs-1	NS	10	TCp	6	48	0.37	2	D
Nb	NAHON-ABERDEEN-EXLINE SILT LOAMS, TILL SUBSTRATUM,	NAHON	SD0523	45	0	2	IVs-2	C	9C	Cp	6	48	0.37	2	D
Nb	NAHON-ABERDEEN-EXLINE SILT LOAMS, TILL SUBSTRATUM,	ABERDEEN	SD0522	30	0	2	IIIs-1	E	4	Cy	6	48	0.37	5	C
Nb	NAHON-ABERDEEN-EXLINE SILT LOAMS, TILL SUBSTRATUM,	EXLINE	SD0524	20	0	2	VIIs-1	NS	10	TCp	6	48	0.37	2	D
Nc	NIOBELL-NOONAN LOAMS, 0 TO 2 PERCENT SLOPES	NIOBELL	ND0041	60	0	2	IIIs-1	E	4	Cy	6	48	0.32	5	C
Nc	NIOBELL-NOONAN LOAMS, 0 TO 2 PERCENT SLOPES	NOONAN	ND0045	30	0	2	IVs-2	C	9C	Cp	6	48	0.32	2	D
Nd	NIOBELL-NOONAN-HEIL COMPLEX, 0 TO 2 PERCENT SLOPES	NIOBELL	ND0041	40	0	2	IIIs-1	E	4	Cy	6	48	0.32	5	C
Nd	NIOBELL-NOONAN-HEIL COMPLEX, 0 TO 2 PERCENT SLOPES	NOONAN	ND0045	30	0	2	IVs-2	C	9C	Cp	6	48	0.32	2	D
Nd	NIOBELL-NOONAN-HEIL COMPLEX, 0 TO 2 PERCENT SLOPES	HEIL	ND0059	20	0	1	VIIs-6	B2	10	CD	6	48	0.37	2	D
NeA	NIOBELL-NOONAN-MAX LOAMS, 0 TO 3 PERCENT SLOPES	NIOBELL	ND0041	40	0	3	IIIs-1	E	4	Cy	6	48	0.32	5	C
NeA	NIOBELL-NOONAN-MAX LOAMS, 0 TO 3 PERCENT SLOPES	NOONAN	ND0045	30	0	3	IVs-2	C	9C	Cp	6	48	0.32	2	D
NeA	NIOBELL-NOONAN-MAX LOAMS, 0 TO 3 PERCENT SLOPES	MAX	ND0056	20	2	3	IIc-2	F	3	Si	6	48	0.28	5	B
Nm	NOONAN-MIRANDA LOAMS, 0 TO 2 PERCENT SLOPES	NOONAN	ND0045	55	0	2	IVs-2	C	9C	Cp	6	48	0.32	2	D
Nm	NOONAN-MIRANDA LOAMS, 0 TO 2 PERCENT SLOPES	MIRANDA	SD0005	35	0	2	VIIs-1	NS	10	TCp	6	48	0.32	2	D
Nr	NORTHVILLE-FARMSWORTH SILT LOAMS, 0 TO 2 PERCENT SLOPES	NORTHVILLE	SD0538	60	0	2	IIIs-1	E	4	Cy	6	48	0.37	5	C
Nr	NORTHVILLE-FARMSWORTH SILT LOAMS, 0 TO 2 PERCENT SLOPES	FARMSWORTH	SD0255	30	0	2	IVs-2	C	9W	Cp	6	48	0.32	2	D
Nv	NORTHVILLE-FARMSWORTH-HOVEN SILT LOAMS, 0 TO 2 PERCENT SLOPES	NORTHVILLE	SD0538	40	0	2	IIIs-1	E	4	Cy	6	48	0.37	5	C
Nv	NORTHVILLE-FARMSWORTH-HOVEN SILT LOAMS, 0 TO 2 PERCENT SLOPES	FARMSWORTH	SD0255	30	0	2	IVs-2	C	9W	Cp	6	48	0.32	2	D
Nv	NORTHVILLE-FARMSWORTH-HOVEN SILT LOAMS, 0 TO 2 PERCENT SLOPES	HOVEN	SD0056	20	0	1	VIIs-6	B2	10	CD	6	48	0.37	2	D
Ov	OVERSHUE FINE SANDY LOAM, 0 TO 1 PERCENT SLOPES	OVERSHUE	SD0609	90	0	1	IVw1	B1	2	WM	3	86	0.2	5	B/D
Pa	PARNELL SILTY CLAY LOAM, 0 TO 1 PERCENT SLOPES	PARNELL	MN0035	90	0	1	Vw-4	B2	10	SM	7	38	0.37	5	D/C
Pc	PARSHALL LOAMS, 0 TO 3 PERCENT SLOPES	PARSHALL	ND0046	85	0	3	IIIs-2	H	5	Sy	5	56	0.28	5	B
PeA	PEEVER CLAY LOAM, 0 TO 2 PERCENT SLOPES	PEEVER	SD0151	85	0	2	IIIs-1	E	4	Cy	6	48	0.32	5	C
PgB	PEEVER-BUSE CLAY LOAMS, 1 TO 4 PERCENT SLOPES	PEEVER	SD0151	60	2	4	IIIe-3	E	4	Cy	6	48	0.32	5	C
PgB	PEEVER-BUSE CLAY LOAMS, 1 TO 4 PERCENT SLOPES	BUSE	MN0317	30	3	4	IIIe-12	G	8	TU	4L	86	0.28	5	B
PoA	PEEVER-CAVOUR COMPLEX, 0 TO 2 PERCENT SLOPES	PEEVER	SD0151	60	0	2	IIIs-1	E	4	Cy	6	48	0.32	5	C
PoA	PEEVER-CAVOUR COMPLEX, 0 TO 2 PERCENT SLOPES	CAVOUR	SD0150	30	0	2	IVs-2	C	9C	Cp	6	48	0.32	2	D
Pp	PITS, SAND, AND GRAVEL	ORTHENTS, GRAVELLY	SD3003	90	0	60	VIIIIs-2	NS	10	VSw	5	56	0.2	3	A
Pr	PLAYMOOR SILTY CLAY LOAM, 0 TO 1 PERCENT SLOPES	PLAYMOOR	SD0170	85	0	1	IVw-4	J	10	SSb	4L	86	0.28	5	C/D
Py	PLAYMOOR-LAMOURE SILTY CLAY LOAMS, CHanneled	PLAYMOOR	SD0170	50	0	2	VIIw-1	NS	10	SSb	4L	86	0.28	5	C/D
Py	PLAYMOOR-LAMOURE SILTY CLAY LOAMS, CHanneled	LAMOURE	SD0176	40	0	2	VIIw-1	NS	2K	Sb	4L	86	0.28	5	C
Ra	RANSLO SILTY CLAY LOAM, 0 TO 1 PERCENT SLOPES	RANSLO	SD0007	85	0	1	IVs-2	C	9W	Sb	7	38	0.37	2	D

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Re	RANSLO-HARRIET LOAMS, 0 TO 2 PERCENT SLOPES	RANSLO	SD0007	50	0	2	IVs-2	C	9W	Sb	6	48	0.32	2	D
Re	RANSLO-HARRIET LOAMS, 0 TO 2 PERCENT SLOPES	HARRIET	ND0064	40	0	1	VIIs-6	J	10	SL	6	48	0.32	2	D
RfA	RENSHAW-FORDVILLE LOAMS, 0 TO 2 PERCENT SLOPES	RENSHAW	SD0142	55	0	2	IVs-1	D2	6G	SwG	6	48	0.28	3	B
RfA	RENSHAW-FORDVILLE LOAMS, 0 TO 2 PERCENT SLOPES	FORDVILLE	SD0178	35	0	2	IIIs-2	D1	6G	Si	6	48	0.24	4	B
RfB	RENSHAW-FORDVILLE LOAMS, 2 TO 6 PERCENT SLOPES	RENSHAW	SD0142	60	2	6	IVe-6	D2	6G	SwG	6	48	0.28	3	B
RfB	RENSHAW-FORDVILLE LOAMS, 2 TO 6 PERCENT SLOPES	FORDVILLE	SD0178	30	2	6	IIIs-6	D1	6G	Si	6	48	0.24	4	B
So	SOUTHAM SILTY CLAY LOAM, 0 TO 1 PERCENT SLOPES	SOUTHAM	ND0248	90	0	1	VIIIw-1	NS	10	NA	4L	86	0.37	5	D
St	STICKNEY-DUDLEY SILT LOAMS, 0 TO 2 PERCENT SLOPES	STICKNEY	SD0035	60	0	2	IIIs-1	E	4	Cy	6	48	0.37	5	C
St	STICKNEY-DUDLEY SILT LOAMS, 0 TO 2 PERCENT SLOPES	DUDLEY	SD0034	30	0	2	IVs-2	C	9C	Cp	6	48	0.37	2	D
Su	STICKNEY-DUDLEY-HOVEN SILT LOAMS, 0 TO 2 PERCENT SLOPES	STICKNEY	SD0035	40	0	2	IIIs-1	E	4	Cy	6	48	0.37	5	C
Su	STICKNEY-DUDLEY-HOVEN SILT LOAMS, 0 TO 2 PERCENT SLOPES	DUDLEY	SD0034	30	0	2	IVs-2	C	9C	Cp	6	48	0.37	2	D
Su	STICKNEY-DUDLEY-HOVEN SILT LOAMS, 0 TO 2 PERCENT SLOPES	HOVEN	SD0056	20	0	1	IVs-6	B2	10	CD	6	48	0.37	2	D
Sw	STRAW LOAM, CHanneled	STRAW	MT1687	85	0	2	VIw-1	NS	1	LOv	5	56	0.28	5	B
Sx	STRAW LOAM, 0 TO 2 PERCENT SLOPES	STRAW	MT1687	90	0	2	IIc-1	K	1	LOv	5	56	0.28	5	B
TbE	TALMO-ETHAN COMPLEX, 9 TO 40 PERCENT SLOPES, VERY STONY	TALMO	SD0355	45	9	40	VIIIs-6	NS	10	VSw	8	na	0.28	2	A
TbE	TALMO-ETHAN COMPLEX, 9 TO 40 PERCENT SLOPES, VERY STONY	ETHAN	SD0267	35	9	40	VIIIs-6	NS	10	TU	8	na	0.28	5	B
Te	TETONKA SILT LOAM, 0 TO 1 PERCENT SLOPES	TETONKA	SD0044	90	0	1	IVw-1	B2	10	WM	6	48	0.37	5	D/C
Tk	TOKO FINE SANDY LOAM, 0 TO 1 PERCENT SLOPES	TOKO	SD0604	90	0	1	IVw-2	B2	10	WM	3	86	0.24	5	C
Tm	TOKO FINE SANDY LOAM, WET, 0 TO 1 PERCENT SLOPES	TOKO	SD0615	90	0	1	Vw-1	B2	10	SM	3	86	0.24	5	C
Tn	TONKA SILT LOAM, 0 TO 1 PERCENT SLOPES	TONKA	ND0229	90	0	1	IVw-1	B2	10	WM	6	48	0.37	5	D/C
To	TONKA-RIMLAP SILT LOAMS, 0 TO 1 PERCENT SLOPES	TONKA	ND0026	60	0	1	IVw-1	B2	10	WM	6	48	0.37	5	D/C
To	TONKA-RIMLAP SILT LOAMS, 0 TO 1 PERCENT SLOPES	RIMLAP	SD0613	30	0	1	IVw-1	B2	10	WM	6	48	0.28	5	C/D
Us	UDORTHENTS, SILTY, 0 TO 6 PERCENT SLOPES	ORTHENTS, SILTY	SD3004	90	0	6	IVe-3	G	8	TU	4L	86	0.32	5	B
Va	VALLERS-HAMERLY LOAMS, 0 TO 2 PERCENT SLOPES	VALLERS	MN0055	60	0	2	IVw-3	A	10	Sb	4L	86	0.28	5	C
Va	VALLERS-HAMERLY LOAMS, 0 TO 2 PERCENT SLOPES	HAMERLY	ND0033	30	0	2	IIe-4	A	1K	LSb	4L	86	0.24	5	C
VgA	VANG LOAM, 0 TO 2 PERCENT SLOPES	VANG	ND0166	85	0	2	IIIs2	D1	6G	Si	6	48	0.24	4	B
W	WATER	WATER		100			VIIIw-1	NS	10						
WaA	WILLIAMS-BOWBELLS LOAMS, 0 TO 3 PERCENT SLOPES	WILLIAMS	ND0042	50	0	3	IIc-2	F	3	Si	6	48	0.28	5	B
WaA	WILLIAMS-BOWBELLS LOAMS, 0 TO 3 PERCENT SLOPES	BOWBELLS	ND0208	40	0	3	IIc-3	K	1	LOv	6	48	0.24	5	B
WaB	WILLIAMS-BOWBELLS LOAMS, 1 TO 6 PERCENT SLOPES	WILLIAMS	ND0042	60	3	6	IIe-2	F	3	Si	6	48	0.28	5	B
WaB	WILLIAMS-BOWBELLS LOAMS, 1 TO 6 PERCENT SLOPES	BOWBELLS	ND0208	30	1	3	IIc-3	K	1	LOv	6	48	0.24	5	B
WbA	WILLIAMS-BOWBELLS-TONKA COMPLEX, 0 TO 3 PERCENT SLOPES	WILLIAMS	ND0042	45	0	3	IIc-2	F	3	Si	6	48	0.28	5	B
WbA	WILLIAMS-BOWBELLS-TONKA COMPLEX, 0 TO 3 PERCENT SLOPES	BOWBELLS	ND0208	25	0	3	IIc-3	K	1	LOv	6	48	0.24	5	B
WbA	WILLIAMS-BOWBELLS-TONKA COMPLEX, 0 TO 3 PERCENT SLOPES	TONKA	ND0026	20	0	1	IVw-1	B2	10	WM	6	48	0.37	5	D/C
WbB	WILLIAMS-BOWBELLS-TONKA COMPLEX, 0 TO 6 PERCENT SLOPES	WILLIAMS	ND0042	50	3	6	IIe-2	F	3	Si	6	48	0.28	5	B
WbB	WILLIAMS-BOWBELLS-TONKA COMPLEX, 0 TO 6 PERCENT SLOPES	BOWBELLS	ND0208	25	1	3	IIc-3	K	1	LOv	6	48	0.24	5	B
WbB	WILLIAMS-BOWBELLS-TONKA COMPLEX, 0 TO 6 PERCENT SLOPES	TONKA	ND0026	20	0	1	IVw-1	B2	10	WM	6	48	0.37	5	D/C
WcA	WILLIAMS-NIOBELL LOAMS, 0 TO 3 PERCENT SLOPES	WILLIAMS	ND0042	55	0	3	IIc-2	F	3	Si	6	48	0.28	5	B
WcA	WILLIAMS-NIOBELL LOAMS, 0 TO 3 PERCENT SLOPES	NIOBELL	ND0041	30	0	2	IIIs-1	E	4	Cy	6	48	0.32	5	C
WcB	WILLIAMS-NIOBELL LOAMS, 3 TO 6 PERCENT SLOPES	WILLIAMS	ND0042	60	3	6	IIe-2	F	3	Si	6	48	0.28	5	B
WcB	WILLIAMS-NIOBELL LOAMS, 3 TO 6 PERCENT SLOPES	NIOBELL	ND0041	30	2	6	IIIs-15	E	4	Cy	6	48	0.32	5	C
WdA	WILLIAMS-NIOBELL-TONKA COMPLEX, 0 TO 3 PERCENT SLOPES	WILLIAMS	ND0042	45	0	3	IIc-2	F	3	Si	6	48	0.28	5	B
WdA	WILLIAMS-NIOBELL-TONKA COMPLEX, 0 TO 3 PERCENT SLOPES	NIOBELL	ND0041	25	0	2	IIIs-1	E	4	Cy	6	48	0.32	5	

