

**WATER PERMIT NO. 2482-2**

Name of Applicant: **Sioux San Hospital**

Address: **3200 Canyon Lake Drive, Rapid City SD** Phone: **605 355-2339**

Amount of Water Claimed: **0.078 cfs**      Total Acres: **NA**

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

Water to be used for: **institutional** County: **Pennington**

Type of Waste Disposal System: **connected with the city**

**Location: in Rapid City**

PRIORITY      Date Received: **1-25-2002**      Fee: **\$50**

Corrected Application Received: 4/5/02 Period of Annual Use: **January 1 – December 31**

Remarks:

Diversion Point: SW ¼ NW ¼ Sec 3-T1N-R7E

Land to be Irrigated: **NA**

Depth of Well: **643 feet**

Well Driller: :

Remarks:

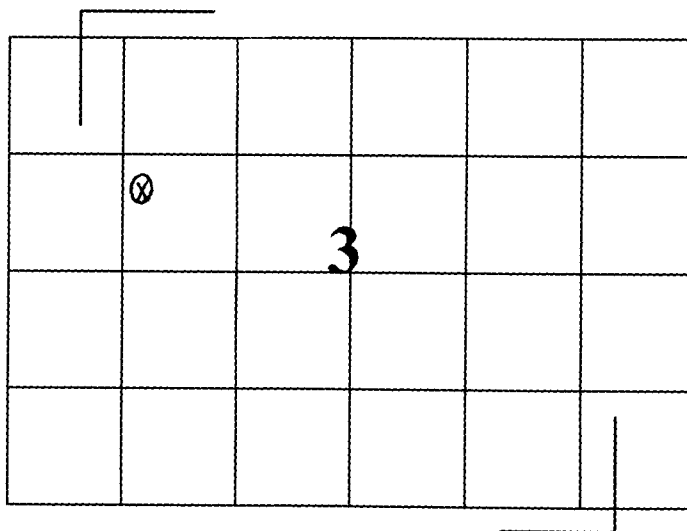
Type of Map: plat

Prepared by: **Melvin B Lamke, PE**

Reviewed and the Number Assigned on: **1-25-2002**

By: **Karen Schlaak**

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



**SOUTH DAKOTA  
WATER PERMIT NO. 2482-2**

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Date of first receipt of application January 25, 2002.

Date of return to applicant for corrections, amendments or changes January 28, 2002.

Date of receipt of corrected application February 5, 2002.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 2482-2 to Sioux San Hospital, 3200 Canyon Lake Drive, Rapid City SD 57702 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. 2482-2 appropriates 0.078 cubic feet of water per second (35 gallons per minute) from one well (Minnelusa Formation) 643 feet deep located in the SW ¼ NW ¼ Section 3-T1N-R7E.
2. The water appropriated shall be used for the purpose of supplying water for institutional use 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 of approval of Permit No. 2482-2 is June 24, 2002.
5. The date from which applicant may claim right is January 25, 2002.
6. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

**QUALIFICATION**

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.

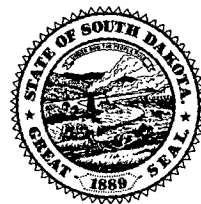
**WATER MANAGEMENT BOARD**

By: Garland Erbele

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

JUL 31 2002

date



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

|                                                                                                                    |                                                 |                                                      |
|--------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|------------------------------------------------------|
| Mail to:<br>Water Rights Program<br>Joe Foss Building<br>523 E. Capitol<br>Pierre, SD 57501-3181<br>(605) 773-3352 | No. <u>2482-2</u>                               | (office use only)<br>Hydrologic Unit <u>10120110</u> |
|                                                                                                                    | Basin <u>Upper Cheyenne</u>                     |                                                      |
|                                                                                                                    | Newspaper <u>Rapid City Journal, Rapid City</u> |                                                      |



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

Check use(s) of water:

|                                                 |                                           |                                          |                                                   |
|-------------------------------------------------|-------------------------------------------|------------------------------------------|---------------------------------------------------|
| <input type="checkbox"/> Municipal              | <input type="checkbox"/> Suburban Housing | <input type="checkbox"/> Recreational    | <input checked="" type="checkbox"/> Institutional |
| <input type="checkbox"/> Rural Water System     | <input type="checkbox"/> Commercial       | <input type="checkbox"/> Fish & Wildlife | <input type="checkbox"/> Geothermal Heat          |
| <input type="checkbox"/> Domestic (over 18 gpm) | <input type="checkbox"/> Industrial       | <input type="checkbox"/> 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.) \_\_\_\_\_

- Name of Applicant Sioux San Hospital Phone 605-355-2339  
(check one) ☐ Owner ☐ Tenant/lessee  
Mailing Address 3200 Canyon Lake Drive, Rapid City State SD 57702  
(Street, RR, or Box and City) (Zip Code)
- Amount of water claimed 0.078 \*CFS or 35 \*\*GPM \*\*\*AF  
(\*Cubic Feet per Second) (\*\*Gallons per Minute) (\*\*\*Acre Feet - storage capacity of dam/dugout or annual use if applicable)
- Source of water supply Well
- Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) the well bears approximately N05°30'E a distance of 690' ± from the 1/4 corner common to sections 3 and 4 of TIN, R7E, B.H.M.(SW 1/4 NW 1/4) Sec 3 County Pennington
- County or counties where water will be used Pennington
- Annual period during which water is to be used all year Jan 1-Dec 31
- 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)

Existing water well

STATE OF SOUTH DAKOTA)  
County of Pennington ) 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, LeRoy DiPasquale, 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 LeRoy DiPasquale  
Subscribed and sworn to before me this 23 day of January 2002

Ann Prairie Tucker  
Notary Public signature 3/31/05

## Supplemental Information

(type or print in ink)

