

WATER PERMIT NO. 6245-3

Name of Applicant: Shamrock Colony Hutterian Brethren

Address: 1908 413th Ave, Carpenter SD 57322-8200 Phone: 605 352-5647

Amount of Water Claimed: 0.167 cfs (75 gpm) Total Acres: NA

Source of Water Supply: groundwater (one well)

Water to be used for: commercial County: Beadle

Type of Waste Disposal System: P & S approved by DENR

Location: 3 miles west of Carpenter

PRIORITY Date Received: 12-18-2000 Fee: \$150

Corrected Application Received:: Period of Annual Use: January 1 – December 31

Remarks: swine feeding operation

Diversion Point: SE ¼ SE ¼ Sec 6-T113N-R59W

Land to be Irrigated: NA

Depth of Well: 900

Well Driller: :

Remarks: well not drilled yet

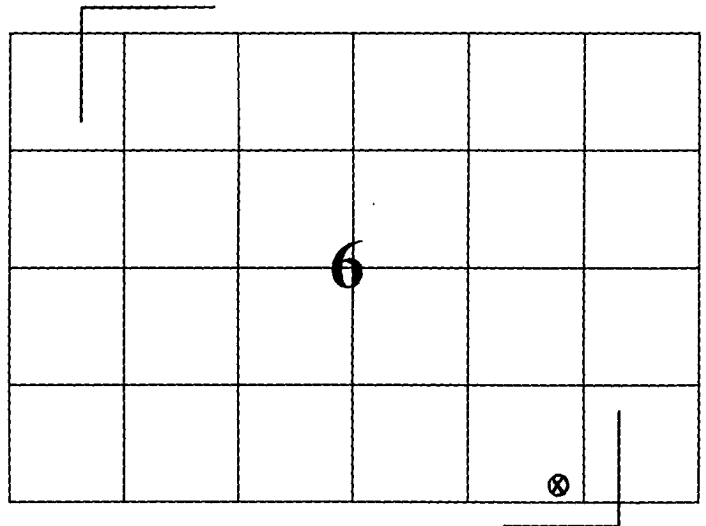
Type of Map: plat

Prepared by: David L Johnson, PE

Reviewed and the Number Assigned on: 12-18-2000

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____



SOUTH DAKOTA
WATER PERMIT NO. 6245-3

Date of first receipt of application December 18, 2000.

The Water Management Board approved Water Permit Application No. 6245-3 on March 7, 2001 for Shamrock Colony Hutterian Brethren, 1908 413th Ave, Carpenter SD 57322-8200 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. 6245-3 appropriates 0.167 cubic feet of water per second (75 gallons per minute) from one well (Dakota Formation) approximately 900 feet deep located in the SE ¼ SE ¼ Section 6-T113N-R59W.
2. The water appropriated shall be used for the purpose of supplying water for commercial use in a swine feeding facility and may not exceed the amount of water needed for beneficial use.
3. The water is to be used during the following described annual period: January 1 – December 31.
4. The date from which applicant may claim right is December 18, 2000.
5. One-fifth of the construction is to be completed on or before September 7, 2003.
6. All construction is to be completed on or before March 7, 2006.
7. Water is to be put to beneficial use on or before March 7, 2010.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. Permit No. 6245-3 is subject to compliance with requirements of the Department's General Water Pollution Control Permit for concentrated swine feeding operations.
3. The well authorized by Permit No. 6245-3 shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
4. The well approved under this Permit shall be valved and the flow reduced to the amount needed or to a minimum when not being used. If this well is abandoned or the Permit cancelled, the well must be plugged in accordance with Water Management Board Rules, Chapter 74:02:04.

(continued)

5. Permit No. 6245-3 is subject to compliance with the existing and applicable Water Management Board Rules:

- a) Chapter 74:54:01 Ground Water Quality Standards,
- b) Chapter 74:54:02 Ground Water Discharge Permit,
- c) Chapter 74:51:01 Surface Water Quality Standards,
- d) Chapter 74:51:02 Uses Assigned to Lakes,
- e) Chapter 74:51:03 Uses Assigned to Streams, and
- f) Chapter 74:52:01 through 74:52:11 Surface Water Discharge Provisions.

WATER MANAGEMENT BOARD

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

APR 04 2001

date



FORM 2: Application for uses other than irrigation
(type or print)

Mail to: Water Rights Program Joe Foss Building 523 E. Capitol Pierre, SD 57501-3181 (605) 773-3352	No. <u>6245-3</u>	(office use only) Hydrologic Unit <u>10160006</u>
	Basin <u>James River</u>	
	Newspaper <u>The Plainsman, Huron SD 57350</u>	



Application For Permit To Appropriate Water Within The State Of South Dakota

Check use(s) of water:

☐ Municipal	☐ Suburban Housing	☐ Recreational	☐ Institutional
☐ Rural Water System	☒ Commercial	☐ Fish & Wildlife	☐ Geothermal Heat
☐ Domestic (over 18 gpm)	☐ Industrial	☐ Other	

Type of Application: ☒ New ☐ Vested Right (Use predates Mar 2, 1955) ☐ Future Use Reservation
(check one) Place to Beneficial Use Water Reserved by Future Use Permit No. _____
Amendment/Correction to Permit No. _____

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

1. Name of Applicant Shamrock Colony Hutterian Brethren Phone (605) 352-5647
(check one) ☒ Owner ☐ Tenant/lessee
Mailing Address 1908 413th Avenue, Carpenter State SD 57322-8200
(Street, RR. or Box) (Zip Code)

2. Amount of water claimed 0.167 *CFS or 75 **GPM ***AF
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply Dakota Formation

4. Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) SE 1/4 of SE 1/4
of Section 6, T113N, R59W, Beadle County, SD
County Beadle

5. County or counties where water will be used Beadle

6. Annual period during which water is to be used year-round Jan 1 - Dec 31

7. Give a description of the project. When available include any preliminary engineering report or other reports or information that will help explain the project. (Attach sheet if more space is needed) The proposed well will be used to supply water to the applicant's confined swine feeding operation, presently under construction.

STATE OF SOUTH DAKOTA)
County of Beadle) SS

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, Oliver Waldner, 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.