musym:c mapping_unit_name

soil:c

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pct

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WdA WILLIAMS-NIOBELL-TONKA COMPLEX, 0 TO 3 PERCENT SLOPES
 WhD WILLIAMS-VIDA LOAMS, 6 TO 15 PERCENT SLOPES
 WhD WILLIAMS-VIDA LOAMS, 6 TO 15 PERCENT SLOPES
 WmB WILLIAMS-ZAHL-BOWBELLS LOAMS, 1 TO 6 PERCENT SLOPES
 WmB WILLIAMS-ZAHL-BOWBELLS LOAMS, 1 TO 6 PERCENT SLOPES
 WmB WILLIAMS-ZAHL-BOWBELLS LOAMS, 1 TO 6 PERCENT SLOPES
 WmC WILLIAMS-ZAHL-BOWBELLS LOAMS, 2 TO 9 PERCENT SLOPES
 WmC WILLIAMS-ZAHL-BOWBELLS LOAMS, 2 TO 9 PERCENT SLOPES
 WmC WILLIAMS-ZAHL-BOWBELLS LOAMS, 2 TO 9 PERCENT SLOPES
 Wn WINSHIP-TONKA SILT LOAMS, 0 TO 1 PERCENT SLOPES
 Wn WINSHIP-TONKA SILT LOAMS, 0 TO 1 PERCENT SLOPES
 Wo WINSHIP-TONKA SILT LOAMS, TILL SUBSTRATUM,
 Wo WINSHIP-TONKA SILT LOAMS, TILL SUBSTRATUM,
 Ws WOONSOCKET-WHITELAKE FINE SANDY LOAMS, 0 TO 2 PERCENT SLOPES
 Ws WOONSOCKET-WHITELAKE FINE SANDY LOAMS, 0 TO 2 PERCENT SLOPES
 Wt WORTHING SILTY CLAY LOAM, 0 TO 1 PERCENT SLOPES
 Ww WORTHING SILTY CLAY LOAM, PONDED
 ZaE ZAHILL LOAM, 15 TO 40 PERCENT SLOPES
 ZbC ZAHL-MAX LOAMS, 6 TO 9 PERCENT SLOPES
 ZbC ZAHL-MAX LOAMS, 6 TO 9 PERCENT SLOPES
 ZbD ZAHL-MAX LOAMS, 9 TO 20 PERCENT SLOPES
 ZbD ZAHL-MAX LOAMS, 9 TO 20 PERCENT SLOPES
 ZgD ZELL-GREAT BEND SILT LOAMS, 6 TO 25 PERCENT SLOPES
 ZgD ZELL-GREAT BEND SILT LOAMS, 6 TO 25 PERCENT SLOPES

TONKA
 WILLIAMS
 VIDA
 WILLIAMS
 ZAHL
 BOWBELLS
 WILLIAMS
 ZAHL
 BOWBELLS
 WINSHIP
 TONKA
 WINSHIP
 TONKA
 WOONSOCKET
 WHITELAKE
 WORTHING
 WORTHING
 ZAHILL
 ZAHL
 MAX
 ZAHL
 MAX
 ZELL
 GREAT BEND

ND0026	20	0	1	IVw-1	B2	10	WM	6	48	0.37	5	D/C
ND0042	50	6	9	IIIe-2	F	3	Si	6	48	0.28	5	B
MT1133	40	9	15	IVe-1	F	3	Si	6	48	0.28	5	B
ND0042	50	3	6	IIe-2	F	3	Si	6	48	0.28	5	B
ND0048	25	3	6	IIIe-12	G	8	TU	4L	86	0.28	5	B
ND0208	20	1	3	IIc-3	K	1	LOv	6	48	0.24	5	B
ND0042	45	6	9	IIIe-2	F	3	Si	6	48	0.28	5	B
ND0048	30	6	9	IVe-3	G	8	TU	4L	86	0.28	5	B
ND0027	20	3	6	IIe-3	F	1	Si	6	48	0.24	5	B
SD0369	60	0	1	IIw-1	A	1	LOv	6	48	0.37	5	C
ND0229	30	0	1	IVw-1	B2	10	WM	6	48	0.37	5	D/C
SD0537	60	0	1	IIw-1	A	1	LOv	6	48	0.37	5	C
ND0229	30	0	1	IVw-1	B2	10	WM	6	48	0.37	5	D/C
SD0256	50	0	2	IIIe-7	H	5	Cy	3	86	0.2	5	B
SD0120	35	0	2	IVe-13	H	9L	Cp	3	86	0.24	2	B
SD0046	90	0	1	Vw-4	B2	10	SM	4	86	0.37	5	D
SD0266	90	0	1	VIIIw-1	NS	10	NA	8	na	0.37	5	D
MT1134	85	15	40	VIIe-3	NS	10	TU	4L	86	0.32	5	C
ND0048	50	6	9	IVe-3	G	8	TU	4L	86	0.28	5	B
ND0056	40	6	9	IIIe-2	F	3	Si	6	48	0.28	5	B
ND0048	55	15	20	VIIe-3	NS	10	TU	4L	86	0.28	5	B
ND0056	35	9	15	IVe-1	F	3	Si	6	48	0.28	5	B
SD0196	55	9	25	VIe-3	NS	10	TU	4L	86	0.32	5	B
SD0154	35	6	9	IIIe-1	F	3	Si	6	48	0.32	5	B

1/13/2003

Water Rights Program
Joe Foss Building
523 E. Capitol Pierre, SD.
57501-3181

RECEIVED
JAN 14 2003
WATER RIGHTS
PROGRAM

Hi Eric,

Description of amendments to water rights 4586.3, 970-3, and 987-3. These wells are within 160 rods of the contested part circle pivot, and new diversion point in the center of the NE. 1/4 of sec. 29-117-61. (map is attached for reference).

Being the landowner where these three water permits reside. I would like to propose the following amendments for your approval:

The Transfer of 100 irrigated acres allotted under water permit 4586.3 to permit # 970-3. For the use on the contested part circle in NE 1/4 of sec. 29-117-61.

We have reduced the water volume pumped from the well located in the center of the NW 1/4 of sec. 29-117-61 under permit # 970-3 from a certifiable 1136 gpm. Down to a certifiable 800 gpm. by replacing the 75 hp. Motor and pump with a 40 hp. Submersible turbine pump. The 75hp. Unit had been in operation and use since June 1963 until the new pivot and pump were installed last spring. A copy of the original purchase receipt and specifications of the original pump are included as exhibit "A".

A copy of the specifications of the new 40 hp. pump is included as exhibit "B". It is my objective to transfer the conserved 336 gpm. To the new diversion point under the same permit 970-3 .

From permit #987-3 which is allotted 990 gpm. We have reduced the water volume pumped from the well, located 300 feet east of the center of the SW. 1/4 of sec. 20-117-61 by 190 gpm. This was achieved by the purchase of a new pivot system with gpm. pressure restriction devices located on each sprinkler head. A copy of supporting data on this procedure, installed this spring is included as exhibit "C". The units are Valmont but the colored Nelson sheet in exhibit "C" describes their function. It is my objective to transfer this 190 gpm. To the new diversion point in the center of the NE. 1/4 of sec. 29-117-61

William F. St. Clair
37644 18th Street
Tulare, SD 57456-7007
605-596-4262

Page 1

Exhibit "D" is a copy of the original pump order and bowl chart of the pump & 75hp motor in use from its inception until today, on permit #987-3, that certifies this unit produced 1000 gpm. to a center pivot system at 81 psi., (a system that did not have the regulators on it.)

By combining the transferred acres, the 336 gpm. and the 190 gpm. For a total of 526 gpm. I am hoping to legitimize our mistaken assumption that we had a valid usable permit for the previously completely developed project in the NE. 1/4 of 29-117-61.

My Regards



Bill St. Clair
37644 184th ST.
Tulare, SD. 57476
605-596-4262

William F. St. Clair
37644 184th Street
Tulare, SD 57476-7607
605-596-4262

Water Rights Program - DENR
Conversation File Documentation

NAME OF PERSON OR FILE: Water Permit Application No. 6382-3, William St. Clair

ADDRESS: COUNTY: Spink

DATE: January 17, 2003 TELEPHONE: 596-4262 & 450-0080 (cell)

RE: discussion of application

I called Mr. St. Clair to inform him that the Chief Engineer Garland Erbele, Jim Goodman and I had an opportunity to sit down and discuss this application. We have reservations about the application that likely will result in a non-favorable recommendation to the Board. However, he will have an opportunity to bring the application before the Board for their consideration.

I explained our primary concerns are that this transfer of diversion authority will result in the use of more water than historically used. First, by the fact that the Board at their December meeting quantified Right No. 970-3 to be for 132 acre with a diversion rate of 1.88 cfs (850 gpm) which is the statutory limit. Mr. St. Clair is claiming historic use of 1,136 gpm so by changing the pump and pivot to 800 gpm he is saving 336 gpm. Under the Board quantification, he is only reducing the use by 50 gpm (850 gpm minus 800 gpm).

I also explained that the information he provided doesn't actually quantify savings of water by conservation. Certainly conservation is admirable and his replacement of the systems authorized by Nos. 970-3 and 987-3 probably does save some quantity of water but it has not been quantified. Just be reducing the diversion rate does not necessarily mean you are using less water.