## 1. Well Information - Proposed Construction

- a) Drill Hole Diameter 8 - inch Depth 643 feet
- b) Casing Type black steel Diameter 8"-40 To 480; 6"-480 To 640 Thickness .322
- c) Screen Type shop-performed Diameter 6-inch Thickness .280
- d) Gravel Pack graded quartzite sand Length of Gravel Pack 170 Feet
- e) Depth to Top of Water Bearing Material 480 Feet
- f) Depth to Water (ground surface to water level) 0 Feet
- g) Distance to nearest existing domestic well:
- On applicants property N/A On property owned by others 1200 Feet

## 2. Wastewater Disposal System Information

- a) Type of System (i.e. septic tank, drain field) 8-inch clay tile w/manholes
- b) System Capacity (gallons) \_\_\_\_\_ Year Constructed Unknown
- c) Connected to the City of Rapid City Sanitary System \_\_\_\_\_

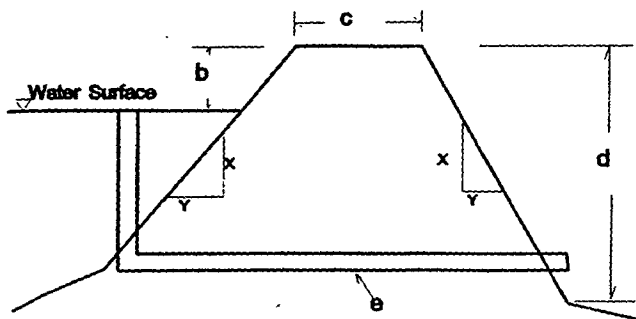
## 3. Dugout Information

- a) Surface Dimensions N/A Depth N/A
- b) Depth to water (ground surface to water level) N/A

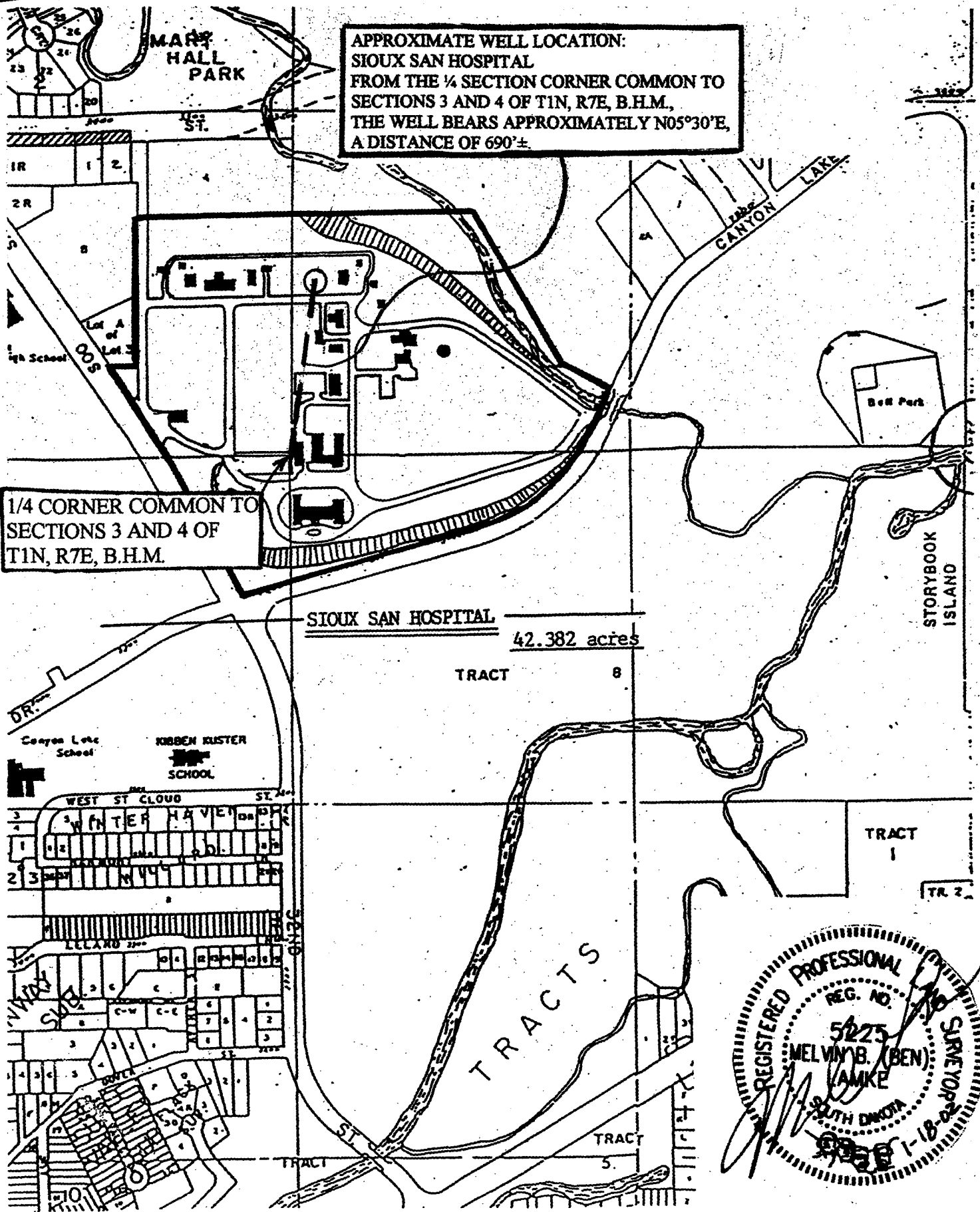
4. Water Storage Dams N/A

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



APPROXIMATE WELL LOCATION:  
SIOUX SAN HOSPITAL  
FROM THE 1/4 SECTION CORNER COMMON TO  
SECTIONS 3 AND 4 OF T1N, R7E, B.H.M.,  
THE WELL BEARS APPROXIMATELY N05°30'E,  
A DISTANCE OF 690±