Signed Oliver Waldner

Subscribed and sworn to before me this 13 day of December 2000

Jama R. New
Notary Public

Supplemental Information

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 8 1/4" to 250' +/- Depth up to 900'
6" below 250' +/-
- b) Casing Type PVC Diameter 5" to 250' +/- Thickness _____
3" below 250' +/-
- c) Screen Type PVC Diameter 3" Thickness _____
- d) Gravel Pack up to 1 1/2" Length of Gravel Pack 80' estimated
- e) Depth to Top of Water Bearing Material 800 +/-
- f) Depth to Water (ground surface to water level) estimated 30'
- g) Distance to nearest existing domestic well:
- On applicants property 1000' On property owned by others 6300'

2. Wastewater Disposal System Information

- a) Type of System (i.e. septic tank, drain field) septic tank / drainfield proposed
- b) System Capacity (gallons) 1,000 gallons Year Constructed n/a
- c) Connected to the City of n/a Sanitary System _____

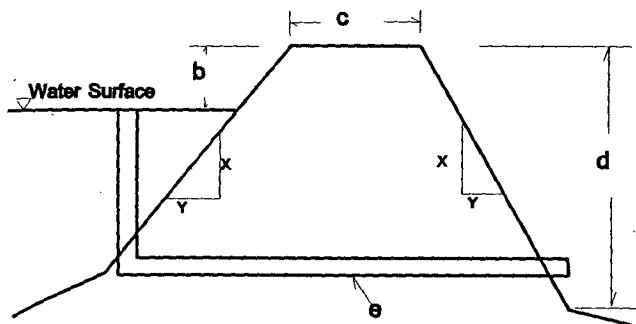
3. Dugout Information

- 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

SOUTH DAKOTA WATER WELL COMPLETION REPORT

6245-3
07-92Location SE 1/4 SE 1/4 Sec 6 Twp 113 Rg 59County Bend

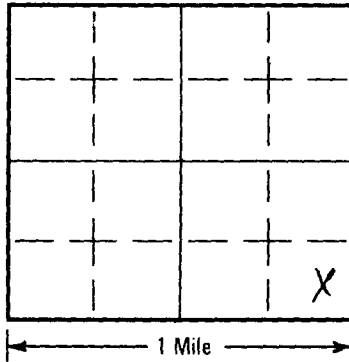
North

Please mark well location with an "X"

W

E

Well Completion Date

6/6/01

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? 100 ft. from Septic (identify source).

PROPOSED USE:

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

METHOD OF DRILLING:

RotaryCASING DATA: ☐ Steel ☒ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT <u>5</u>	IN <u>5</u>	FT <u>0</u>	FT <u>230</u>	IN <u>8 3/4</u>
LB/FT <u>3</u>	IN <u>3</u>	FT <u>230</u>	FT <u>810</u>	IN <u>6 1/4</u>
LB/FT _____	IN _____	FT _____	FT _____	IN _____

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Cement</u>	<u>5</u>	lb./gal _____	ft. <u>0</u>	ft. <u>20</u>
<u>St-clay</u>	<u>23</u>	lb./gal _____	ft. <u>20</u>	ft. <u>750</u>

Describe grouting procedure _____

Up to 750 ft.SCREEN: ☐ Perforated pipe ☒ ManufacturedDiameter 3 IN Length 70 FEETMaterial PVCSlot Size C16 Set From 810 Feet to 880 Feet

Other information _____

Gravel PackedWAS A PACKER OR SEAL USED? ☐ YES ☐ NO

If so, what material? _____

Describe packer(s) and location? _____

DISINFECTION: Was well disinfected upon completion?

☒ YES, How: _____Bellets

Laboratory sent to for water quality analysis _____

NO, Why Not? _____

Well Owner: Shomrock Colony

Business Name: _____

Address: 40068 Horn Colony Ln
Horn SD 57350

WELL LOG:

DEPTH

FORMATION	FROM	TO
<u>yellow clay</u>	<u>0</u>	<u>15</u>
<u>shale</u>	<u>15</u>	<u>280</u>
<u>chalk</u>	<u>280</u>	<u>340</u>
<u>shale</u>	<u>340</u>	<u>812</u>
<u>sand</u>	<u>812</u>	<u>880</u>

STATIC WATER LEVEL 55 Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☒ Pumped Describe: 90 +☐ Bailed _____☐ Other Air Compressor

Pumping Level Below Land Surface

_____ ft. After _____ Hrs. pumped _____ GPM

_____ ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate _____ GPM

REMARKS

This well was drilled under license # 440

And this report is true and accurate.