Mr. St. Clair asked that we proceed with his application and he will plead his case before the Board.

COMMENTS:

NAME:



REPORT ON WATER PERMIT APPLICATION NO. 6382-3
For William St. Clair
February 3, 2003

Application No. 6392-3 proposes to transfer acres held under Water Right No. 4586-3 and diversion authority from Water Right Nos. 970-3 and 987-3 to irrigate 100 acres located in the NE $\frac{1}{4}$ of section 29, T117N R61W in Spink County.

Water Right No. 4586-3 appropriates 1.7 cfs from one well located in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ of section 28 to irrigate 364 acres located in the N $\frac{1}{2}$ of section 28 and the SW $\frac{1}{4}$ of section 21. This application would move the location of 100 acres authorized by No. 4586-3 to the NE $\frac{1}{4}$ of section 29. State Law (SDCL 46-5-34) allows an irrigation water right to be severed from one parcel of land and simultaneously transferred to another parcel if it is impractical to use all or any part of the water beneficially or economically for irrigation on the current land. Mr. St. Clair does not intend to change any diversion rates authorized by Water Right No. 4586-3.

The applicant also requests to transfer a portion of the diversion authority from Water Right Nos. 970-3 and 987-3 to provide water for irrigation utilizing the well located near the center of the NE $\frac{1}{4}$ of section 29. Water Right No. 970-3 was quantified for 1.88 cfs from a well in the NW $\frac{1}{4}$ of section 29 for irrigation of 132 acres also located in the NW $\frac{1}{4}$ of section 29, T117N R61W. Water Right No. 987-3 is on record as appropriating 2.2 cfs from a well (same well as authorized by 970-3) to irrigate 154 acres located in the SW $\frac{1}{4}$ of section 20, T117N R61W. The applicant claims that due to recent replacement of pumps and irrigation systems, he has conserved 1.17 cfs (526 gpm) which can now be transferred to the irrigation well and system in the NE $\frac{1}{4}$ of section 29, T117N R61W.

AQUIFER – TULARE - EAST JAMES (T-EJ)

The Tulare East James aquifer has been determined by the Water Management Board to be fully appropriated base upon water use. That determination is the reason this application is being filed. For practical purposes the applicant simply wants to irrigate another 100 acres of land from a well which he has already installed. The applicant is attempting to “find” authority to use water under his existing water permits/rights which can be transferred to this application.

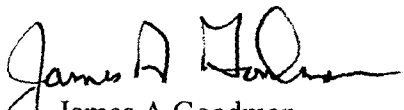
The first issue is the transfer of 100 acres from Water Right No. 4586-3. Transfers can be done under SDCL 46-5-34. However, water has to be transferred under this statute. One could argue that transferring 100 acres would imply that 200 acre-feet of water (statutory limit of two acre-feet per acre) is also being transferred. However, this water was never used under the existing water right because of limitations in the design of the system. This was a system that has one well capable of producing 1.7 cfs which could only be used among three potential pivot sites. Transferring 100 acres from Water Right No. 4586-3 will more than likely not affect the volume of water used under that water right so there is nothing to transfer.

The next issue is transferring diversion authority from Water Right Nos. 970-3 and 987-3 to this application. The Water Management Board has already quantified Water Right No. 970-3 to a rate of 1.88 cfs for irrigation of 132 acres at the December 4, 2002 Board hearing. The diversion rate has changed by installation of different pumps and equipment but this was already recognized and validated by the board. There is nothing to transfer.

The issue of Water Right No. 987-3 is different. That water right was licensed for 2.2 cfs for irrigation of 154 acres in the SW $\frac{1}{4}$ of section 20 from a well near the center of the NW $\frac{1}{4}$ of section 29. That appears to be the same well that is used for Water Right No. 970-3. Further complicating this issue is Water Right No. 4158-3 which is licensed for 1.94 cfs from a well located SE $\frac{1}{4}$ SW $\frac{1}{4}$ of section 20 and for irrigation of 136 acres in the SW $\frac{1}{4}$ of section 20. Water Right No. 4158-3 overlaps the older Water Right No. 987-3. It appears that Water Right No. 987-3 has been abandoned for many years or at least licensed into Water Right No. 4158-3.

CONCLUSIONS

1. The Tulare East James is a fully appropriated aquifer. Thus any transfers or changes in water permits/rights must be held to the strict standard of no additional water use from the aquifer.
2. Transferring 100 acres of irrigated land from Water Right No. 4586-3 can be done, however, water must also be transferred. A volume of water along with the diversion rate needed to accomplish watering is necessary. The application does not indicate any rate or volume transfer.
3. Water Right No. 970-3 has already been quantified by the Water Management Board and there is nothing left to transfer unless the applicant wants to abandon and transfer the quantified right.
4. Water Right No. 987-3 has been forfeited and abandoned. This right should be cancelled.
5. Water Right No. 4158-3 appears to overlap and make Water Right No. 987-3 redundant.


James A Goodman
Natural Resources Engineer



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 6382-3, William St. Clair**

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. 6382-3, William St. Clair, 37644 184th Street, Tulare SD 57476.

The Chief Engineer is recommending DENIAL of Application No. 6382-3 because 1) the diversion authority which the applicant proposes to transfer under Water Right No. 970-3 no longer exists (pending the adoption of Findings of Fact, Conclusions of Law and a Final Decision in the matter of cancellation of a portion of Water Right No. 970-3), 2) the proposed transfer would be an increase in diversion from the aquifer, 3) all water available for appropriation within the Tulare East James Aquifer in Spink County is presently appropriated; and 4) it is not in the public interest because the unavailability of proven recharge capacity within the Tulare East James Aquifer.

See report on application for additional information.

Garland Erbele, Chief Engineer
April 2, 2003

Water Rights Program - DENR
Conversation File Documentation

NAME OF PERSON OR FILE: William St. Clair

ADDRESS: COUNTY: Spink

DATE: February 24, 2003 TELEPHONE:

RE: Discussion on pending findings and pending application

COMMENTS:

Mr. St. Clair called regarding the proposed findings and DENR's comments that he received on February 22, 2003. I informed him that the comments were to be submitted by today, February 24th. He planned to request a continuance of the findings process.

He also requested that his pending application be put on hold while he investigates his alternatives.

NAME: Eric Handlund



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

March 12, 2003

William St. Clair
37644 184th Street
Tulare SD 57476

Dear Mr. St. Clair:

I am writing regarding the application you filed on January 14th to transfer acres and diversion rates within the Tulare:East James Aquifer. During our telephone conversation on February 24th you requested that the application be put on hold while you investigate alternatives. I believe you wanted to wait until the Board's final decision in the matter of cancellation of a portion of Water Right No. 9703 is issued. These findings will be considered at the Board's May 7th meeting.

Until I hear from you to proceed or amend this application, the application submitted on January 14, 2003 will remain on hold with the Water Rights Program.

Sincerely,

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

Water Rights Program - DENR
Conversation File Documentation

NAME OF PERSON OR FILE: Application No. 6382-3, William St. Clair

ADDRESS: COUNTY: Spink

DATE: March 13, 2003 TELEPHONE:

RE: Call from Mr. St. Clair

COMMENTS:

Mr. St. Clair called in response to my March 12th letter regarding Application No. 6382-3. Jim Goodman took his call where he indicated he wanted us to proceed with his application.

NAME: 

4/10/03

RECEIVED

APR 11 2003

WATER RIGHTS
PROGRAM

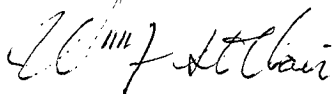
Eric Gronlund
DENR,
Joe Foss Building
523 East Capitol
Pierre, SD. 57501-3182

Dear Mr. Gronlund,

RE: Request for a delay in the consideration of Water Permit No. 6382-3.

In light of the stance of the DENR. on Permit #6382-3, the absence of one of the parties to this application, and a further conflict with the other party involved, I respectfully wish to pursue the option offered by the DENR. i.e. To delay consideration of Water Permit No. 6382-3 until the July 2003 Board meeting.

My Regards,



Wm. F. St. Clair
37644 184th St.
Tulare, SD. 57476
605-596-4262
Cel. 605-460-0080



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

April 17, 2003

Wm. F. St. Clair
37644 184th Street
Tulare SD 57476

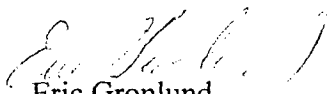
Dear Mr. St. Clair:

The Water Rights Program is in receipt of your request to delay consideration of Water Permit Application No. 6382-3 until the Water Management Board meeting in July. A notice of hearing will now be sent to you and the Redfield Press for publication scheduling a July 9th or 10th hearing before the Water Management Board. This notice will be sent after the Board's May 7th meeting. A cover letter will accompany the notice instructing you to contact the newspaper to authorize publication.

I also discussed with you during our telephone conversation that we received your comments to proposed finding of fact in the matter of cancellation of a portion of Water Right No. 970-3. I expect that you will be receiving a response from the Water Rights Program's staff attorney regarding your filing. As we discussed it is not our intent to object to your request to delay consideration of the findings until the July meeting as long you agree not to irrigate during the interim in the NE ¼ of Section 29. You confirmed that you did not plan to irrigate this quarter until you get the matter resolved. I want you to be aware that it is ultimately the Board's decision to grant or deny your request for delay of findings. I believe the Board will make that decision at the scheduled time to consider findings at the May 7th meeting.

If you have any questions, please feel free to contact me.

Sincerely,


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

OK

Notice of Hearing

Affidavit of Publication

STATE OF SOUTH DAKOTA,
County of Spink: ss.

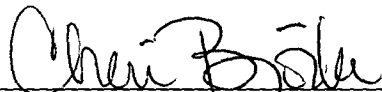
I, Mark E. Davis, of said County & State, be first duly sworn on oath, say that THE REDFIELD PRESS is a legal weekly newspaper as defined in Sec. 65.0508 South Dakota Code 1939, amended by Chapter 298 of the Session of Legislature of 1939, printed and published in the English language in the City of Redfield, in said County and State, by THE REDFIELD PRESS, and has been such newspaper during the time hereinbefore mentioned, and that I Mark E. Davis the undersigned, am Publisher of said newspaper in charge of the advertising department thereof, and have personal knowledge of all the facts stated in this affidavit and that the legal or official notice entitled:

#226 Notice of Hearing

A printed copy of which is hereto attached, was printed and published in said newspaper in successive issues, to wit: The first publication being made on May 28, 2003 and the publication being made on June 4, 2003 that full amount of the fee charged for publishing same to-wit: the sum of Fifty-seven and 84/100 Dollars, insures to the benefit of the publisher THE REDFIELD PRESS, that no agreement or understanding for the diversion thereof has been made with any other person, and that no part thereof has been agreed to be paid to any person whomsoever.



Subscribed and sworn to before me this 4th day of June, 2003.



Notary Public, South Dakota

My term expires 11/27/08

No. 226
NOTICE OF HEARING ON WATER
PERMIT APPLICATION NO. 6382-3
Notice is given that William St. Clair, 31644 184th Street, Tulare SD 57476 has filed a water right permit application to transfer acres held under Water Right No. 4586-3 and diversion authority of Right Nos. 970-3 and 987-3 to irrigate 100 acres located in the NE 1/4 of Section 29, T117N, R61W. All referenced sections in this notice are in T117N, R61W.

Water Right No. 4586-3 appropriates 1.7 cubic feet of water per second (cfs) from one well (Tulare:East James Aquifer) located in the SW 1/4 NW 1/4 of Section 28 to irrigate 364 acres located in the N 1/2 Section 28 and the SW 1/4 Section 21. This application proposes to move the location of 100 acres authorized by No. 4586-3 to the NE 1/4 of Section 29. State Law (SDCL 46-5-34) allows an irrigation water right to be severed from one parcel of land and simultaneously transferred to another parcel if it is impractical to use all or any part of the water beneficially or economically for irrigation on the current land. Mr. St. Clair does not intend to transfer any of the water authorized by Right No. 4586-3 to the new well located in the NE 1/4 of Section 29.