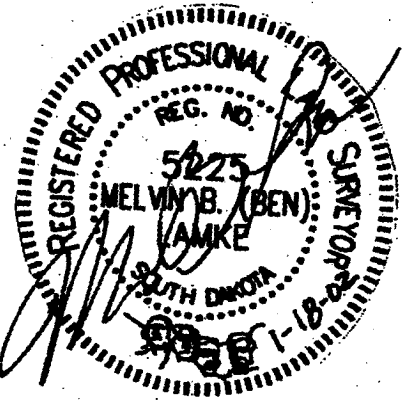
1/4 CORNER COMMON TO  
SECTIONS 3 AND 4 OF  
T1N, R7E, B.H.M.

SIOUX SAN HOSPITAL  
42.382 acres  
TRACT 8

STORYBOOK  
ISLAND

TRACT 1

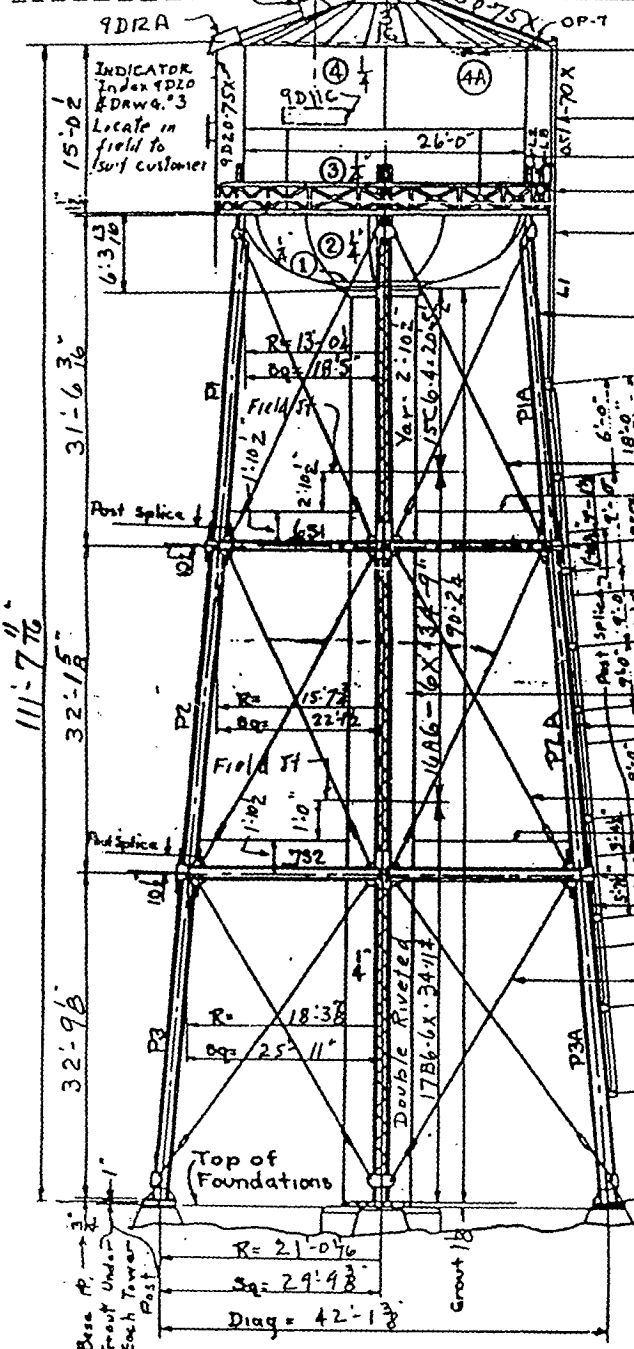
TRACT 5



Renner & Sperlich Engineering Co.

616 Sixth St. • Rapid City, SD 57701 • 605/342-1191  
FAX: 605/342-1405 • E-MAIL: RSEC@RAPIDNET.COM

Diameter of Tank at top inside  
26'-0"  $\frac{1}{16}$ "



- Std. 12" C.I. Final Patt. No 9C9-B.
- Std. Conical Steel Roof (Copper Bearing)  
(Door in roof to right of ladder)
- Std. 3" C.I. Overflow Patt. No 9C3.
- FIELD FOREMAN NOTE: BOLT REVOLVING LADDER TO RIGHT OF POST TO TANK LADDER
- Revolving Ladder (Ladder Bars 15")
- Std. 75000 Gallon Tank 26'-0" Diam. x 32'-0" High
- 30" Balcony and 36" Handrail.  
Bolt. R. 5/16" Copper Bearing Steel
- 2 Ladder Lugs OP51 K  
2 1/2" x 6" x 1/2" x 0.43"
- Spec Balcony to Post Ladder & Manhole Above B. Conn.
- See Drwg. 3
- 4 Posts: 2 @ 12" x 20.7" x 32'-1 1/2"  
(1-P1 14" x 1/2" x 29'-8" Conn. Lead 3)
- 8 Tower Rods: 1/4" x 35'-2 1/2" B. to B.
- 4 Cylinder Rods: 3/4" x 12'-2 1/2" B. to E.
- 4 Struts: 2 @ 12" x 22'-2 1/2" Bend
- Post Ladder - Crimp ends at top
- 1 B. Ladder Lugs OP51 K (See Bill Sheet 3)  
Bt P's 5 1/2" x 1/2" x 0.43"  
Ladder 15" B. to B.
- Cylinder 6" Diam. x 10'-2 1/2" High in 3 B.
- 4 Posts: 2 @ 12" x 20.7" x 32'-3"  
(1-P1 14" x 1/2" x 32'-3")
- 8 Tower Rods: 1/4" x 38'-4 1/4" B. to B.
- 4 Cylinder Rods: 3/4" x 14'-1 1/2" B. to E.
- 4 Struts: 2 @ 12" x 26'-0" Bend to B.
- 4 Posts: 2 @ 12" x 20.7" x 33'-9 1/4"  
(1-P1 14" x 1/2" x 32'-7 1/4")
- 8 Tower Rods: 1/4" x 40'-7 1/2" B. to B.
- Inlet Pipe 8" C.I. Furnished by C.B.F.I.  
Std 6" Blow off Valve
- Std. 14" x 22" Manhole Cover Patt. No 9C1  
Reinf. R. pc3-Dwg. #3 & Manhole  
Swinging Support - Index 9P51
- Std. Foundations - Furnished by C.B.F.I.
- 4 Anchor Bolts: 1 3/4" x 6'-6" Long  
2" hole in ctr. of shoe.
- Customer's Inspection: Mill No. \_\_\_\_\_ Shop No. \_\_\_\_\_ Field Yes
- Purchaser's Or Purchaser's Re.