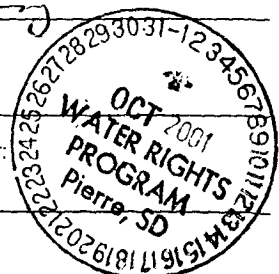
Drilling firm Pullman Drilling

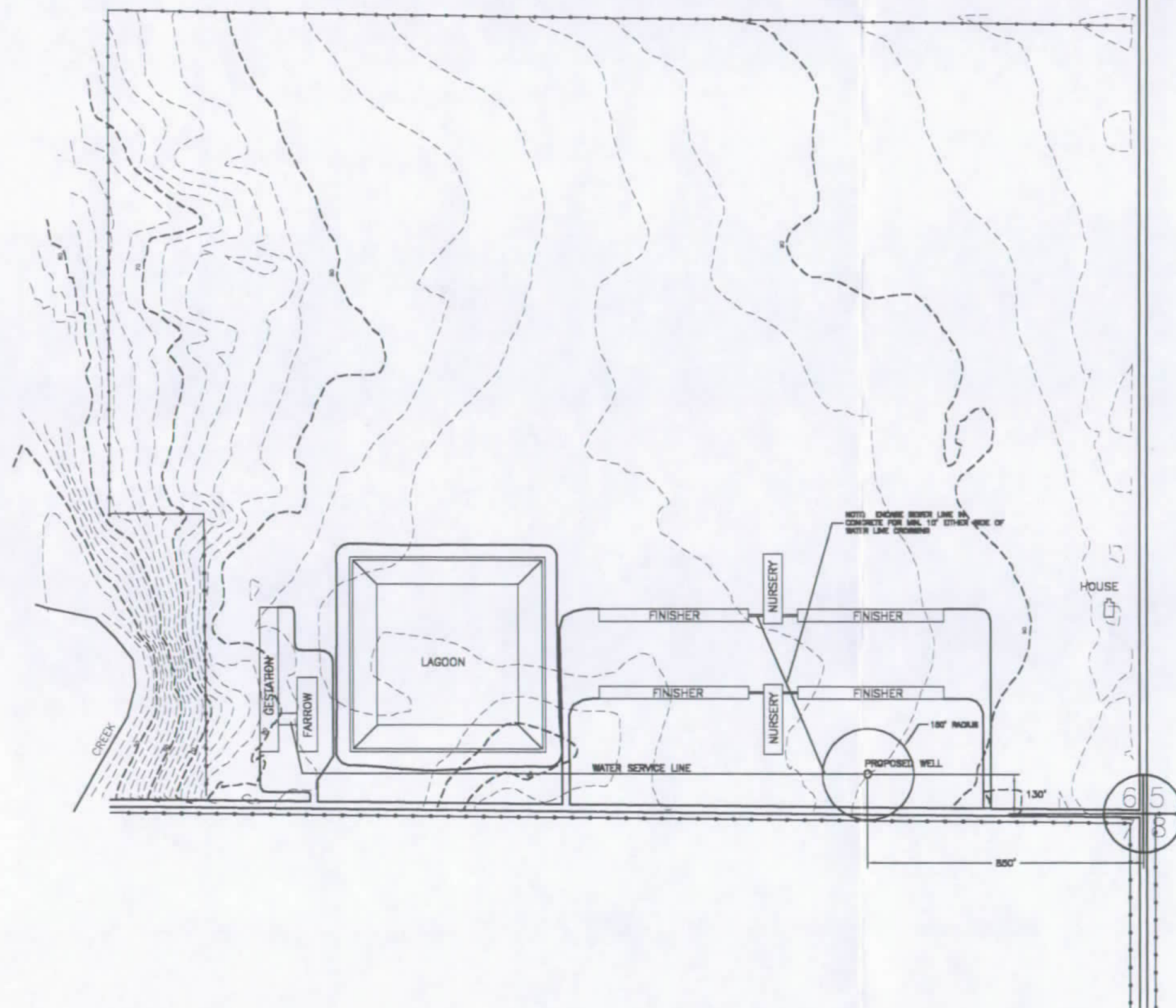
Signature of License Representative: _____

P. S. Kraft

Signature of Well Owner or Equitable Property Holder: _____

Date: _____





	SITE MAP		REV.	DATE	DESCRIPTION	BY	CHKD
	SHAMROCK COLONY AWMS		DATE:	9/18/00	DRAWN: BF	CHECKED: DLJ	
JOB NO: 98113		DAKOTA ENVIRONMENTAL CONSULTANTS INCORPORATED					
SCALE: 1"=400'		P.O. BOX 636 HURON, SD 57350 605-352-5610					
DWG: 2							

6245-3

RECEIPT

Water Rights Program

South Dakota Department of Environment and Natural Resources

N2 416716

Pierre, December 18, 2000

RECEIVED OF Shamrock Hutterian Brethren Inc., PO Box 158, Carpenter SD 57322
the following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. <u>6245-3</u> to Appropriate Water, to construct and to put water to beneficial use _____	150	00
Fee for Application for Permit No. _____ to Appropriate Water, for Future Use _____		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>6245-3</u> _____	50	00
Fee for Filing Transfer Form _____		
Fee for Filing Extension Request _____		
Fee for _____ _____ _____		
(Any Other Work Provided by Law)	Total	200 00

By

Chief Engineer

Garland Eide

KS



DAKOTA ENVIRONMENTAL, INC.

Engineers...Hydrogeologists...Geologists...Remedial Specialists

November 2, 2000

Jim Goodman
SD DENR Water Rights
523 E. Capitol
Pierre, SD 57501-3181



Re: Animal Waste Management System
Shamrock Colony
Beadle County, SD
DE Project No. 98113

Dear Mr. Goodman:

We are writing this letter on behalf of Shamrock Colony in regard to installation of a well at the above location. Shamrock Colony is currently constructing a large swine production unit in the SE ¼ of Section 6, T113N, R59W, in Beadle County.

When this production unit is completed (roughly one year), water use will exceed the threshold required for a water rights permit. Dakota Environmental is in the process of preparing the formal application for this permit. However, due to a lack of water service at the site, the colony wishes to construct the well as soon as possible so water is available for construction activities.

It is expected that 75 to 80 gallons per minute will be applied for in the formal application. Water use from the proposed well will not approach the water rights permit threshold level during construction. The proposed well is expected to be drilled into the Dakota Formation and will be located in the SW ¼ of the SW ¼ of the SE ¼ of the SE ¼ of Section 6.

On behalf of Shamrock Colony, we request your permission to construct the proposed well while application for the water rights permit is being reviewed. Our client is aware that the well will be installed at their own risk, with no guarantee of approval of the permit.

If you have any other questions or concerns regarding this project, please let us know.

Sincerely,

Brian Friedrichsen
Staff Engineer



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181
www.state.sd.us/denr

November 3, 2000

Brian Friedrichsen
Dakota Environmental, Inc
PO Box 636
Huron, SD 57350

Dear Mr. Friedrichsen:

As requested, pursuant to South Dakota Well Construction Standard 74:02:04:21, you are authorized to construct a test well for Shamrock Colony in Beadle County prior to approval of a water permit. The test well is to be completed into the Dakota Aquifer in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 6, T113N-R59W. The test well must be constructed in accordance with the SD Well Construction Standards. Any test holes that are abandoned must be plugged pursuant to the SD Well Construction Standards.

Very truly yours,

JAMES A. GOODMAN, P.E.
Natural Resources Engineer
For GARLAND ERBELE, Chief Engineer
Water Rights Program
(605) 773-3352



DAKOTA ENVIRONMENTAL, INC.

Engineers...Hydrogeologists...Geologists...Remedial Specialists

December 15, 2000

Eric Gronlund
Natural Resources Engineer
Department of Environment and Natural Resources
Water Rights Program
523 E. Capitol
Pierre, SD 57501-3181

Re: Application for Water Permit
Shamrock Colony
Beadle County, SD
DE Project No. 98113

Dear Mr. Gronlund:

Transmitted herewith is an application to appropriate water from the Dakota Aquifer on behalf of Shamrock Colony in Beadle County. The colony is currently constructing a large swine production unit in the SE ¼ of Section 6, T113N, R59W, in Beadle County.