The applicant then requests to transfer a portion of the diversion authority from Water Right No. 970-3 and 987-3 to provide water for irrigation utilizing the well located near the center of the NE 1/4 Section 29. Water Right No. 970-3 at the Water Management Board's meeting was quantified to be valid for 1.88 cfs from a well located in the NW 1/4 Section 29 to irrigate 132 acres. This decision is subject to the Board adopting a final decision. Water Right No. 987-3 is on record as appropriating 2.2 cfs from a well (same well as authorized by 970-3) to irrigate 154 acres all located in the SW 1/4 of Section 20. The applicant claims that due to recent replacement of pumps and irrigation pivots, he has conserved 1.17 cfs (526 gpm) which can now be transferred to the

125696
irrigation well and system in the NE 1/4 of Section 29.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends DENIAL of Application No. 6382-3: 1) the diversion authority which the applicant proposes to transfer under Water Right No. 970-3 no longer exists (pending the adoption of Finding of Fact, Conclusions of Law and a Final Decision in the matter of cancellation of a portion of Water Right No. 970-3); 2) the proposed transfer would be an increase in diversion from the aquifer; 3) all water available for appropriation within the Tulare East James Aquifer in Spink County is presently appropriated; and 4) it is not in the public interest.

Any person interested in opposing or supporting this application must file a written petition with BOTH the applicant and Chief Engineer. The applicant must also file a petition if opposed to 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 June 27, 2003. 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.

The Water Management Board will consider this application at 1:00 P.M. July 10, 2003 in the Matthew Training Center, Foss Building, 523 E. Capitol, Pierre, SD. The Chief Engineer's recommendation is not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny this application based on the facts presented at the public hearing. The July 10, 2003 hearing date will be automatically delayed for at least 20 days upon written request to the Chief Engineer from the applicant or any interested person opposing the application. The request for an automatic delay must be filed by June 27, 2003. Any hearing may be an adversarial proceeding. Any person filing a petition and/or the applicant have the right to be represented by a lawyer and may present evidence or cross-examine witnesses according to SDCL 1-26. These and other due process rights will be forfeited if not exercised. Decisions of the Board may be appealed to the Circuit Court and State Supreme Court as provided by law. Contact Eric Gronlund by June 27, 2003 at the above Water Rights Program address to request copies of information pertaining to this application, to assure access to the hearing by the handicapped or to obtain an interpreter for the hearing impaired.

This application is made pursuant to SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-16; 46-2-3.1, 46-2-9, 46-2-11, 46-2-13, 46-2-17; 46-2A-1 thru 46-2A-10, 46-2A-12, 46-2A-14, 46-2A-15, 46-2A-20, 46-2A-21, 46-5-1 thru 46-5-11, 46-5-13 thru 46-5-15, 46-5-24, 46-5-25, 46-5-30.2, 46-5-30.4, 46-5-31; 46-6-3, 46-6-3.1, 46-6-6.1, 46-6-10, 46-6-13, 46-6-14, 46-6-26; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15.

Steven M. Pirner, Secretary
Department of Environment of
Natural Resources
(May 28, June 4)



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

www.state.sd.us/denr

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

May 19, 2003

William St. Clair
37644 184th Street
Tulare SD 57476

Dear Mr. St. Clair

Water Permit Application No. 6382-3 for irrigation use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice of hearing has been sent to the Publisher of the Redfield Press printed at Redfield SD (Ph # 605-472-0822). You will need to contact the newspaper and authorize publication of this notice. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

The notice of hearing will schedule a July 10th hearing on the application. The application is scheduled at the same time as consideration of findings of fact, conclusions of law and a final decision in the matter of cancellation of a portion of Water Right No. 970-3.

You have indicated a desire to oppose the Chief Engineer's denial recommendation for Application No. 6382-3 and proceed to a July hearing before the Water Management Board. The Water Management Board will then consider your testimony during a hearing on the application.

Be sure to contact the above newspaper to authorize publication of your Notice of Hearing and to arrange for payment. Early contact with the paper can eliminate delays. Upon receiving authorization, the publisher has been instructed to publish your notice once each week for two consecutive weeks with the last publication to occur twenty days before the board meeting. 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

enclosure



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

May 19, 2003

Redfield Press
PO Box 440
Redfield SD 57469-0440

ATTENTION: Legal Public Notice

Enclosed is a Notice of Hearing on Application No. 6382-3 to Appropriate Water to be published twice. Please publish the first notice on May 28, 2003 with the second publication 7 days later.

The applicant must verify to you that the notice is to be published, before you make the first publication. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is William St. Clair, 31644 184th Street, Tulare SD (Ph # 605-596-4262).

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

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

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

CUT HERE

No. 6382-3

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

Date _____

We are in receipt of your letter of May 19, 2003 enclosing Notice of Hearing to Appropriate Water by Application No. 6382-3 which was first published in our issue of _____. **ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.**

Name _____

Newspaper _____

Instruction to Newspaper - Publish first Notice on April 9, 2003 with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF HEARING ON WATER PERMIT APPLICATION NO. 6382-3

Notice is given that William St. Clair, 31644 184th Street, Tulare SD 57476 has filed a water right permit application to transfer acres held under Water Right No. 4586-3 and diversion authority of Right Nos. 970-3 and 987-3 to irrigate 100 acres located in the NE ¼ of Section 29, T117N, R61W. All referenced sections in this notice are in T117N, R61W

Water Right No. 4586-3 appropriates 1.7 cubic feet of water per second (cfs) from one well (Tulare:East James Aquifer) located in the SW ¼ NW ¼ of Section 28 to irrigate 364 acres located in the N ½ Section 28 and the SW ¼ Section 21. This application proposes to move the location of 100 acres authorized by No. 4586-3 to the NE ¼ of Section 29. State Law (SDCL 46-5-34) allows an irrigation water right to be severed from one parcel of land and simultaneously transferred to another parcel if it is impractical to use all or any part of the water beneficially or economically for irrigation on the current land. Mr. St. Clair does not intend to transfer any of the water authorized by Right No. 4586-3 to the new well located in the NE ¼ of Section 29.

The applicant then requests to transfer a portion of the diversion authority from Water Right No. 970-3 and 987-3 to provide water for irrigation utilizing the well located near the center of the NE ¼ Section 29. Water Right No. 970-3 at the Water Management Board's meeting was quantified to be valid for 1.88 cfs from a well located in the NW ¼ Section 29 to irrigate 132 acres. This decision is subject to the Board adopting a final decision. Water Right No. 987-3 is on record as appropriating 2.2 cfs from a well (same well as authorized by 970-3) to irrigate 154 acres all located in the SW ¼ of Section 20. The applicant claims that due to recent replacement of pumps and irrigation pivots, he has conserved 1.17 cfs (526 gpm) which can now be transferred to the irrigation well and system in the NE ¼ of Section 29.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends DENIAL of Application No. 6382-3 1) the diversion authority which the applicant proposes to transfer under Water Right No. 970-3 no longer exists (pending the adoption of Findings of Fact, Conclusions of Law and a Final Decision in the matter of cancellation of a portion of Water Right No. 970-3), 2) the proposed transfer would be an increase in diversion from the aquifer, 3) all water available for appropriation within the Tulare East James Aquifer in Spink County is presently appropriated; and 4) it is not in the public interest.

Any person interested in opposing or supporting this application must file a written petition with BOTH the applicant and Chief Engineer. The applicant must also file a petition if opposed to 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 April 28, 2003. 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.

The Water Management Board will consider this application at 1:00 P.M. May 7, 2003 in the Matthew Training Center, Foss Building, 523 E Capitol, Pierre, SD. The Chief Engineer's recommendation is not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny this application based on the facts presented at the public hearing. The May 7, 2003 hearing date will be automatically delayed for at least 20 days upon written request to the Chief Engineer from the applicant or any interested person opposing the application. The request for an automatic delay must be filed by April 28, 2003.

Any hearing may be an adversarial proceeding. Any person filing a petition and/or the applicant have the right to be represented by a lawyer and may present evidence or cross-examine witnesses according to SDCL 1-26. These and other due process rights will be forfeited if not exercised. Decisions of the Board may be appealed to the Circuit Court and State Supreme Court as provided by law. Contact Eric Gronlund by April 28, 2003 at the above Water Rights Program address to request copies of information pertaining to this application, to assure access to the hearing by the handicapped or to obtain an interpreter for the hearing impaired.

This application is made pursuant to SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-16; 46-2-3.1, 46-2-9, 46-2-11, 46-2-13, 46-2-17; 46-2A-1 thru 46-2A-10, 46-2A-12, 46-2A-14, 46-2A-15, 46-2A-20, 46-2A-21; 46-5-1 thru 46-5-11, 46-5-13 thru 46-5-15, 46-5-24, 46-5-25, 46-5-30.2, 46-5-30.4, 46-5-31; 46-6-3, 46-6-3.1, 46-6-6.1, 46-6-10, 46-6-13, 46-6-14, 46-6-26; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15 Steven M. Pirner, Secretary, Department of Environment and Natural Resources.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

July 15, 2003

NOTICE

TO: William St. Clair
37644 184th Street
Tulare SD 57476

FROM: Garland Erbele, Chief Engineer
Water Rights Program

SUBJECT: Preparation of Findings of Fact, Conclusions of Law and Final Decision

The Water Management Board directed John Guhin, the Board's attorney, to prepare proposed Findings of Fact, Conclusions of Law and a Final Decision in the matter of Water Permit Application No. 6382-3, William St. Clair. The Board will consider the proposed Findings, Conclusions and Final Decision at 1:00 PM, on October 1, 2003, in the Floyd Matthew Training Center, Joe Foss Building, 523 E. Capitol Avenue, Pierre SD.

The Board requested that a copy of the proposed Findings, Conclusions and Final Decision be mailed to each Board member and Mr. St. Clair by September 11, 2003. Written objections or comments in support of the proposed Findings, Conclusions and Final Decision, or alternative Findings, Conclusions and Final Decision are to be mailed to each Board member, the Board attorney (mailing list enclosed) by September 22, 2003.

Oral arguments by parties who timely filed written comments in opposition or support of the proposed Findings, Conclusions and Final Decision, or alternative Findings, Conclusions and Final Decision may be made on October 1, 2003. The public hearing was completed July 7, 2003. No additional testimony will be received on October 1, 2003 unless the Board determines it is necessary to reopen the hearing.

Enclosure

c: John Guhin, Deputy Attorney General
Diane Best, Assistant Attorney General
Kevin Dettler, 40168 173rd Street, Doland SD 57436

CERTIFICATION

I hereby certify that on July 15, 2003 , I have personally deposited with the United States mail at Pierre, South Dakota, first class postage, prepaid envelopes containing a Notice dated July 15, 2003 regarding preparation of findings of fact, conclusions of law and final decision in the matter of Water Permit Application No. 6382-3 addressed as stated below:

William St. Clair
37644 184th Street
Tulare SD 57476

Kevin Dettler
40168 173rd Street
Doland SD 57436

A copy of the above described Notice was sent Inter-office to:

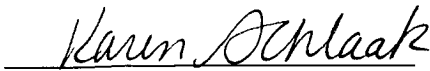
John Guhin, Deputy Attorney General, Capitol Building
Diane Best, Assistant Attorney General, Capitol Building



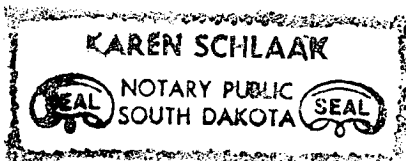
Eric Gronlund
Natural Resource Engineer
Water Rights

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 16th day of July, 2003.



Karen Schlaak
Notary Public
My Commission expires April 1, 2007





OFFICE OF ATTORNEY GENERAL

500 East Capitol Avenue
Pierre, South Dakota 57501-5070
Phone (605) 773-3215
FAX (605) 773-4106
www.state.sd.us/atg

LARRY LONG
ATTORNEY GENERAL

MARK BARNETT
CHIEF DEPUTY ATTORNEY GENERAL

September 22, 2003

RECEIVED

SEP 23 2003

WATER RIGHTS
PROGRAM

MEMORANDUM

TO: MEMBERS OF THE WATER MANAGEMENT BOARD AND INTERESTED PARTIES

FROM: Diane Best, Assistant Attorney General *CM for DB*

RE: DENR Request to Delay Response to Proposed Findings of Fact, Conclusions of Law, and Final Decision In the Matter of Water Permit Application No. 6382-3, to Transfer 100 Acres Held Under Water Right No. 4586-3 and the Diversion Authority Under Water Rights Nos. 970-3 and 987-3, William St. Clair

Enclosed please find DENR's Request to Delay the Response to Board counsel's Proposed Findings of Fact, Conclusions of Law, in the above-entitled case.

cc/enc: William St. Clair
Kevin Dettler
Francis E. Brink
Rodney Freeman, Jr.
Marian Gunderson
Leo Holzbauer
Bernita Loucks
Dwayne Rollag
Garland Erbele
John P. Guhin

STATE OF SOUTH DAKOTA

BEFORE THE WATER MANAGEMENT BOARD

IN THE MATTER OF WATER PERMIT	)	
APPLICATION NO. 6382-3, TO	)	DENR REQUEST TO DELAY
TRANSFER 100 ACRES HELD	)	CONSIDERATION OF PROPOSED
UNDER WATER RIGHT NO. 4586-3	)	FINDINGS OF FACT,
AND THE DIVERSION AUTHORITY	)	CONCLUSIONS OF LAW
UNDER WATER RIGHTS NOS. 970-3	)	AND FINAL DECISION
AND 987-3, WILLIAM ST. CLAIR	)	
	)	

COMES NOW, the South Dakota Department of Environment and Natural Resources, Water Rights Program, (DENR) and requests delay to file its Response to the Proposed Findings of Fact, Conclusions of Law, and Final Decision in the above-entitled matter. DENR further requests a delay of the Board hearing to consider these findings scheduled for October 1, 2003.