**CHICAGO BRIDGE & IRON WORKS**  
CHICAGO, ILLINOIS

**GENERAL PLAN**

25,000 GAL. ELEVATED TANK 111'-7 1/2" TO TOP  
FOR Rapid City Indian School  
LOCATION Rapid City So. Dakota

DRAWN BY MNL DATE 11-12-32 CONTRACT NO. \_\_\_\_\_  
TRAINED BY F.D. 11-17-32  
CHECKED BY \_\_\_\_\_  
SHEET 1 OF 3 3188

• Drilling Log:

0' - 40', boulders  
40' - 55', red shale  
55' - 90', red clay and flint rock  
90' - 148', clay and boulders  
148' - 240', red clay, lime, boulders  
240' - 245', lime and boulders  
245' - 270', hard lime  
270' - 285', hard lime and red shale  
285' - 290', lime  
290' - 318', sandy shale and gypsum  
318' - 367', sandy shale  
367' - 453', sandy shale and gypsum  
453' - 480', sand and lime  
(top of Minnelusa Formation)  
480' - 503', hard sand and lime  
503' - 556', lime  
556' - 596', lime and sand  
596' - 635', sandstone and sand  
635' - 643', red shale, and sand  
(assumed to be "middle marker" of  
Minnelusa Formation)

# RECEIPT

## Water Rights Program

South Dakota Department of Environment and Natural Resources

NO 417134

Pierre, April 5, 20 02

RECEIVED OF Sioux San Hospital, 3200 Canyon Lake Dr., Rapid City ~~Indian Hospital, Rapid City~~ SD  
the following amount in fees for services rendered as provided for by law: 57702

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 Filing Extension Request \_\_\_\_\_

Fee for \_\_\_\_\_  
payment was an electronic transfer

(Any Other Work Provided by Law)

Total

100 00

By

Darlene Erbe

Chief Engineer

gmv



DEPARTMENT OF HEALTH AND HUMAN SERVICES

Indian Health Service  
Rapid City Indian Hospital  
Rapid City, SD 57702

January 23, 2002

Facility Manager  
Rapid City Indian Hospital

Water Rights Program,

Attached is the application for water permit for nonirrigation uses. Two completed copies of form 2 and form 2a, one copy of the well location map, well log and elevated water storage reservoir.

A copy of the \$100 purchase order, application fee \$50 plus water rights fee \$50, is also attached. Before payment can be made, please send an invoice to Ann Prairie Chicken, at the above address.

Sincerely,

Leroy DiPasquale

Voice - (605) 355-2339

Email: leroyd@rapidcity.aberdeen.ihs.gov





DEPARTMENT of ENVIRONMENT  
and NATURAL RESOURCES

JOE FOSS BUILDING  
523 EAST CAPITOL  
PIERRE, SOUTH DAKOTA 57501-3182  
[www.state.sd.us/denr](http://www.state.sd.us/denr)

April 3, 2002

Leroy DiPasquale, Facility Manager  
Sioux San Hospital  
3200 Canyon Lake Dr.  
Rapid City SD 57702

Dear Mr. DiPasquale:

On January 25, 2002, you submitted an Application for Permit to Appropriate Water Within the State of South Dakota on behalf of Sioux San Hospital. As requested, an invoice for the application/license fee was forwarded to Ann Prairie Chicken on January 28<sup>th</sup>. To date, we have not received the required fee. Enclosed is another invoice.

Obtaining a water permit that accurately reflects the hospital's water use ultimately benefits the hospital by protecting the it's right to use water. Except for domestic use, any water user without a water right is not entitled to receive protection in the event of interference by a new or future user who has a water right.

Pursuant to South Dakota Codified Laws 46-1-15, 46-5-9, 46-5-10 and 46-2-18, you must have a water permit prior to using water.

If you have any questions, please contact me.