Water for this operation will be supplied by a proposed well drilled into the Dakota Aquifer. The water will be used for stock watering, waste management system operation, and related purposes in conjunction with the swine feeding operation. Plans and Specifications for the facility manure management system have been reviewed and approved by the Department of Environment and Natural Resources Surface Water Quality Program.

The permit application has been signed by Mr. Alvin Waldner, Secretary of Huron Colony. Mr. Waldner is one of several executives of Riverside, Huron, and Glendale Colonies that are cooperating to form Shamrock Colony. Also enclosed is a check for \$200.00 for filing and inspection/licensing fees. If there are any questions relative to this application, please contact our office.

Sincerely,

Brian Friedrichsen
Staff Engineer

cc: John Waldner, Riverside Colony
Alvin Waldner, Huron Colony



WATER PERMIT APPLICATION NO. 6245-3
SHAMROCK COLONY HUTTERIAN BRETHREN
JANUARY 24, 2001

Water Permit Application No. 6245-3 proposes to appropriate 0.167 cubic feet of water per second (75 gallons per minute) from one well (Dakota Aquifer), 900 feet deep located in the SE¼ SE¼ Section 6, T113N-R59W, in Beadle County.

AQUIFER: Dakota Sandstone (DKOT)

AQUIFER CHARACTERISTICS:

The Dakota Formation consists of interbedded sand, sandstone, clay and sandy clay, approximately 145 feet thick in this area (Schoon, 1971). The aquifer consists of permeable beds of sandstone that are over 50 feet thick (Water Rights, 2001_a). The Dakota underlies 1,250 square miles of Beadle County and contains an estimated 18 million acre-feet of recoverable water in storage in the county (Hedges, 1982). The lithology of the Dakota is quite variable both laterally and vertically, and it has been postulated that the explanation for this is that the Dakota was deposited in a fluvial environment. The top of the Dakota aquifer is estimated to be approximately 850 feet below grade (Howells, 1968) and the static water level is expected to be approximately 60 feet below grade at this site (Water Rights, 2001_a).

The Water Rights Program does not monitor any observation wells completed into the Dakota in this immediate area. The nearest Water Rights' Observation Well that is completed into the Dakota Aquifer is located approximately 45 miles southwest of the diversion point proposed by this application. (HD-87A)

DISCUSSION:

SDCL 46-6-3.1 requires that an application to appropriate groundwater may not be approved if, "according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of the water to the groundwater source". Average annual recharge to the Dakota Aquifer has not been quantified and it is not expected to be ascertained in the near future. The best information available to evaluate development as it relates to recharge, is historical records and data from observation wells. The difference between withdrawal from an aquifer and recharge is reflected by the water level of the aquifer. If the water level of an aquifer continues to decline, it may suggest that withdrawals exceed recharge. However, withdrawals from a confined aquifer such as the Dakota, affect water levels over a relatively large area. Water levels will continue to decline as the result of withdrawals until a dynamic equilibrium is established and water levels stabilize.

Since the first wells were completed into the Dakota Aquifer there has been a pronounced decline in the artesian head. Howells (1968) states "The piezometric surface of water in the Dakota has declined as a result of development. When development began, flowing wells could be obtained in

all but 2 or 3 square miles in the southwestern corner of the county.” Currently, Dakota wells will not flow in an about 125 square miles of Beadle County (Howells, 1968)

The Water Rights Program monitors a number of observation wells that are completed into the Dakota Aquifer (Water Rights, 2001_b). An observation well in Hand County (approximately 45 miles southwest of this site) identifies an average decline of head pressure between 1988 and 2000 of approximately 1.1 feet per year. See figure 1.

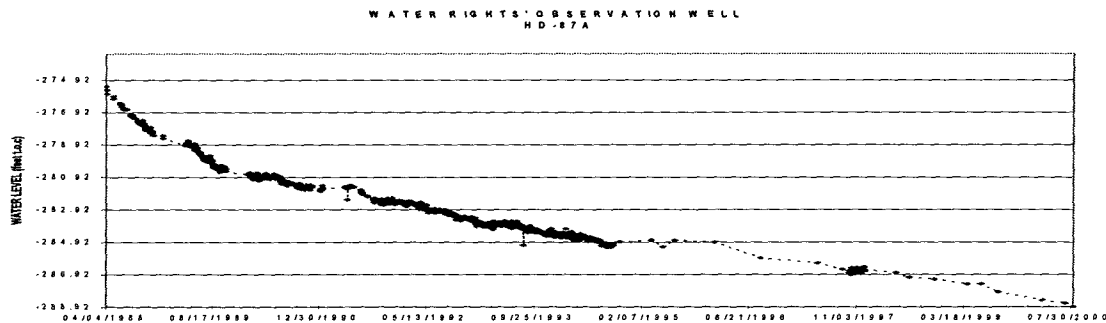


Figure 1. HD-87A Hydrograph

An observation well in Brule County, approximately 90 miles south west of this well site, identifies an average decline of head pressure of approximately 0.4 feet per year between 1983 and 2000. See Figure 2.

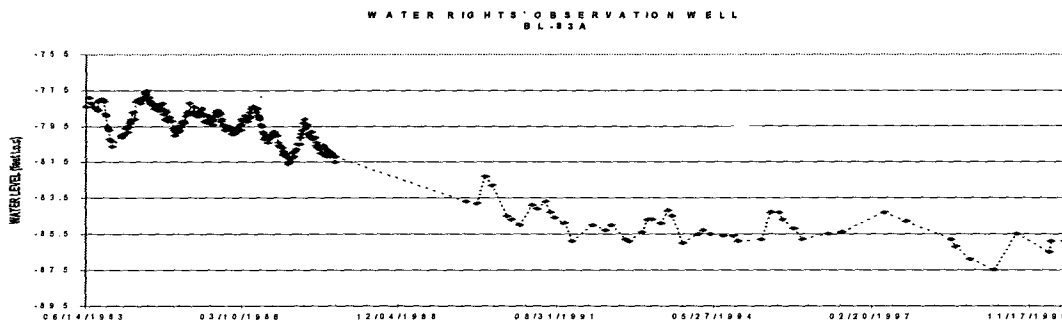


Figure 2. BL-83A Hydrograph

The primary reason for declines in the Dakota Formation head pressure is due to water being discharged without beneficial use through uncontrolled flowing wells. The casings for many of the uncontrolled flowing Dakota wells have deteriorated or no longer exist and many such wells are not visible at the ground surface. Discharges from these wells are to either groundwater formations above the Dakota or to the surface at various distances from the original well casing. Such discharges can not be quantified, and most can not be controlled. The Water Management Board and the Water Rights Program are actively enforcing the statutes to require uncontrolled flowing wells to be controlled or plugged where practical.