This request for delay is made to allow the parties in this case additional opportunity to negotiate. Also, undersigned counsel has a family emergency requiring additional time to file responsive pleadings in this matter.

The DENR has attempted to contact Mr. St. Clair but has been unable to reach him to request delay of the hearing in this matter.

DENR respectfully requests that the hearing to consider Proposed Findings of Fact, Conclusions of Law, and Final Decision be rescheduled for the Board's December 3 - 4, 2003 meeting. Further, DENR requests that written response to Board counsel's Proposed Findings of Fact, Conclusions of Law and Final Decision

now be mailed to each Board member, the Board attorney and parties by November 21, 2003.

Dated this 22nd day of September, 2003.

Respectfully submitted,

Charles D. McQuinn for

Diane Best
Assistant Attorney General
500 East Capitol Avenue
Pierre, South Dakota 57501-5070
Telephone (605) 773-3215

c-pld149.db St. Clair Request for time

CERTIFICATE OF SERVICE

The undersigned hereby certifies that true and correct copies of DENR Request to Delay Consideration of Proposed Findings of Fact, Conclusions of Law, and Final Decision In the Matter of Water Permit Application No. 6382-3, to Transfer 100 acres held Under Water Right No. 4586-3 and the Diversion Authority Under Water Rights Nos. 970-3 and 98-3, William St. Clair were served upon each of the following by enclosing the same in envelopes with first class postage, prepaid and affixed thereto, and depositing said envelopes in the United States mail, at Pierre, South Dakota, on this 22nd day of September, 2003:

William St. Clair
37644 184th Street
Tulare, SD 57476-7007

Kevin Dettler
40168 173rd Street
Doland, SD 57436

Francis E. Brink
1214 South Wells Street
Aberdeen, SD 57401-7351

Rodney Freeman, Jr.
P.O. Box 176
Huron, SD 57350-0176

Marian Gunderson
811 West 3rd
Yankton, SD 57078-3702

Leo Holzbauer
RR 1, Box 170
Wagner, SD 57380-9681

Bernita Loucks
219 42nd Street
Rapid City, SD 57702-0240

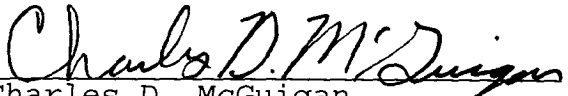
Dwyane Rollog, Chairman
320 Lincoln Lane S
Brookings, SD 57006-2741

by interoffice mail to:

Garland Erbele, Chief Engineer
Water Rights Program
Joe Foss Building
523 East Capitol Avenue
Pierre, SD 57501-3181

by hand-delivery to:

John P. Guhin, Deputy Attorney General
Office of Attorney General
Natural Resources Section
State Capitol Building
500 East Capitol Avenue
Pierre, SD 57501-5070


Charles D. McGuigan
Assistant Attorney General
500 East Capitol Avenue
Pierre, South Dakota 57501-5070
Telephone: (605) 773-3215



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

October 8, 2003

NOTICE

TO: William St. Clair
37644 184th Street
Tulare SD 57476

FROM: Garland Erbele, Chief Engineer
Water Rights Program *Garland Erbele*

SUBJECT: Rescheduling Hearing to Consider Findings of Fact, Conclusions of Law and Final Decision

On October 1, 2003, the Water Management Board granted DENR's request to delay consideration of Findings of Fact, Conclusions of Law and a Final Decision in the matter of Water Permit Application No. 6382-3, William St. Clair. The Board will now consider the Findings, Conclusions and Final Decision at 1:15 PM, on December 3, 2003, in the Floyd Matthew Training Center, Joe Foss Building, 523 E. Capitol Avenue, Pierre SD. The agenda time is an estimate and may be delayed due to prior agenda items.

The Board also set November 21, 2003 as the date written responses to Board counsel's proposed Finding of Fact, Conclusions of Law and Final Decision are to be mailed to each Board member, the Board attorney and parties (mailing list enclosed).

At the discretion of the Board, oral arguments by parties who file a written response in opposition or support of the proposed Findings, Conclusions and Final Decision, or alternative Findings, Conclusions and Final Decision may be made on December 3, 2003. The public hearing was completed July 10, 2003. No additional testimony will be received on December 3, 2003 unless the Board determines it is necessary to reopen the hearing.

enclosure

c: John Guhin, Deputy Attorney General
Diane Best, Assistant Attorney General
Kevin Dettler, 40168 173rd Street, Doland SD 57436

CERTIFICATION

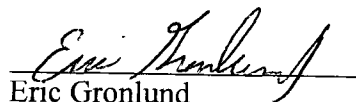
I hereby certify that on October 8, 2003, I have personally deposited with the United States mail at Pierre, South Dakota, first class postage, prepaid envelopes containing a Notice dated October 8, 2003, scheduling consideration of findings of fact, conclusions of law and final decision in the matter of Water Permit Application No. 6382-3, William St. Clair, addressed as stated below.

William St. Clair
37644 184th Street
Tulare SD 57476

Kevin Dettler
40168 173rd Street
Doland SD 57436

A copy of the Notice was sent Inter-office to:

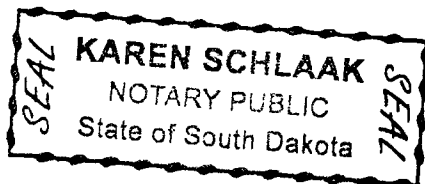
John Guhin, Deputy Attorney General
Diane Best, Assistant Attorney General


Eric Gronlund
Natural Resource Engineer
Water Rights Program

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 9th day of October, 2003.


Karen Schlaak
Notary Public
My Commission expires April 1, 2007





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

December 17, 2003

NOTICE

TO: William St. Clair
37644 184th Street
Tulare SD 57476

FROM: Garland Erbele, Chief Engineer
Water Rights Program

SUBJECT: Adoption of Findings of Fact, Conclusions of Law and Final Decision

This is to notify you that the Final Decision, including Findings of Fact and Conclusions of Law, were adopted December 3, 2003, by the Water Management Board approving Water Right Permit Application No. 6382-3 subject to the conditions set forth in the final decision. A copy of the signed Findings of Fact, Conclusions of Law and Final Decision is enclosed.

South Dakota statutes provide that decisions of the Board may be appealed to the Courts. Notice of appeal of the Board's decision must be filed within thirty days of this notice and be in accordance with procedures established in SDCL 1-26-31.

Based on the Vice Chairman's signing the findings on December 15, 2003, you have 60 days (February 12, 2004) to present the acres, volume and diversion sought to be transferred as set forth in the Final Decision. The Water Rights Program will then have 60 days to analyze your submittal. The Water Rights Program is willing to discuss ways to make the permit mutually acceptable.

Enclosure

c: John Guhin, Deputy Attorney General
Diane Best, Assistant Attorney General
Kevin Dettler, 40168 173rd Street, Doland SD 57436

STATE OF SOUTH DAKOTA

BEFORE THE WATER MANAGEMENT BOARD

IN THE MATTER OF WATER PERMIT)
APPLICATION NO. 6382-3, TO)
TRANSFER ONE HUNDRED ACRES)
HELD UNDER WATER RIGHT)
NO. 4586-3 AND THE DIVERSION)
AUTHORITY UNDER WATER RIGHTS)
NOS. 970-3 AND 987-3,)
WILLIAM ST. CLAIR.)

FINDINGS OF FACT,
CONCLUSIONS OF LAW
AND FINAL DECISION

FINDINGS OF FACT

1. Application No. 6382-3, submitted by Mr. William St. Clair, seeks to transfer one hundred acres held under Water Right No. 4586-3 and diversion authority of Water Right Nos. 970-3 and 987-3 to irrigate one hundred acres in the NE1/4 of Section 29, T117N, R61W in Spink County (all references herein are to T117N, R61W).

2. Water right 4586-3 appropriates 1.7 cfs from one well located in Section 28 to irrigate 364 acres located in Section 28 and Section 21. This application would move the location of one hundred acres authorized by Water Right No. 4586-3 to the NE1/4 of Section 29.

3. Water Right 970-3, by Order of the Board dated July 31, 2003, allows the appropriation of 1.88 cfs from one well in the NW1/2 of Section 29 to irrigate 132 acres in the NW1/4 of Section 29. In the Matter of the Petition for Cancellation of a Portion of Water Right No. 970-3, William St. Clair (July 31, 2003, South Dakota Water Management Board). Mr. St. Clair seeks, in the present application, to transfer a portion of the diversion authority from Water Right No. 970-3 to the one hundred new acres he desires to irrigate in the NE1/4 of Section 29.

4. Water Right 987-3 allows appropriation of 2.2 cfs from the same well as authorized by Water Right No. 970-3 to irrigate 154 acres located in the SW1/4 of Section 20. The Water Rights Program contests the validity of this water right. Applicant seeks to transfer a portion of the diversion authority from Water Right No. 987-3, in addition to 970-3, to irrigate the one hundred acres in the NW1/4 of Section 29.

5. Mr. St. Clair asserts that because he has recently, in 2001 and 2002, modernized his irrigation systems, he has conserved 1.17 cfs water or 526 gallons per minute. Mr. St. Clair asserts legal authority, or moral authority (the argument is not quite clear) to transfer the saved water to the irrigation well and system in the NE1/4 of Section 29.

6. Testimony before the Board indicated that the low-pressure irrigation systems installed by Mr. St. Clair are more efficient in their use of water than are the high-pressure systems. There was no contradictory evidence. The Board finds that the systems recently installed by Mr. St. Clair conserved a significant amount of water.

7. Pursuant to SDCL 46-5-34, it is necessary for an applicant for a change in location of use of water to demonstrate that it is "impracticable to use all or any part of the water beneficially or economically for irrigation of any land. . . ." Mr. St. Clair testified that it was economically disadvantageous to continue use of water at the present locations in view of the fact that he had available to him a much more desirable location for use of the water, that being the NE1/4 of Section 29. When

an irrigator demonstrates that he can obtain a significant financial advantage by changing the location of the use of the water, he has demonstrated that it is "impracticable. . . . economically" to use the water in its present location. No testimony was offered to the contrary of Mr. St. Clair's testimony in this regard.

CONCLUSIONS OF LAW

1. The Board has jurisdiction over this matter.
2. All notices required by statute and constitution have been given.
3. The Board concludes that there are at least three statutes which create requirements with regard to the severance and transfer of irrigation rights.

a. SDCL 46-5-34 provides that water shall remain appurtenant to the land upon which it is used except that if it becomes "impracticable to use all or any part of the water beneficially or economically for irrigation" it might be transferred without losing priority "subject to existing rights, upon approval" by this Board. This section adds that "no increase in total acres irrigated may be allowed under this section."

b. SDCL 46-5-30.4, which directly references SDCL 46-5-34, specifically provides that "An amendment of a water permit or right may not increase the rate of diversion or increase the volume of water to be appropriated under the original water permit or right. The amendment may not impair existing rights."

c. SDCL 46-2A-12 provides that an amendment to a water right may be granted only if it "does not unlawfully impair existing rights and is for a beneficial use and in the public interest." See SDCL 46-5-30.4 (citing 46-2A).

4. Pursuant to the statutory arrangement, the Board concludes an applicant seeking to sever water from a particular location and change its use to a different location must (1) identify the land upon which the water is presently used pursuant to SDCL 46-5-34, (2) must identify the "volume of water . . . under the original water permit right," which is sought to be transferred and must (3) identify the "rate of diversion" sought to be transferred.

5. The printed Notice of Hearing in this matter, to which Mr. St. Clair does not object, indicates that the purpose of his application is to transfer one hundred acres held under the authority of Water Right No. 4586-3 to the NE1/4 of Section 29, T117N, R61W.