Sincerely,

*Karen Schlaak*

Karen Schlaak  
Water Rights Program  
Phone: (605) 773-3352

enclosure



DEPARTMENT of ENVIRONMENT  
and NATURAL RESOURCES

JOE FOSS BUILDING  
523 EAST CAPITOL  
PIERRE, SOUTH DAKOTA 57501-3182  
[www.state.sd.us/denr](http://www.state.sd.us/denr)

\*\*\*\*\*  
\* INVOICE \*  
\*\*\*\*\*

Invoice No. 20411-12802

Ann Prairie Chicken  
Indian Health Service  
Rapid City Indian Hospital  
Rapid City, SD 57702

-----  
Application fee and water rights fee

\$100.00  
-----

PLEASE PAY THIS AMOUNT:

\$100.00

Glenda Marks  
Secretary  
Water Rights Program  
(605) 773-3352

## **Water Rights Program - File Documentation**

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**NAME:** Ann Prairie Chicken

**ADDRESS:** Rapid City

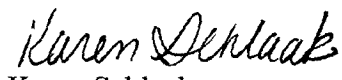
**DATE:** 4-4-2002      **COUNTY:** PE      **TELEPHONE:** 605 355-2339

**RE:** Sioux San Hospital pending application

**COMMENTS:**

Ms. Prairie Chicken called regarding my letter date 4-3-2002. She stated the application/license fee had been paid by electronic transfer on February 5<sup>th</sup>.

We did some checking and found that the electronic transfer did occur at that time.

  
Karen Schlaak  
Environmental Scientist

WATER PERMIT APPLICATION NO. 2482-2  
SIOUX SAN HOSPITAL  
APRIL 17, 2002

Water Permit Application No. 2482-2 proposes to appropriate 0.078 cubic feet of water per second (35 gallons per minute) from one existing well 643 feet deep (Minnelusa aquifer) located in the SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  Sec.3, T1N-R7E. The water is for institutional use.

**AQUIFER:** Minnelusa aquifer (MNLS)

**GENERAL:**

The Minnelusa Formation consists of alternating beds of sandstone and dolomitic limestone with lesser amounts of shale and chert, approximately 500 feet thick in this area (Carter and Redden, 1999a, Carter and Redden, 1999b). The Minnelusa Formation outcrops approximately one and one-half miles southwest of this well (Fahrenbach and Sawyer, 2001). The top of the Minnelusa is reported to be 453 feet below grade on the driller's log submitted with this application. The porous portions of the formation make up the Minnelusa aquifer. Peter (1985) states that "The sandstone beds in the upper part of the Minnelusa are the most-utilized aquifer in the eastern Black Hills." Well sorted sand lenses in the Minnelusa have porosity's approaching 25%, but generally the sands have porosity's of 10%. The average porosity of the Minnelusa is estimated to be 10% and the effective porosity is assumed to be 5% (Rahn, 1979). The Minnelusa formation underlies virtually all of western South Dakota and the Minnelusa aquifer contains over 755 million acre-feet of recoverable water in storage (Allen and others, 1984). The Minnelusa aquifer underlies approximately 1,371,520 acres of Pennington County and contains an estimated 51,432,000 acre-feet of recoverable water in storage in the county (Allen, and others 1984). Ground water movement in the aquifer is probably toward the north and east (Strobel, and others 2000). There is no aquifer-test data available for the Minnelusa aquifer at this site; therefore, the aquifer transmissivity and storage coefficient values are unknown. Estimates from regional studies of the aquifer indicate the aquifer transmissivity may range from 30 to 1000 ft<sup>2</sup>/d, and the storage coefficient ranges from  $6.6 \times 10^{-5}$  to  $2 \times 10^{-4}$  (Kyllonen, 1987). The water quality of the aquifer is generally good near the outcrop but deteriorates considerably with distance from the recharge area. The aquifer is under artesian conditions at this site.

**WATER AVAILABILITY:**

The availability of unappropriated water from an aquifer can be evaluated by considering SDCL 46-6-3.1. This statute requires that an application to appropriate groundwater can 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 average estimated annual recharge.

Recharge to the Minnelusa aquifer is primarily from infiltration of precipitation on the outcrop and stream flow losses. Average annual recharge from 1931-1998 is estimated to be approximately 112,000 acre-feet per year (Carter and others, 2001a).

The Water Rights Program monitors 23 observation wells completed into the Minnelusa aquifer in the Black Hills area. Water Rights Observation Well PE-64B is located approximately 1500 feet southeast of this well. The hydrograph for the well (see figure 1), is

fairly typical for the Minnelusa Aquifer. That is, the water levels reach their peak in the early summer each year and gradually decline until spring. The majority of the recharge to the system occurs between March and July. The hydrograph also shows the aquifer's response to climatic conditions and the magnitude of fluctuation in the water levels in the area (>30'). The lowest water levels on record occurred in the mid to late 1960's and in 1992; the highest water levels in occurred in 1999.

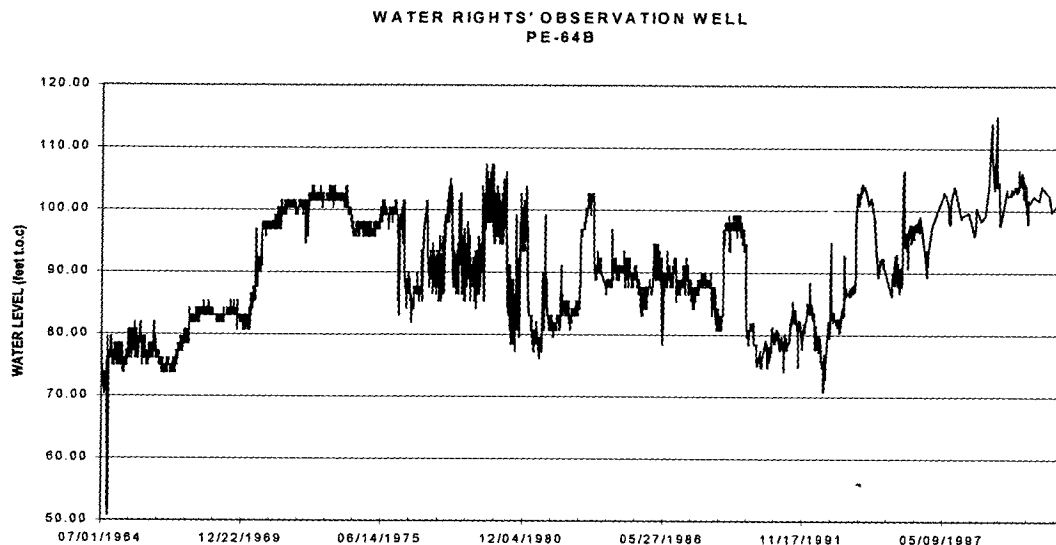


Figure 1. Hydrograph of Water Rights' Observation Well completed into the Minnelusa aquifer located approximately 1500 feet from the well that is to be used to supply water for 2482-2

It is obvious from the hydrographs of Minnelusa observation wells, that withdrawals have not exceeded recharge for the period of record. The observation well data suggests that at the existing level of development, the aquifer is capable of sustaining additional withdrawals.