In theory, the Dakota Aquifer head pressure is stabilizing relative to withdrawals and discharges. Examination of figures 1 and 2 indicate that the rate of decline of the potentiometric surface has decreased during the period of record and the water level may be approaching equilibrium. Water level measurements taken from the Water Rights' Observation Well in Edmunds County, indicate

that the head pressure may actually be recovering since the late 1980's with the advent of rural water systems replacing the Dakota aquifer as water supplies, see figure 3.

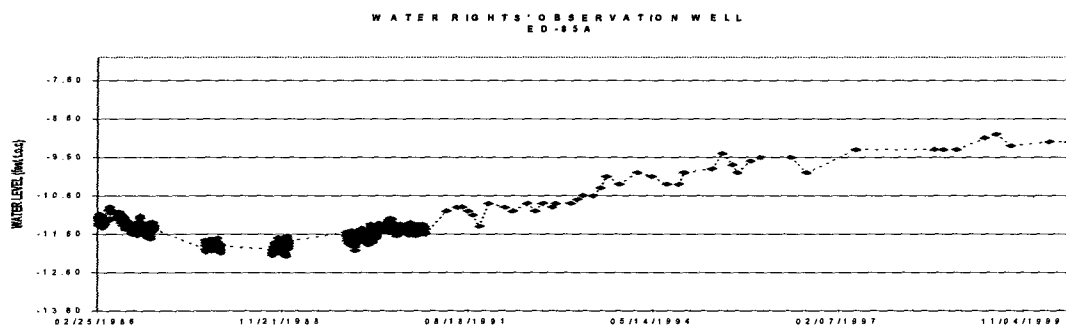


Figure 3. ED-85A Hydrograph

Although SDCL 46-6-3.1 does not allow “mining” of an aquifer, which would be evidenced by declining water levels; SDCL 46-6-6.1 does not require the artesian head pressure to be protected. However, the Courts have determined that the Board must consider and balance the effect of a limitation of a loss of artesian head pressure as one of the factors under the public interest determination.

The quantity or volume of water in the Dakota Aquifer that is related to head pressure is only a small percentage of the total water in storage. The quantity of water represented by the decline in head pressure is a fraction of the small percentage of water related to head pressure. Denial of this application will not preserve the head pressure, because head pressure declines are primarily due to discharges from uncontrollable flowing wells and not due to beneficial use of Dakota Aquifer water. In fact, additional appropriations for beneficial use should serve to lessen wasteful discharges.

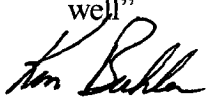
EXISTING WATER RIGHTS:

The Water Rights Program has record of several domestic wells in this area that are completed into the Dakota aquifer (Water Rights, 2001_a). In addition, there are 172 Water Rights/Permits appropriating water from the Dakota aquifer in South Dakota (Water Rights, 2001_c), 20 of these appropriations are from Beadle County. There are only seven Dakota aquifer Water Rights/Permits within 20 miles of this proposed well site. The nearest Dakota aquifer appropriation, Water Permit No. 5965-3, Rodney Hofer, is located approximately five miles northeast of this well site. The next nearest Water Rights/Permits are over ten miles from this well site. The distances between wells, and the relatively low diversion rate proposed by this application (75 gpm), should minimize well interference so that existing rights will not be adversely affected.

CONCLUSIONS:

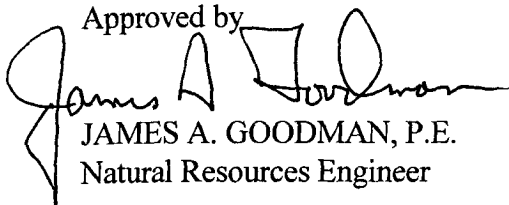
1. The Dakota Aquifer is a viable aquifer in this area.
2. The average annual recharge to the Dakota Formation has not been quantified and it is not expected to be ascertained in the near future. The best information available to determine the availability of unappropriated water is historical data and observation well records.

3. Water levels (head pressure) have declined in the Dakota Aquifer. However, whether withdrawals exceed the average estimated annual recharge can not be determined based solely upon a decline in head pressure.
4. In theory, the Dakota Formation head pressure is stabilizing relative to withdrawals and recharge.
5. Each new diversion from the Dakota will theoretically cause an additional effect on the head pressure of the aquifer. The affects of the withdrawal proposed by this application upon the Dakota Aquifer head pressure will not have a significant affect upon the decline or stabilization of head pressure in the Dakota Aquifer.
6. The Water Management Board is not required to protect artesian head pressure as a means of diversion. However, the Board must consider and balance the effect of a limitation or a loss of artesian head pressure as one of the factors under the public interest determination.
7. The principal reason for declines in the Dakota Formation head pressure is due to water being discharged without beneficial use through uncontrolled flowing wells. Denial of this application will not preserve the head pressure. In fact, additional appropriations for beneficial use should serve to lessen wasteful discharges from the aquifer.
8. Any well constructed for this permit must be constructed in accordance with SD Well Construction Standard 74:02:04:28. The alternative well construction requirement described in SD Well Construction Standard 74:02:04:35 is not acceptable for this water use.
9. Plans and Specifications for this facility must be approved by the Division of Environmental Services.
10. It may be necessary for the applicant to complete a second well for this facility as a "standby well"



KEN BUHLER
Natural Resources Engineer

Approved by



JAMES A. GOODMAN, P.E.
Natural Resources Engineer

REFERENCES:

Water Rights Program, 2001, "Domestic Well Logs", SD DENR-Water Rights Program, Joe Foss Building, Pierre, SD, 57501

Water Rights Program, 2001_b, "Observation Well Files", SD DENR-Water Rights Program, Joe Foss Building, Pierre, SD, 57501