6. Pursuant to the second requirement set forth in paragraph 4, above, an applicant seeking to transfer part of a water right must establish, to the satisfaction of the Board, the "volume of water . . . appropriated" for that acreage. See SDCL 46-5-30.4.

7. The statute does not, however, indicate how that "volume" is to be calculated. In prior cases, the Board has allowed transfer of vested water rights from irrigators to the City of Rapid City. In such cases the Board has allowed transfer of the volume of water supplied and "consumed annually by the

crops planted" on the acreage. See In the Matter of Water Permit Application No. 2317-2, An Application of the City of Rapid City to Transfer the Use of Water Appropriated under Vested Water Right No. 2039-2-Hawthorne Ditch Company (Water Management Board June 24, 1996). (This case is one of a series of Rapid City Transfer Cases.)

8. The Rapid City Transfer Cases, however, including that set forth above, are not precisely analogous because the water in those cases was being transferred from irrigation to municipal use and because the original right came into being under a prior system. Nonetheless, the prior cases do reflect the salutary principal that the volume of water transferred should fairly reflect the volume actually consumed by the irrigator on the acreage in question, under the existing climatic conditions and given the crop irrigated.

9. The Board therefore will direct the Applicant to identify the land sought to be removed from irrigation and to quantify the volume of water sought to be transferred under Water Right No. 4586-3 in accordance with the precedent of the Rapid City Transfer Cases, with appropriate modifications being made to allow for the differences in the nature of the cases. The Water Rights Program may assist the Applicant if it deems this to be appropriate.

10. Applicant St. Clair has also requested the Board to transfer "diversion authority" from water rights Nos. 970-3 and 987-3. There is, however, no statutory authority allowing transfer of diversion authority. Pursuant to SDCL 46-5-34,

particular land must be identified which will be taken out of irrigation production as a prerequisite to a transfer. No such land is identified with regard to Water Rights Nos. 970-3 and 987-3. The Board concludes that there is no legal basis for the Applicant's request to transfer a portion of the diversion authority from Water Rights Nos. 970-3 and 987-3.

11. As noted above, Mr. St. Clair claims legal authority or at least moral authority to use water on the NE1/4 of Section 29 by virtue of the fact that he has made his system more efficient on other lands. While the Board is sympathetic to the ideals underlying this approach, the Board concludes that the approach does not embody an allowable construction of South Dakota law. Mr. St. Clair does not, in fact, cite any provision of South Dakota law or any case authority which permits the interpretation of law he offers.

12. Because of the manner in which the Board has resolved this question, it is unnecessary to resolve the validity of Water Right No. 987-3.

FINAL DECISION

Water Permit Application 6382-3 Is GRANTED With the Following Conditions and Qualifications:

1. Within sixty days of the date upon which this Final Decision is signed by the Chair of the Water Management Board, Mr. St. Clair must precisely identify the acreage covered under Water Right No. 4586-3 sought to be transferred to the NE1/4 of Section 29, T117N, R61W. Mr. St. Clair must further calculate the volume of water sought to be transferred with that one hundred acres in accordance with the Findings set forth above and

the rate of diversion he seeks to transfer. Mr. St. Clair must then submit these materials to the Water Rights Program within the sixty-day period identified above.

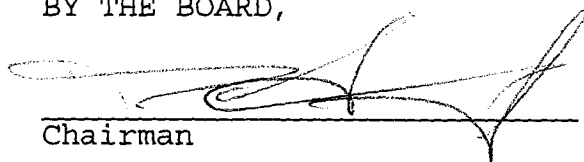
2. The Water Rights Program shall have sixty days in which to analyze the materials submitted by Mr. St. Clair.

3. The Water Rights Program and Mr. St. Clair shall then proceed as follows: (a) By the end of the sixty-day period allowed to it, the Water Rights Program shall issue a proposed Permit setting out the identification of the land to be transferred, the identification of the one hundred acres in NE1/4 of Section 29, the total volume of water which can be used on the NE1/4 of Section 29, the diversion rate at which water can be used on the NE1/4 of Section 29, and such other provisions and qualifications that it believes to be appropriate, all in accordance with this document. Mr. St. Clair shall have thirty days to object. If Mr. St. Clair files an objection within thirty days of the mailing of the proposed Permit to him, the Permit shall not become final and the matter shall promptly be scheduled before the Board. If Mr. St. Clair does not file an objection, the Permit shall be final. (b) If, at the end of the sixty-day period assigned to it, the Water Rights Program determines that it lacks sufficient information to justify issuance of a permit under the conditions set forth in this document, it shall promptly schedule the matter before the Board.

4. The Board retains jurisdiction to determine any disputes arising under this Final Decision.

Dated this 15th day of Dec., 2003.

BY THE BOARD,


Chairman

pld.jpg (Findings of Fact) (jmm)

CERTIFICATION

I hereby certify that on December 17, 2003, I have personally deposited with the United States mail at Pierre, South Dakota, first class postage, prepaid envelopes containing a Notice dated December 17, 2003, regarding adoption of findings of fact, conclusions of law and final decision in the matter of Water Permit Application No. 6382-3, William St. Clair, addressed as stated below.

William St. Clair
37644 184th Street
Tulare SD 57476

Kevin Dettler
40168 173rd Street
Doland SD 57436

A copy of the Notice was sent Inter-office to:

John Guhin, Deputy Attorney General
Diane Best, Assistant Attorney General

Erin Lundberg

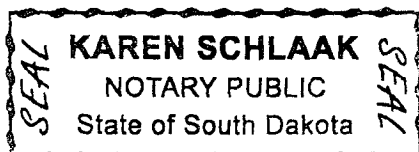
Eric Gronlund
Natural Resource Engineer
Water Rights Program

[illegible]

Sworn to, before me, this 17th day of December, 2003.

Karen Schlaak

Karen Schlaak
Notary Public
My Commission expires April 1, 2007



1/21/2004

RECEIVED

JAN 22 2004

WATER RIGHTS
PROGRAM

TO: Garland Erble, Chief Engineer
Water Rights Program
DENR
Joe Foss Bldg.
523 East Capitol
Pierre, SD. 57501-3182

FROM: William F. St. Clair
37644 184th Street
Tulare, SD. 57476

SUBJECT: The transfer of a portion of Water Right #4586-3 to pending Water Right #6382-3

Water Right #4586-3 provides for the irrigation of 364 acres from one well located on the southwest corner of Section 28-117-61 at a diversion rate of 1.7 cubic feet per minute. Three circles are permitted: One 132 acre circle in the SW 1/4 of Section 21-117-61, one 132 acre circle in the NW 1/4 of Section 28-117-61, overlapping into portions of the NE 1/4 of Section 28-117-61 (because of farmstead along the west side of the NW 1/4, that overlap creates a "pie cut" 100 acre part circle in the NE 1/4 of Section 28-117-61. This is the specific portion of Water Right #4586-3 we would like to move. (i.e.) Map is enclosed for reference.

We propose to transfer 100 irrigated acres out of Water Right #4586-3, located in the NE 1/4 of Section 28-117-61, along with 200 acre feet of water too a similarly configured "pie cut" 100 acre part circle into pending Water Right #6382-3, located in the NE 1/4 of Section 29-117-61 at the diversion rate of .57 cubic feet per minute from a well in the center of the NE 1/4 of Section 29-117-61.

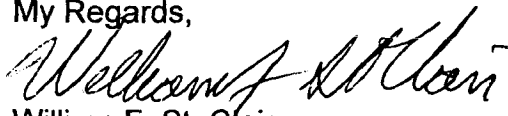
The remaining 1.14 cfm. under Water Permit #4586-3 would be restricted to the irrigation of 132 acres in the SW 1/4 of Section 21-117-61 and 132 acres in the NW 1/4 of Section 28-117-61 for a total of 264 acres.

We will install gate valves on each pump to restrict the diversion rate to the prescribed limits stated above.

Our hope is, that, at the minimum, the matter can be settled on or before the March 3, 2004 Water Board meeting so that we have the necessary time to order the parts and effect the modifications to the pumping stations before spring planting.

Please advise,

My Regards,


William F. St. Clair

P.S. We can be reached at: wfs@venturecomm.net while in New Zealand from 2/9/04 to 3/1/04 and by Cel. Phone 605-450-0080 while in Georgia from 3/4/04 to 3/18/04.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

February 17, 2004

William St. Clair
37644 184th Street
Tulare SD 57476

Dear Mr. St. Clair:

The Water Management Board approved Water Permit No. 6382-3 subject to you identifying the acreage, volume of water and diversion rate sought to be transferred. The Water Rights Program has reviewed your proposal to transfer a portion of Water Right No. 4586-3 to Water Permit No. 6382-3. The proposal is acceptable to the Water Rights Program with qualifications.

Please find enclosed a draft of Permit No. 6382-3 and a draft of reissued Water Right No. 4586-3. As set forth in the Board's final decision you have thirty days to contact us. If you do not object, Permit No. 6382-3 and reissued Water Right No. 4586-3 will be formally issued. If you have objections, the matter will be scheduled before the Board for resolution.

We are proposing a condition (Qualification No. 3) that a flow meter be installed to monitor the diversion rate from the well to ensure the permitted amount is not exceeded. The meter shall be placed in a manner that flow can be monitored. This meter requirement applies to both systems authorized by Water Permit No. 6382-3 and reissued Water Right No. 4586-3. The meters will need to be calibrated every three years.

I realize you are in New Zealand until March 1st and then go to Georgia for two weeks. If you need more than the thirty days to review the drafts and comment, please let me know.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
eric.gronlund@state.sd.us

Enclosure

c: Kevin Dettler, 40168 173rd Street, Doland SD 57436

SOUTH DAKOTA WATER PERMIT NO. 6382-3

Date of first receipt of application January 14, 2003.

The Water Management Board, approved Water Permit No. 6382-3 on December 3, 2003 to William St. Clair, 37644 184th Street, Tulare SD 57476 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. 6382-3 transfers 100 acres and the diversion authority of 0.57 cubic feet of water per second (cfs) from Water Right No. 4586-3 to the well and lands located in the NE ¼ Section 29, T117N, R61W.

Water Right No. 4586-3 appropriates 1.7 cubic feet of water per second (cfs) from one well (Tulare:East James Aquifer) located in the SW ¼ NW ¼ of Section 28 to irrigate 364 acres located in the N ½ Section 28 and the SW ¼ Section 21, T117N, R61W.

Water Permit No. 6382-3 transfers 0.57 cfs of the appropriated water authorized by Water Right No. 4586-3 to the well (Tulare:East James Aquifer) located near the center of the NE ¼ of Section 29, T117N, R61W. This Permit also transfers 100 acres from the NE ¼ of Section 28 which are part of the 364 acres authorized by Water Right No. 4586-3 to the NE ¼ Section 29, T117N, R61W. The annual volume of water may not exceed 2 acre feet per acre each year (2 ac-ft/acre X 100 acres = 200 acre feet annually).

Permit No. 6382-3 is being issued as set forth in the Water Management Board's Final Decision adopted December 3, 2003 and Mr. St. Clair's subsequent identification of the diversion rate and acreage to be transferred. These documents can be found in the Water Rights Program's administrative file for Permit No. 6382-3.

Water Right No. 4586-3 will be reissued to reflect the reduction in the diversion rate and irrigated acres resulting by the approval and issuance of Water Permit No. 6382-3.

2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: April 1 – September 30.
3. The date from which applicant may claim right is December 17, 1980 (established by Water Right No. 4586-3).
4. One-fifth of the construction is to be completed on or before June 3, 2006.
5. All construction is to be completed on or before December 3, 2008.

(continued)

6. Water is to be put to beneficial use on or before December 3, 2012.
7. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

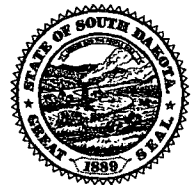
QUALIFICATIONS

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. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.
3. A flow meter with a readily accessible read out shall be installed at a point in the line between the well and the center pivot. The Water Rights Program shall be provided access to inspect and read the meter upon reasonable notice to the landowner or tenant. This meter shall be calibrated at least once every three years.
4. The Water Management Board retains jurisdiction of Permit No. 6382-3 to settle disputes arising under the Final Decision.

WATER MANAGEMENT BOARD

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

_____ date



STATE OF SOUTH DAKOTA
REISSUED
WATER LICENSE NO. 4586-3

(1) Lowell J Hofer was issued Water Right No. 4586-3, May 10, 1983 for a water right to divert 1.7 cubic feet of water per second (cfs) from groundwater (one well), Spink County, South Dakota for irrigation purposes. Water Right No. 4586-3, with a priority dates of August 18, 1976, March 4, 1977 and December 17, 1980 was issued to irrigate 364 acres located in the N ½ Section 28 and SW ¼ Section 21; all in T117N-R61W.