There are a total of 174 appropriations from the Minnelusa aquifer in South Dakota, including two Future Use Reservations (Water Rights, 2002c). The aquifer is used primarily for domestic, commercial, municipal, suburban housing and irrigation uses. There are 41 permits/rights appropriating water from the Minnelusa aquifer in Pennington County (Water Rights, 2002c). In addition to appropriative rights, there are a number of domestic wells completed into the Minnelusa aquifer on file with the Water Rights Program (Water Rights, 2002a). Future Use Permits (No. 902-1 and 969-1) reserve 1460 acre-feet annually. Water Permits and Rights represent appropriations up to 10,649.7 acre-feet annually for irrigation use and a combined diversion rate of 34.222 cfs for non-irrigation uses. Maximum well withdrawals from the Minnelusa aquifer, assuming (1) that permits/rights with an annual withdrawal limitation (ac-ft/yr.) will use the maximum allowable; and (2) permits/rights that are limited by a diversion rate only, will use 60% of the maximum allowable (considered reasonable for water distribution systems); would be approximately 25,000 acre-feet per year. The actual amount of water used from the aquifer is considerably less than this estimate. Withdrawals from wells (domestic and appropriative) completed into

the Minnelusa aquifer were estimated to be 7,268.6 acre-feet annually from 1987-1996 (Carter and others, 2001b).

The maximum potential withdrawal from the Minnelusa aquifer at the current level of appropriation is less than 23% of than average annual recharge estimated for the aquifer. Therefore, based on a simple water budget, it is clear that unappropriated water is available for this appropriation.

#### **AFFECTS ON EXISTING RIGHTS:**

There are five existing Water Rights/Permits appropriating groundwater within one mile of the well that is to be used to supply this permit. They include:

| PERMIT NO | NAME              | AQUIFER | USE |
|-----------|-------------------|---------|-----|
| 436-2     | Rapid City        | MNLS    | MUN |
| 454-2     | BHP&L             | MDSN    | IND |
| 515-2     | BHP&L             | MNKT    | IND |
| 1953-2    | Military/Veterans | MNLS    | IRR |
| 2273-2    | Rapid City        | MDSN    | MUN |

Interference between this well and the well that supplies Water Right No. 515-2, is not probable since the BHP&L well is completed into the Minnekahta aquifer which is hydrologically separated from the Minnelusa aquifer by the Opeche shale.

This well is near the area described by Greene (1993), as where the potentiometric heads in the Minnelusa and Madison aquifers are similar. He states that this area indicates a possible greater hydraulic connection of the two aquifers. The degree of hydraulic separation between the Madison and Minnelusa aquifers is questionable. In this area, a Madison aquifer observation well and a Minnelusa aquifer observation well located approximately the same distance from a high capacity municipal well completed into the Madison aquifer show entirely different responses to the pumping. Hydrographs of the two wells (figure 2) demonstrate the aquifers are isolated from each other in this area. It is improbable that Water Rights 454-2 and 2273-2 will be affected by this appropriation.

WATER RIGHTS' OBSERVATION WELLS  
PE-64B & PE-65A

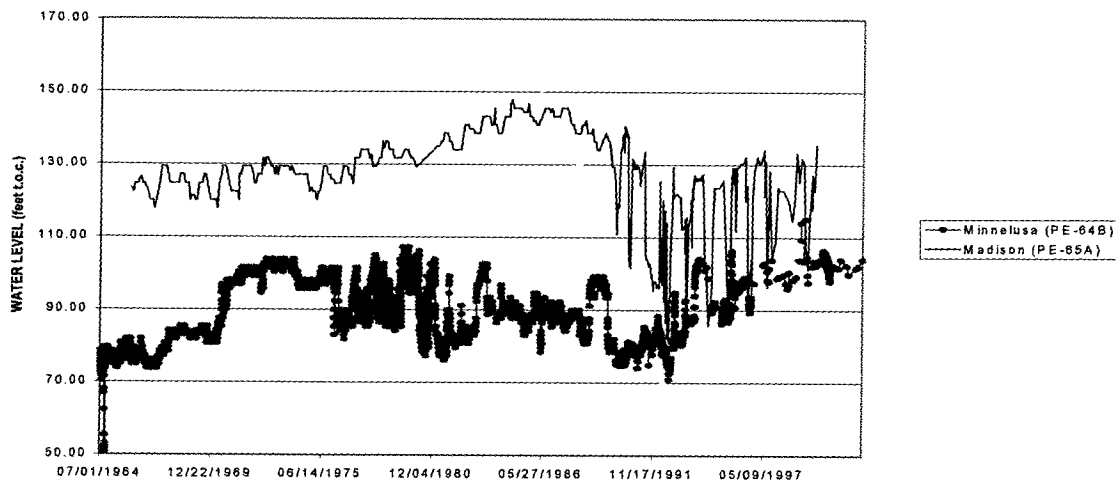


Figure 2. Hydrograph comparing a Madison aquifer observation well with a Minnelusa aquifer observation well.