Water Rights Program, 2001_c, "Water Permit Files", SD DENR-Water Rights Program, Joe Foss Building, Pierre, SD, 57501

Hedges, L.S., S.Burch, S.Iles, R.Barrari, R.Schoon, 1982, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, prepared for US Army Corps of Engineers, Contract DACW 45-80-C-0185, SD Geological Survey, Vermillion SD

Howells, L.W., Stephens, J.C., 1968, Geology and Water Resources of Beadle County, South Dakota, South Dakota Geological Survey Bulletin 18, Part II: Water Resources, Vermillion, South Dakota,

Schoon, R.A., 1971, Geology and Hydrology of the Dakota Formation in South Dakota, Report of Investigations No. 104, SD Geological Survey, Vermillion, SD



**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. 6245-3, Shamrock Colony Hutterian Brethren**

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. 6245-3, Shamrock Colony Hutterian Brethren, c/o Alvin Waldner, 1908 413th Avenue, Carpenter SD 57322-8200..

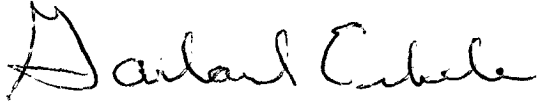
The Chief Engineer is recommending APPROVAL of Application No. 6245-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. Permit No. 6245-3 is subject to compliance with requirements of the Department's General Water Pollution Control Permit for concentrated swine feeding operations.
3. The well authorized by Permit No. 6245-3 shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
4. The well approved under this Permit shall be valved and the flow reduced to the amount needed or to a minimum when not being used. If this well is abandoned or the Permit cancelled, the well must be plugged in accordance with Water Management Board Rules, Chapter 74:02:04.

5. Permit No. 6245-3 is subject to compliance with the existing and applicable Water Management Board Rules:

- a) Chapter 74:54:01 Ground Water Quality Standards,
- b) Chapter 74:54:02 Ground Water Discharge Permit,
- c) Chapter 74:51:01 Surface Water Quality Standards,
- d) Chapter 74:51:02 Uses Assigned to Lakes,
- e) Chapter 74:51:03 Uses Assigned to Streams, and
- f) Chapter 74:52:01 through 74:52:11 Surface Water Discharge Provisions.

See report on application for additional information.

A handwritten signature in black ink, appearing to read "Garland Erbele". The signature is fluid and cursive, with the first name "Garland" being more prominent than the last name "Erbele".

Garland Erbele, Chief Engineer

2/2/01



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

February 2, 2001

The Plainsman
PO Box 1278
Huron, SD 57350-1278

ATTENTION: Legal Public Notice

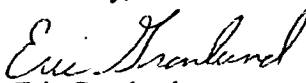
Enclosed is a Notice of Hearing on Application No. 6245-3 to Appropriate Water to be published twice. Please publish the first notice on February 7, 2001 with the second publication 7 days later.

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 Shamrock Colony Hutterian Brethren, 1908 413th Avenue, Carpenter, SD 57322-8200 (Ph # 605-352-5647).

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. 6245-3

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

Date _____

We are in receipt of your letter of February 2, 2001 enclosing Notice of Hearing to Appropriate Water by Application No. 6245-3 which was first published in our issue of _____. **ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.**

Name

Newspaper



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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.

February 2, 2001

Alvin Waldner
Shamrock Colony Hutterian Brethren
1908 413th Ave.
Carpenter, SD 57322-8200

Dear Mr. Waldner:

Water Permit Application No. 6245-3 for commercial 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 Plainsman printed at Huron, SD 57350-1278, SD (Ph # 605-352-6401). For your information, a copy of the notice, the recommendation of the Chief Engineer and a report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspaper to authorize publication of your Notice of Hearing and to arrange for payment. Early contact with the paper can eliminate delays. 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 been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the application.

Sincerely,

Eric Gronlund
Natural Resources Engineer
(605) 773-3352

enclosures

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

Instruction to Newspaper - Publish first Notice on February 7, 2001 with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF HEARING on Application No. 6245-3 to Appropriate Water

Notice is given that Shamrock Colony Hutterian Brethren, c/o Alvin Waldner, 1908 413th Ave, Carpenter SD 57322-8200 has filed an application for a water permit to appropriate 0.167 cubic feet of water per second (75 gallons per minute) from one well (Dakota Formation) approximately 900 feet deep located in the SE ¼ SE ¼ Section 6-T113N-R59W. The water is for commercial use in a swine feeding facility.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 6245-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest.

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 February 26, 2001. 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 10:00 A.M. , March 7, 2001 in the Mathews 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 March 7, 2001 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 February 26, 2001.

Any hearing will be an adversary 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 February 26, 2001, 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.

PRINTER'S AFFIDAVIT

STATE OF SOUTH DAKOTA,
COUNTY OF BEADLE: ss.

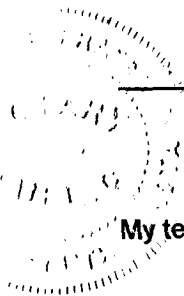
I, Cheri Bjorke, being duly sworn on oath, say that THE PLAINSMAN is a daily paper published at Huron, Beadle County, South Dakota, and that said newspaper has a bona fide circulation of at least 250 copies daily; that said newspaper has been published within said county for fifty-two consecutive weeks immediately prior to this date, that said newspaper is printed in whole or in part, in an office maintained at said place of publication; that I am Legal Advertising Coordinator of said newspaper and know the facts herein state. The annexed notice headed:

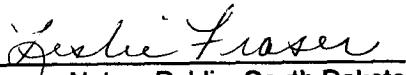
Shamrock Colony Hutterian Brethren, Notice of Hearing
on Application No. 6245-3 on Appropriate Water

was published for two days, once each week, on the same day in said newspaper, and not in any supplement of the said newspaper, the first publication was on the 7th day of February, 2001, and the last publication on the 14th day of February, 2001. That the full amount of the fee charged for publishing the same, to wit One Hundred Twenty and 52/100 Dollars inures to the benefit of the publisher of said newspaper; that no agreement or understanding for the division thereof has been made with any other person, and that no part thereof has been agreed to be paid to any person whomsoever.



Subscribed and sworn to before me this 14th day of
February, 2001.