In November, 1990 the water right was transferred to William St. Clair, 37644 184th St, Tulare SD 57476.

Water Right No. 4586-3 is being reissued to reflect the reduction in the diversion rate and irrigated acres resulting from the approval and issuance of Water Permit No. 6382-3.

(2) The water supply system has been completed and water applied to beneficial use in accordance with South Dakota State Law. Pursuant to South Dakota Codified Law 46-5-30.1, the holder and/or owner of Water Right No. 4586-3 is reissued a license, bearing priority dates of August 18, 1976 (NW ¼ Section 28), March 4, 1977 (SW ¼ Section 21) and December 17, 1980 (NE ¼ Section 28) to appropriate 1.13 cubic feet of water per second from groundwater (one well) to irrigate 264 acres.

The diversion point is located: 1,870 feet south and 100 feet east of the NW corner of Section 28-T117N-R61W (SW ¼ NW ¼). The acres authorized for irrigation are as follows:

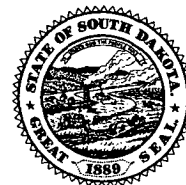
All in T117N-R61W					
Section 28	NW ¼ NW ¼	15 acres	Section 21	NE ¼ SW ¼	33 acres
	NE ¼ NW ¼	38 acres		NW ¼ SW ¼	33 acres
	SW ¼ NW ¼	15 acres		SW ¼ SW ¼	33 acres
	SE ¼ NW ¼	36 acres		SE ¼ SW ¼	33 acres
Section 28	NW ¼ NE ¼	14 acres			
	SW ¼ NE ¼	14 acres			
Total 264 acres					

(3) This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Permit No. 4586-3 including the following now applicable qualifications:

- The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
- This Permit is approved subject to the irrigation water use questionnaire being submitted each year.
- A flow meter with a readily accessible read out shall be installed at the point in the line between the well and the center pivot. The Water Rights Program shall be provided access to inspect and read the meter upon reasonable notice to the landowner or tenant. This meter shall be calibrated at least once every three years.

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

date



Gronlund, Eric

From: wfs@venturecomm.net
Sent: Thursday, February 19, 2004 4:06 AM
To: eric.gronlund@state.sd.us
Subject: Water Meters

Hi Eric,

I strongly object in principal to the installation of any water meters of any sort for the benefit of the state and I would like to present my reasons to the board at the March meeting if that can be arranged. I believe it is the 6th of March?

Bill St. Clair

2/19/2004



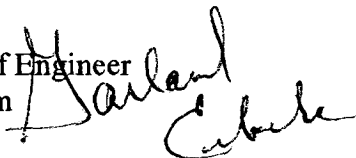
**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

February 20, 2004

NOTICE

TO: William St. Clair
37644 184th Street
Tulare SD 57476

FROM: Garland Erbele, Chief Engineer
Water Rights Program 

SUBJECT: Scheduling of Hearing to Consider Objection of Proposed Qualification to Water
Permit No. 6382-3, William St. Clair

The Water Management Board adopted Findings of Fact, Conclusions of Law and a Final Decision approving Water Permit No. 6382-3. In accordance with procedures set forth in the Final Decision you submitted information on the acreage, volume and diversion rate to be transferred from Water Right No. 4586-3 to Permit No. 6382-3. DENR subsequently drafted a permit. This proposed permit includes a qualification to install a water meter. You filed an objection to this qualification and requested that the matter be scheduled for the March Board meeting.

The Board will consider your objection to the proposed permit at 9:00 AM, on March 3, 2004, in the Floyd Matthew Training Center, Joe Foss Building, 523 E. Capitol Avenue, Pierre SD. The agenda time is an estimate and may be delayed due to prior agenda items.

If you have any questions, please contact Eric Gronlund at (605) 773-3352.

c: John Guhin, Deputy Attorney General
Diane Best, Assistant Attorney General
Kevin Dettler, 40168 173rd Street, Doland SD 57436

CERTIFICATION

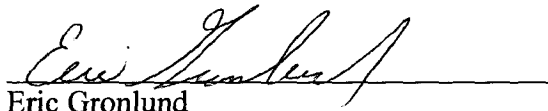
I hereby certify that on February 20, 2004, I have personally deposited with the United States mail at Pierre, South Dakota, first class postage, prepaid envelopes containing a Notice dated February 20, 2004, scheduling a hearing on the proposed qualification to Water Permit No. 6382-3, William St. Clair, addressed as stated below.

William St. Clair
37644 184th Street
Tulare SD 57476

Kevin Dettler
40168 173rd Street
Doland SD 57436

A copy of the Notice was sent Inter-office to:

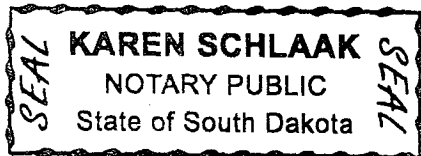
John Guhin, Deputy Attorney General
Diane Best, Assistant Attorney General

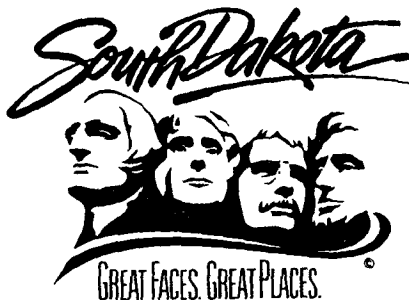

Eric Gronlund
Natural Resource Engineer
Water Rights Program

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 23rd day of February, 2004.


Karen Schlaak
Notary Public
My Commission expires April 1, 2007





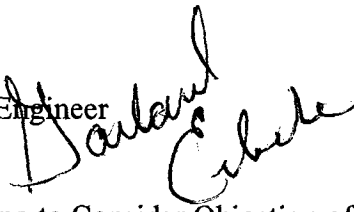
**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

February 26, 2004

NOTICE

TO: William St. Clair
37644 184th Street
Tulare SD 57476

FROM: Garland Erbele, Chief Engineer
Water Rights Program 

SUBJECT: Postponement of Hearing to Consider Objection of Proposed Qualification to
Water Permit No. 6382-3, William St. Clair

Due to a family matter, Mr. St. Clair has requested postponement of the March 3rd hearing to consider his objection to the proposed conditions to Water Permit No. 6382-3. Therefore, the hearing to consider Mr. St. Clair's objections is postponed and the hearing will not be held on March 3, 2004.

The hearing before the Water Management Board to consider objections to the proposed permit will now be scheduled for their May meeting. The May meeting will be held either May 5th - 6th or May 12th - 13th. Future notice will be provided of the date, time and location of the hearing before the Board.

Water Permit No. 6382-3 will not be issued until after the Board considers the objections raised to the proposed conditions. Therefore, irrigation of the NE ¼ of Section 29, T117N, R61W can not begin until this issue is resolved.

If you have any questions, please contact Eric Gronlund at (605) 773-3352.

c: John Guhin, Deputy Attorney General
Diane Best, Assistant Attorney General
Kevin Dettler, 40168 173rd Street, Doland SD 57436

CERTIFICATION

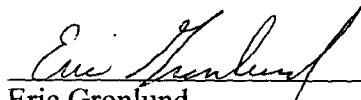
I hereby certify that on February 26, 2004, I have personally deposited with the United States mail at Pierre, South Dakota, first class postage, prepaid envelopes containing a Notice dated February 26, 2004, postponing a hearing on the proposed qualification to Water Permit No. 6382-3, William St. Clair, addressed as stated below.

William St. Clair
37644 184th Street
Tulare SD 57476

Kevin Dettler
40168 173rd Street
Doland SD 57436

A copy of the Notice was sent Inter-office to:

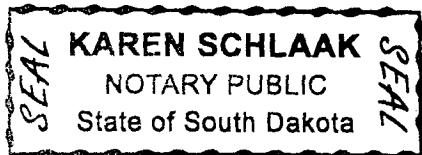
John Guhin, Deputy Attorney General
Diane Best, Assistant Attorney General


Eric Gronlund
Natural Resource Engineer
Water Rights Program

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 26th day of February, 2004.


Karen Schlaak
Notary Public
My Commission expires April 1, 2007





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

March 30, 2004

NOTICE

TO: William St. Clair
37644 184th Street
Tulare SD 57476

FROM: Garland Erbele, Chief Engineer
Water Rights Program *Garland Erbele*

SUBJECT: Scheduling Hearing to Consider Objection of Proposed Qualification to Water
Permit No. 6382-3, William St. Clair

The March 3rd hearing to consider the objection to the proposed conditions to Water Permit No. 6382-3 was postponed at your request.

The Water Management Board will now consider your objection of the proposed qualification to Water Permit No. 6382-3 on May 12, 2004, at 11:00 AM (CDT), in the Community Room, Chamber of Commerce Building, 800 West Dakota Avenue, Pierre, SD. The agenda time is an estimate and may be delayed due to prior agenda items.

Applicable provisions of the adopted findings of fact, conclusions of law and final decision and the February 26, 2004 notice will still apply at the May 12th hearing before the Water Management Board. This hearing may be an adversarial proceeding. Any party of record has the right to be present and to be represented by a lawyer. These and other due process rights will be forfeited if they are not exercised. Decisions of the Board may be appealed to the Circuit Court and State Supreme Court as provided by law.

The notice sent on February 26th stated the hearing would be scheduled for the May 5 -6, 2004 Board meeting, however, the Board has changed their meeting date to May 12, 2004.

Please contact Eric Gronlund at (605) 773-3352, if you have any questions.

c: Diane Best, Assistant Attorney General
Kevin Dettler, 40168 173rd Street, Doland SD 57436

CERTIFICATION

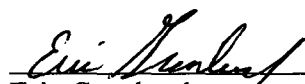
I hereby certify that on March 30, 2004, I have personally deposited with the United States mail at Pierre, South Dakota, first class postage, prepaid envelopes containing a Notice dated March 30, 2004, scheduling a hearing on the proposed qualification to Water Permit No. 6382-3, William St. Clair, addressed as stated below.

William St. Clair
37644 184th Street
Tulare SD 57476

Kevin Dettler
40168 173rd Street
Doland SD 57436

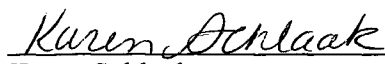
A copy of the Notice was sent Inter-office to:

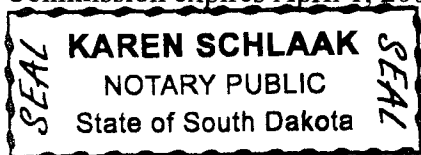
Diane Best, Assistant Attorney General


Eric Gronlund
Natural Resource Engineer
Water Rights Program

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 31st day of March, 2004.


Karen Schlaak
Notary Public
My Commission expires April 1, 2007



3/31/2004

RECEIVED

APR 02 2004

WATER RIGHTS
PROGRAM

TO: Eric Gronland
DENR.
Joe Foss Bldg.
523 East Capitol
Pierre, SD. 57501-3182

FROM: WM. F. St. Clair
37644 184th St.
Tulare, SD. 57476

Subject: A Proposal in lieu of the DENR'S desire to install water meters on
Permit No 6382-3 and Permit No.4586-3.

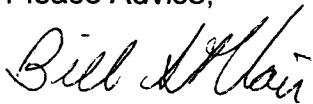
Hi Eric,

I had a meeting with Kevin Dettler on Monday to get his feeling on DENR's desire to install water meters to enable the use of permit # 6382-3 to go forward. His objection to DENR's qualification was immediate, just as mine was, and in the negative.

Of course we would like to use the system that we have both invested in, and Kevin suggested that I, as holder of the permits agree to this qualification: i.e., that only one well of the two wells may be pumped at one time, never both at the same time.

It seems to us, that this would be an automatic regulation, that would hold us to the intent of the DENR. The transfer of the 100 acres would go on as proposed and obviate the use of those irrigated acres under Permit 4586-3. It would be as if one well were being used on three circles. The appealing thing about our proposal is that it can be accomplished without a lot of extra equipment to install, keep up, and monitor.