Water Rights/Permits that are supplied from the Minnelusa aquifer, (436-2 and 1953-2) are located at a sufficient distance from this well to minimize any affect that the diversion rate proposed by this application (35 gpm) would have on them. Adequate wells completed into the Minnelusa aquifer will not be adversely affected by this diversion.

**CONCLUSIONS:**

1. This is an existing well that has been in use for a number of years with no reported controversy.
2. The Minnelusa Aquifer is a viable aquifer in this area, and water is available for this appropriation.
3. The Minnelusa is under artesian conditions and drawdown due to this diversion can be expected. This drawdown is not expected to adversely affect adequate wells in the area.

Ken Buhler

Natural Resources Engineering Specialist

Approved by

James A. Goodman, PE

Natural Resources Engineering Director

## REFERENCES:

- Allen, J.C., Iles, D.L., and Petres, A.K., 1984, Analysis of Groundwater and Streamflow Data Western Dakotas Region of South Dakota, Task 3 and 4: Groundwater Resource Inventory, Department of Water and Natural Resources,
- Carter, J.M., and Redden, J.A., 1999a, Altitude to the top of the Minnelusa Formation, Black Hills area, South Dakota: U.S. Geological Survey Hydrologic Investigation Atlas HA-744-C
- Carter, J.M., and Redden, J.A., 1999b, Altitude to the top of the Minnelusa Formation, Black Hills area, South Dakota: U.S. Geological Survey Hydrologic Investigation Atlas HA-744-D
- Carter, J.M., Driscoll, D.G., and Hamade, G.R., 2001a, Estimated Recharge to the Madison and Minnelusa Aquifers in the Black Hills Area, South Dakota and Wyoming, Water Years 1931-98, Water-Resources Investigations Report 00-4278,
- Greene, E.A., 1993, Hydraulic Properties of the Madison Aquifer System in the Western Rapid City Area, South Dakota: U.S. Geological Survey Water-Resources Investigations Report 93-4008,
- Fahrenbach, M.D., and Sawyer, J.F., 2001, Geologic Map of the Rapid City West Quadrangle, South Dakota: S.D. Department of Environment and Natural Resources Geological Survey Program 7.5 Minute Series Geologic Quadrangle Map 1
- Kyllonen, D.P., Peter, K.D., 1987, Geohydrology and Water Quality of the Inyan Kara, Minnelusa, and Madison Aquifers of the Northern Black Hills, south Dakota and Wyoming, and Bear Lodge Mountains, Wyoming: U.S. Geological Survey Water-Resources Investigations Report 86-4158
- Peter, K.D., 1985, Availability and Quality of Water from the Bedrock Aquifers in the Bedrock Aquifers in the Rapid City Area, South Dakota: U.S. Geological Survey Water-Resources Investigations Report 85-4022
- Rahn, P.H., 1979, Ground Water Resources of Western South Dakota, US Army Corps of Engineers, Draft Report-Final
- Strobel, M.L., Galloway, J.M., Hamade, G.R., and Jarrell, G.J., 2000, Potentiometric Surface of the Minnelusa Aquifer in the Black Hills Area, South Dakota: U.S. Geological Survey Hydrologic Investigation Atlas HA-745-C



**DEPARTMENT of ENVIRONMENT  
and NATURAL RESOURCES**

JOE FOSS BUILDING  
523 EAST CAPITOL  
PIERRE, SOUTH DAKOTA 57501-3182  
[www.state.sd.us/denr](http://www.state.sd.us/denr)

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT  
APPLICATION NO. 2482-2, Sioux San Hospital**

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. 2482-2, Sioux San Hospital, c/o LeRoy Dipasquale, 3200 Canyon Lake Drive, Rapid City SD 57702.

The Chief Engineer is recommending APPROVAL of Application No. 2482-2 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 qualification:

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.

See report on application for additional information.

Garland Erbele, Chief Engineer  
May 23, 2002

## PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA )  
 ) SS  
 County of Pennington )

I, Patricia K. Van Patten

certify that the attached printed Notice was  
 taken

from the Rapid City Journal

printed and published in Rapid City

County of Pennington and

state of South Dakota. The notice was published

in the newspaper on the following two dates:

June 4, 2002

June 11, 2002

Cost of Printing Eighty-two dollars and  
sixteen cents (\$82.16)

Patricia K. Van Patten  
 (Signature)

Legal Advertising Representative  
 (Title)

6/11/02  
 (Date Signed)

June 4, 11 L7153068

**NOTICE OF  
 APPLICATION NO. 2482-2  
 TO APPROPRIATE WATER**

Notice is given that Sioux  
 San Hospital, 3200 Canyon  
 Lake Drive, Rapid City, SD  
 57702, has filed an application  
 for a water permit to appro-  
 priate 0.078 cubic feet of water  
 per second (35 gallons per  
 minute) from one well  
 (Minnelusa Formation) 643  
 feet deep located in the SW¼  
 NW¼ Section 3-T1N-R7E. The  
 water is for institutional use.

Pursuant to SDCL 46-2A-2,  
 the Chief Engineer recom-  
 mends APPROVAL of Applica-  
 tion No. 2482-2 because 1) un-  
 appropriated water is avail-  
 able, 2) existing rights will not  
 be unlawfully impaired, 3) it is  
 a beneficial use of water, and  
 4) it is in the public interest.  
 In accordance with SDCL 46-  
 2A-23, the Chief Engineer will  
 act on the application, as rec-  
 ommended, unless a petition is  
 filed opposing the application  
 or the applicant files a petition  
 contesting the Chief Engi-  
 neer's recommendation. If a  
 petition opposing the applica-  
 tion or contesting the recom-  
 mendation is filed, then a  
 hearing will be scheduled and  
 the Water Management Board  
 will consider the application.  
 Notice of the hearing will be  
 given to the applicant and any  
 person filing a petition.