Notary Public, South Dakota

My term expires 7/15/2004

Legal # 47

F.P. 2/7/01 L.P. 2/14/01
**NOTICE OF HEARING ON
APPLICATION NO. 6245-3 TO
APPROPRIATE WATER**
Notice is given that Shamrock
Colony Hutterian Brethren, c/o
Alvin Waldner, 1908 413th Ave,

Carpenter, SD 57322-8200 has filed an application for a water permit to appropriate 0.167 cubic feet of water per second (75 gallons per minute) from one well (Dakota Formation) approximately 900 feet deep located in the SE 1/4 SE 1/4 Section 6-T113N-R59W. The water is for commercial use in a swine feeding facility.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 6245-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest.

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 57504 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by February 26, 2001. 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 10:00 AM, March 7, 2001 in the Mathews 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 March 7, 2001 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 February 26, 2001.

Any hearing will be an adversary 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 February 26, 2001, 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
No. 47 (adv.)

2x11 1/2" x 5 1/2" = \$120.00





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

APR 04 2001

6245-3

Shamrock Colony Hutterian Brethren
1908 413th Ave
Carpenter, SD 57322-8200

Dear Sir:

Enclosed is Water Permit No. 6245-3 authorizing construction of your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

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

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

Sincerely,

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

enclosures

c: Brian Friedrichsen, Dakota Environmental, Inc.

Permit No. 6245-3
James River - Water District

Report of Examination of Works and/or Application of Water to Beneficial Use

TO: Chief Engineer, Water Rights Program, DENR, Foss Bldg., Pierre, SD 57501

I have this day, **October 4, 2006**, made a thorough examination of the water use system constructed by **Shamrock Colony Hutterian Brethren** of **1908 413th Ave., Carpenter, SD 57322** holder of Permit No. **6245-3**, bearing the priority of **December 18, 2000** authorizing the diversion of **0.167**cu. ft. per second of the waters of the **Dakota** Formation for **Comercial** purposes, in **Beadle** County.

Inspection contact & relationship **Alvin Waldner**
to permit holder, if applicable:

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: **Pullman Well Drilling**
- 2) No. of Wells **1**
- 3) Depth(s) **880** feet
- 4) Well log is available **Y**

Casing:

- 1) Diameter **5** inches from **0-230** feet and **3** inches from **230-810** feet
- 2) Length **810** feet
- 3) Type **Plastic**

Screen:

- 1) Type **PVC**
- 2) Length **70** feet
- 3) Static water level **55** feet

Pump:

- 1) Make **Grundfos**
- 2) Size **5 hp**
- 3) Capacity **30** GPM

Chemigation Equipment:

- 1) Does chemigate N

B. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by Y
- 2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period NA
- 3) Exceptions to compliance are: None

The system is in Good condition with the point(s) of diversion located as follows: Approximately 200 feet north and 2490 feet east of the SW corner of Section 6-T113N-R59W (N 44.61769, W -97.96808) Well is inside the building next to where the GPS waypoint was taken. The works are capable of diverting and conveying to the place of use 0.07 cu. ft. per second of water which is to be used for Commercial use. Water has been put to beneficial use to the maximum extent as follows:

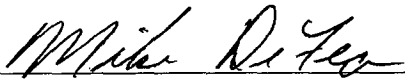
Water from the well is pumped into a holding tank then pumped to the hog barns as needed.

The license should be issued for 0.07 cfs.

All structures, wells and lands on map Y

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

Originally the water permit was permitted to divert water from the Dakota Formation in the SE ¼ SE ¼ Section 6. However, at the time of the inspection, the actual location of the well is in the SE ¼ SW ¼ Section 6 and is in the Dakota Formation. A location change for the diversion point is included with the inspection report.