Please Advise,



Bill St. Clair



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

April 29, 2004

NOTICE

TO: William St. Clair
37644 184th Street
Tulare SD 57476

FROM: Garland Erbele, Chief Engineer
Water Rights Program *Garland Erbele*

SUBJECT: Hearing to Consider Proposed Qualifications to Water Permit No. 6382-3,
William St. Clair

The Water Rights Program has received the March 31st proposal regarding Water Permit No. 6382-3 and Water Right No. 4586-3. Water Permit No. 6382-3 transfers 100 acres from Water Right No. 4586-3 to the NE ¼ of Section 29, T117N, R61W. The recent proposal states that the 1.7 cubic feet of water per second will be diverted from only one of the two wells at a time. Never will both wells be operated at the same time.

The proposal presented is acceptable to the Water Rights Program on a short term basis but presents concerns from the long term perspective. The Water Rights Program's concern stems from conflicts that will occur when land ownership changes at a future time. This is especially true if the quarter sections are sold to separate owners and the diversion rate then needs to be equitably divided between the two wells.

Enclosed is a revised draft of Permit No. 6382-3 and reissued Water Right No. 4586-3. The Chief Engineer's recommendation is that Water Permit No. 6382-3 be issued with a term limitation of five (5) years. The permit will be brought back before the Board when an acceptable long term solution is found or at the end of this five year period. Issuance of the permit with a term limitation will allow irrigation while a long term solution is sought. The Chief Engineer's recommendation is not final or binding on the Board. The Board may take other action based on the facts presented at the hearing. Please review the proposed conditions carefully.

The Water Management Board will consider the qualifications to Water Permit No. 6382-3 on May 12, 2004, at 11:00 AM (CDT), in the Community Room, Chamber of Commerce Building, 800 West Dakota Avenue, Pierre, SD. At this hearing you will be provided an opportunity to present testimony to the Board. The agenda time is an estimate and may be delayed due to prior agenda items.

Applicable provisions of the adopted findings of fact, conclusions of law and final decision and the February 26, 2004 notice will still apply at the May 12th hearing before the Water Management Board. This hearing may be an adversarial proceeding. Any party of record has the right to be present and to be represented by a lawyer. These and other due process rights will be forfeited if they are not exercised. Decisions of the Board may be appealed to the Circuit Court and State Supreme Court as provided by law.

Please contact Eric Gronlund at (605) 773-3352, if you have any questions.

Enclosure

c: Diane Best, Assistant Attorney General
Kevin Dettler, 40168 173rd Street, Doland SD 57436

DRAFT

SOUTH DAKOTA WATER PERMIT NO. 6382-3

Date of first receipt of application January 1, 2003.

The Water Management Board, approved Water Permit No. 6382-3 on December 3, 2003 to William St. Clair, 37644 184th Street, Tulare SD 57476 authorizing the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 6382-3 transfers 100 acres located in NE $\frac{1}{4}$ of Section 28-T117N-R61W from Water Right No. 4586-3 to lands located in the NE $\frac{1}{4}$ Section 29-T117N-R61W and authorizes use of a well (Tulare:East James Aquifer) located in the approximate center of the NE $\frac{1}{4}$ Section 29-T117N-R61W. This permit authorizes a diversion rate of 1.7 cfs from the well only at times when the well authorized by Water Right No. 4586-3 which is located in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 28-T117N-R61W is not being operated (see reissued Water License No. 4586-3 for description of this water right). Permit No. 6382-3 diminishes by 100 acres the 364 acres authorized by Water Right No. 4586-3.

Water Permit No. 6382-3 is being issued as set forth in the Water Management Board's Final Decision adopted December 3, 2003 and Mr. St. Clair's subsequent identification of the acreage to be transferred and alternating use of the two wells. These documents can be found in the Water Rights Program's administrative file for Permit No. 6382-3.

Water Right No. 4586-3 is reissued to reflect the reduction in the diversion rate and irrigated acres resulting by the approval and issuance of Water Permit No. 6382-3.

2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: April 1 – September 30.
3. The date from which applicant may claim right is December 17, 1980 (established by Water Right No. 4586-3).
4. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. Pursuant to SDCL 46-1-14, Permit No. 6382-3 is issued for a 5-year term to allow irrigation until a long term solution involving the diversion rate and volume is settled. This permit will be brought back before the Water Management Board upon the permit holder submitting of a long term solution or the expiration of the 5-year term. If the 5-year term is not deleted at the end of the term, the permit may either be cancelled or amended with a new term limitation. Permit No. 6382-3 may also be cancelled for nonconstruction, forfeiture, abandonment, or three permit violations pursuant to SDCL 46-1-12, 46-5-37, 46-5-37.1 and ARSD 74:02:01:37.

2. The well authorized by Water Permit No. 6382-3 may not be in use when the well authorized by Water Right No. 4586-3 is in operation. Operating both wells at the same time is a violation of this permit and will cause the permit to be brought before the Water Management Board for appropriate action pursuant to SDCL 46-1-12.
3. 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.
4. This permit is approved subject to the irrigation water use questionnaire being submitted each year.
5. The Water Management Board retains jurisdiction of Permit No. 6382-3 to settle disputes arising under the Final Decision.

WATER MANAGEMENT BOARD

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

_____ date



draft

STATE OF SOUTH DAKOTA
REISSUED
WATER LICENSE NO. 4586-3

(1) Lowell J Hofer was issued Water Right No. 4586-3, May 10, 1983 for a water right to divert 1.7 cubic feet of water per second (cfs) from groundwater (one well), Spink County, South Dakota for irrigation purposes. Water Right No. 4586-3, with a priority dates of August 18, 1976, March 4, 1977 and December 17, 1980 was issued to irrigate 364 acres located in the N ½ Section 28 and SW ¼ Section 21; all in T117N-R61W.

In November, 1990 the water right was transferred to William St. Clair, 37644 184th St, Tulare SD 57476.

Water Right No. 4586-3 is being reissued to reflect the reduction of irrigated acres and limitation on the use of the well resulting from the approval and issuance of Water Permit No. 6382-3.

(2) The water supply system has been completed and water applied to beneficial use in accordance with South Dakota State Law. Pursuant to South Dakota Codified Law 46-5-30.1, the holder and/or owner of Water Right No. 4586-3 is reissued a license, bearing priority dates of August 18, 1976 (NW ¼ Section 28), March 4, 1977 (SW ¼ Section 21) and December 17, 1980 (NE ¼ Section 28) to appropriate 1.70 cubic feet of water per second from groundwater (one well) to irrigate 264 acres.

The diversion point is located: 1,870 feet south and 100 feet east of the NW corner of Section 28-T117N-R61W (SW ¼ NW ¼). The acres authorized for irrigation are as follows:

All in T117N-R61W					
Section 28	NW ¼ NW ¼	15 acres	Section 21	NE ¼ SW ¼	33 acres
	NE ¼ NW ¼	38 acres		NW ¼ SW ¼	33 acres
	SW ¼ NW ¼	15 acres		SW ¼ SW ¼	33 acres
	SE ¼ NW ¼	36 acres		SE ¼ SW ¼	33 acres
Section 28	NW ¼ NE ¼	14 acres			
	SW ¼ NE ¼	14 acres			
Total 264 acres					

(3) This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Permit No. 4586-3 including the following now applicable qualifications:

- The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
- This Permit is approved subject to the irrigation water use questionnaire being submitted each year.
- The well authorized by reissued Water License No. 4586-3 may not be in use when the well authorized by Water Permit No. 6382-3 is in operation.

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

date



CERTIFICATION

I hereby certify that on April 29, 2004, I have personally deposited with the United States mail at Pierre, South Dakota, first class postage, prepaid envelopes containing a Notice dated April 29, 2004, scheduling a hearing on the proposed qualifications to Water Permit No. 6382-3, William St. Clair, addressed as stated below.

William St. Clair
37644 184th Street
Tulare SD 57476

Kevin Dettler
40168 173rd Street
Doland SD 57436

A copy of the Notice was sent Inter-office to:

Diane Best, Assistant Attorney General



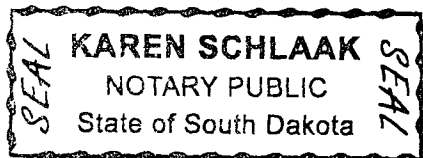
Eric Gronlund
Natural Resource Engineer
Water Rights Program

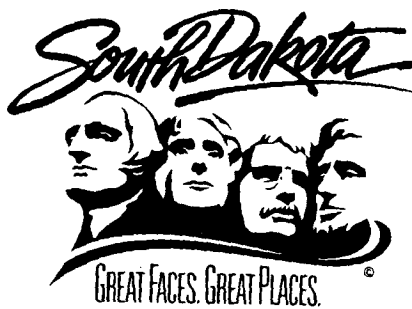
STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 30th day of April, 2004.



Karen Schlaak
Notary Public
My Commission expires April 1, 2007





DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

May 18, 2004

NOTICE

TO: William St. Clair
37644 184th Street
Tulare SD 57476

FROM: Garland Erbele, Chief Engineer
Water Rights Program *Garland Erbele*

SUBJECT: Issuance of Water Permit No. 6382-3 and Reissued Water Right No. 4586-3,
William St. Clair

Enclosed is Water Permit No. 6382-3 and reissued Water Right No. 4586-3. On May 12th, the Water Management Board affirmed the issuance of these documents authorizing the irrigation of the NE ¼ Section 29 and W ½ Section 28, T117N, R61W.

You will be contacted by a Water Rights staff person in the future to schedule an on-site investigation for the purpose of licensing Water Permit No. 6382-3

Please contact Eric Gronlund at (605) 773-3352, if you have any questions.

c: Diane Best, Assistant Attorney General
Kevin Dettler, 40168 173rd Street, Doland SD 57436

CERTIFICATION

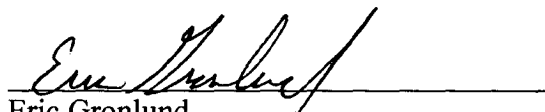
I hereby certify that on May 18, 2004, I have personally deposited with the United States mail at Pierre, South Dakota, first class postage, prepaid envelopes containing a Notice dated May 18, 2004, regarding issuance of Water Permit No. 6382-3 and reissued Water Right No. 4586-3, William St. Clair, addressed as stated below.

William St. Clair
37644 184th Street
Tulare SD 57476

Kevin Dettler
40168 173rd Street
Doland SD 57436

A copy of the Notice was sent Inter-office to:

Diane Best, Assistant Attorney General



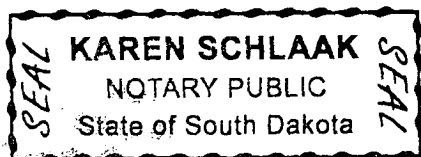
Eric Gronlund
Natural Resource Engineer
Water Rights Program

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 19th day of May, 2004.



Karen Schlaak
Notary Public
My Commission expires April 1, 2007



6382-3

Water Rights Program - DENR
Conversation File Documentation

NAME OF PERSON OR FILE: Water Permit No. 6382-3, William St. Clair

ADDRESS: COUNTY: Spink

DATE: July 25, 2006 TELEPHONE:

RE: Amendment to Water Permit

COMMENTS:

See Water Permit No. 6675-3 which by its issuance amend conditions on Water Permit No. 6382-3. Specifically,

Deleted the 5 year term set forth in Qualification No. 1

Deleted Qualification No. 2 prohibiting operation of well authorized by No. 4586-3 and the well authorized by NO. 6382-3 at the same time.

When licensing occurs Water Permit Nos 6382-3 and 6675-3 should be incorporated into one water license.

NAME: Eric Bonland



**DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES**

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



SEP 04 2014

6382-3
6675-3

William St Clair
37644 184th St
Tulare SD 57476

Dear Mr. St Clair:

Enclosed is Water License No. 6675-3. This is the final water right document completing your process of obtaining a Water Right. Included with your license is a map prepared by the staff engineer who conducted the field investigation.

For your information SDCL 46-6-27 requires that if the owner of an existing well, such as the well authorized by Water Right No. 6675-3, constructs a replacement well and does not plan to use the old well, the old well is considered abandoned and must be plugged. Also, any well that is being used or is not considered abandoned must be valved and controlled, if flowing, or sealed and capped so that no leaking occurs either underground or at the surface.

The applicable portions of Water Permit No. 6382-3 have been incorporated into Water License No. 6675-3. As long as you use the water beneficially, as stated in the Water License, the State Water Laws provide that you have a continuing right to use the water. If you have any questions, please contact our office.

Sincerely,

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

enclosures

NOTE: The investigation found your irrigation system is capable of diverting 1.56 cubic feet of water per second (cfs) which is equivalent to approximately 700 gallons per minute. The water license is limited to 1.43 cfs (equivalent to 642 gpm) based on the original permitted diversion rate. **Diversion of water under this water license is limited to 1.43 cfs.**