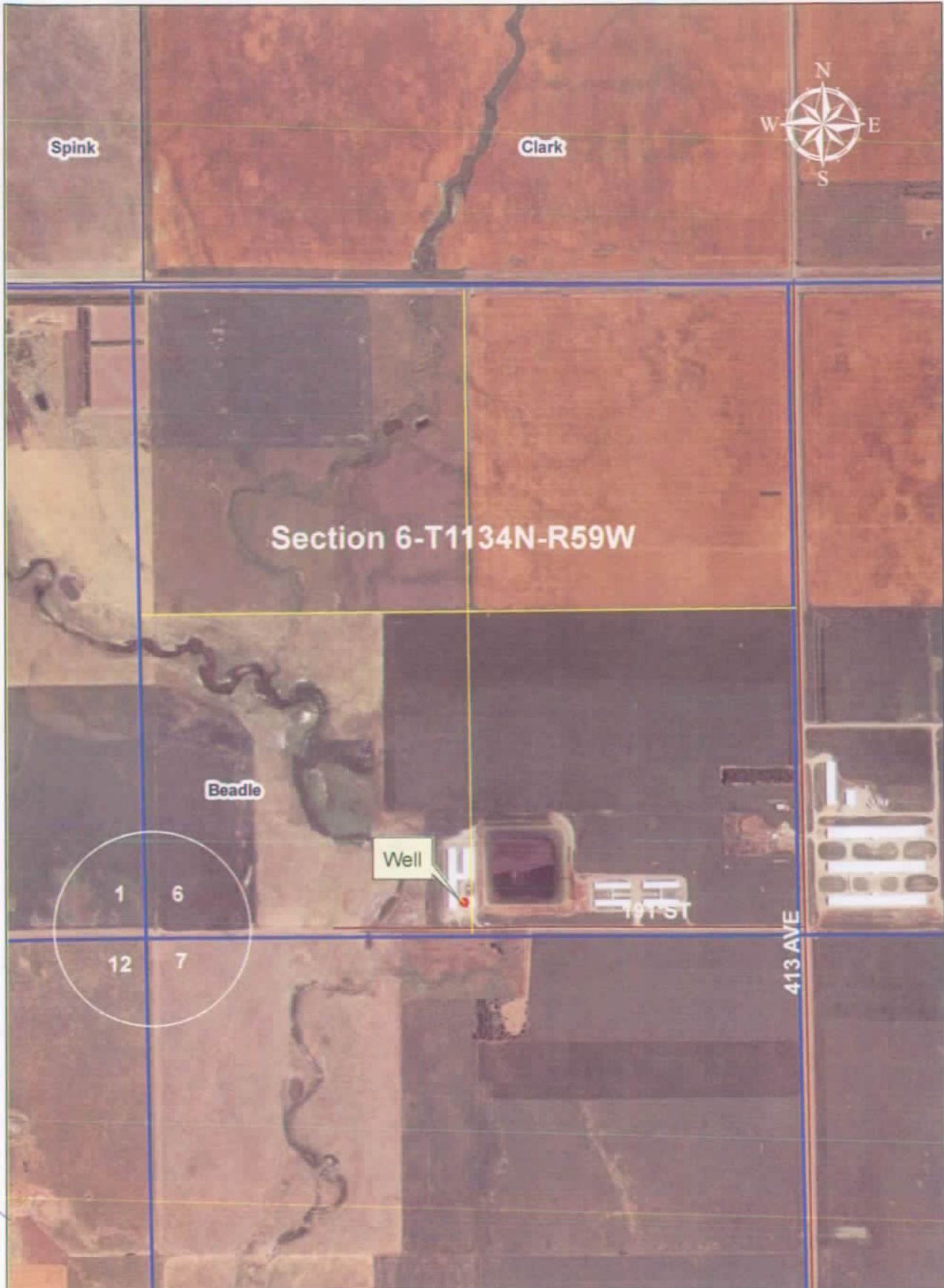
Mike DeFea

Natural Resources Project Engineer
DENR, Water Rights Program

Date report completed: May 30, 2007

Shamrock Colony
1908 413th Ave.
Carpenter, SD 57322

Water Permit No. 6245-3



Mike DeFea

Mike DeFea
Natural Resources Engineer
DENR, Water Rights Program
May 30, 2007



0 700 1,400 2,800 Feet

Approval of Location Change and/or Additional Diversion Point(s)

NAME: Shamrock Colony

ADDRESS: 1908 413th Ave., Carpenter, SD 57322

DATE: May 30, 2007

COUNTY: Beadle

TELEPHONE: 352-5647

AUTHORITY:

Pursuant to SDCL 46-5-13.1, the location of a diversion point may be changed or additional diversion points may be licensed provided the following conditions are met and the potential for interference with other existing diversions is not increased:

• **Developed water source same as permitted source and no additional water appropriated**

The water source is the Dakota Formation same as permitted with no increase in water appropriated. Originally, the diversion point was permitted to divert water from the Dakota Formation in the SE ¼ SE ¼ Section 4-T113N-R59W. At the time of the inspection for licensing of the permit, it was found that the well was actually in the SE ¼ SW ¼ Section 4. Also, the permit was issued to appropriate 0.167-cfs (75 gpm) from the well; however, at the time of the inspection I was informed that the Grundfos pump installed in the well was only capable of delivering 0.07-cfs (30 gpm) which is pumped to a storage tank then pumped to the barns.

• **If irrigation, no new land is irrigated**

Permitted use is for water to be used for the hog barns.

• **Review of Existing Diversions**

The nearest Dakota Formation well in the area is approximately 10 miles away.

RECOMMENDED ACTION

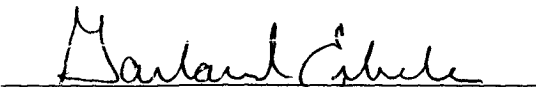
Based on the above criteria, it is recommended that the diversion point be licensed as developed.



Mike DeFea, Natural Resources Project Engineer
DENR, Water Rights Program

The Chief Engineer makes a finding pursuant SDCL 46-5-13.1 and ARSD 74:02:01:14.01 that:

This change in location of the diversion point does not increase the potential for adverse effects to existing diversions.



Garland Erbele, Chief Engineer
Water Rights Program

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 6245-3

(1) Shamrock Colony Hutterian Brethren, 1908 413th Ave, Carpenter SD 57322 made Application No. 6245-3, December 18, 2000 for a water permit to divert 0.167 cubic feet of water per second from groundwater (one well), Beadle County, South Dakota for commercial purposes. Permit No. 6245-3, with a priority date of December 18, 2000 was approved March 7, 2001 and issued to the applicants for diversion of water with construction of the described water supply system to be completed on or before March 7, 2006 and for the application to beneficial use of water on or before March 7, 2010.

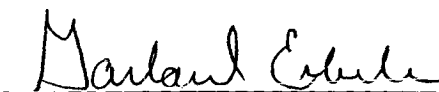
An investigation conducted for licensing purposes found the diversion point developed under Water Permit No. 6245-3 was outside of the permitted area. Pursuant to SDCL 46-5-13.1, the Chief Engineer makes a finding that the change in location of the diversion point does not increase the potential for interference with existing water rights.

(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. 6245-3 is issued a license, bearing a priority date of December 18, 2000 to appropriate 0.07 cubic feet of water per second from groundwater (one well) for commercial use in a swine facility.

The diversion point is located: approximately 200 feet north and 2,490 feet east of the southwest corner of Section 6-T113N-R59W (SE ¼ SW ¼).

(3) This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Permit No. 6245-3 including the following now applicable qualifications:

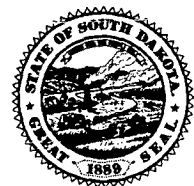
- The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
- Permit No. 6245-3 is subject to compliance with requirements of the Department's General Water Pollution Control Permit for concentrated swine feeding operations.
- The well authorized by Permit No. 6245-3 shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) from the producing formation to the surface pursuant to Section 74:02:04:28.
- The well approved under this Permit shall be valved and the flow reduced to the amount needed or to a minimum when not being used. If this well is abandoned or the Permit cancelled, the well must be plugged in accordance with Water Management Board Rules, Chapter 74:02:04.



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

OCT 17 2007

date





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

6245-3

OCT 17 2007

Shamrock Colony Hutterian Brethren
c/o Alvin Waldner
1908 413th Ave
Carpenter SD 57322

Dear Mr. Waldner:

Enclosed is Water License No. 6245-3. This is the final water right document completing your process of obtaining a Water Right. Also, included with your license is a map prepared by the staff engineer who conducted the 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. 6245-3, constructs a replacement well and does not plan to use the old well, the old well is considered abandoned and must be plugged. Also, any well that is being used or is not considered abandoned must be valved and controlled, if flowing, or sealed and capped so that no leaking occurs either underground or at the surface.

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

Sincerely,

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

enclosures