Any person interested in  
 opposing or supporting this  
 application or recommendation  
 must file a written peti-  
 tion with BOTH the applicant  
 and Chief Engineer. The appli-  
 cant must file a petition if  
 contesting the Chief Engi-  
 neer'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 24, 2002.

The petition may be infor-  
 mal, but must include a state-  
 ment describing the petiti-  
 oner's interest in the applica-  
 tion, the petitioner's reasons for  
 opposing or supporting the appli-  
 cation, and the signature and  
 mailing address of the peti-  
 tioner or the petitioner's legal  
 counsel, if legal counsel is ob-  
 tained. Contact Eric Gronlund  
 at the above Water Rights  
 Program address to request  
 copies of information pertain-  
 ing to this application.

Steven M. Pirner, Secretary  
 Department of Environment  
 and Natural Resources

RECEIVED

JUN 11 2002

WATER RIGHTS  
 PROGRAM



DEPARTMENT of ENVIRONMENT  
and NATURAL RESOURCES

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

May 28, 2002

Rapid City Journal  
PO Box 450  
Rapid City, SD 57709

ATTENTION: Legal Public Notice

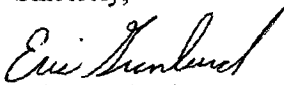
Enclosed is a Notice of Hearing on Application No. 2482-2 to Appropriate Water to be published twice. Please publish the first notice on June 4, 2002 with the second publication 7 days later.

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 Sioux San Hospital, %Leroy DiPasquale, Facility Manager, 3200 Canyon Lake Dr., Rapid City, SD 57702 (Ph # 605-355-2339).

**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-----

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

No. 2482-2

Date \_\_\_\_\_

We are in receipt of your letter of May 28, 2002 enclosing Notice of Hearing to Appropriate Water by Application No. 2482-2 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](http://www.state.sd.us/denr)

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

May 28, 2002

Leroy Dipasquale, Facility Manager  
Sioux San Hospital  
3200 Canyon Lake Dr.  
Rapid City, SD 57702

Dear Mr. Dipasquale:

Water Permit Application No. 2482-2 for institutional 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 Rapid City Journal printed at Rapid City, SD (Ph # 605-394-8300). You will need to contact the newspaper and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and 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. 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

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 June 4, 2002 with the second publication 7 days later. The applicant is responsible for payment.

---

NOTICE OF APPLICATION NO. 2482-2 to Appropriate Water

Notice is given that Sioux San Hospital, 3200 Canyon Lake Drive, Rapid City SD 57702 has filed an application for a water permit to appropriate 0.078 cubic feet of water per second (35 gallons per minute) from one well (Minnelusa Formation) 643 feet deep located in the SW ¼ NW ¼ Section 3-T1N-R7E. The water is for institutional use.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2482-2 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on the application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider the application. Notice of the hearing will be given to the applicant and any person filing a petition.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by June 24, 2002.

The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to this application. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.



**DEPARTMENT of ENVIRONMENT  
and NATURAL RESOURCES**

JOE FOSS BUILDING  
523 EAST CAPITOL  
PIERRE, SOUTH DAKOTA 57501-3182  
[www.state.sd.us/denr](http://www.state.sd.us/denr)

May 27, 2002

Daniel Bjerke, Public Works Director  
City of Rapid City  
300 6<sup>th</sup> Street  
Rapid City SD 57701-2724

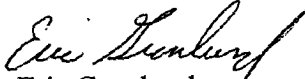
Dear Mr. Bjerke:

I am writing regarding Water Permit Application No. 2482-2 filed by Sioux San Hospital. This application proposes to appropriate water for institutional use at their facility.

Enclosed is a copy of the recommendation, report and notice of hearing on this application. The notice is to be published in the Rapid City Journal on June 4 and 11, 2002.

This information is being sent to you to keep you informed of water right permitting issues in close proximity to Rapid City.

Sincerely,

  
Eric Gronlund  
Water Rights Program  
(605) 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT  
and NATURAL RESOURCES**

JOE FOSS BUILDING  
523 EAST CAPITOL  
PIERRE, SOUTH DAKOTA 57501-3182  
[www.state.sd.us/denr](http://www.state.sd.us/denr)

JUL 31 2002

Sioux San Hospital  
% LeRoy Dipasquale  
3200 Canyon Lake Dr  
Rapid City SD 57702

Dear Mr. Dipasquale:

Enclosed is Water Permit No. 2482-2 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

**NOTICE OF COMPLETION OF WORKS AND  
APPLICATION OF WATER TO BENEFICIAL USE**

Date Aug 5, 2002

TO: Water Rights Program, DENR  
523 E. Capitol  
Pierre, SD 57501-3181

FROM:

SIoux SAN HOSPITAL  
(name)3200 CANYON LAKE DR.  
(address)RAPID CITY, SD 57702  
(city, state, zip)355-2208  
(phone)

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

Water Permit No. 2482-2 states that the water use system is to be constructed by1962  
(date)

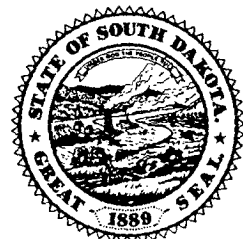
, and water is to be put to beneficial use by

1962  
(date)The water use system was completed on 1962  
(date)Applying the water to beneficial use was completed on 1962  
(date)

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

Larry D. Pargueta  
(signature)

RECEIVED  
AUG - 7 2002  
WATER RIGHTS  
PROGRAM



**Permit No. 2482-2**  
**Upper Cheyenne (10120110) - 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 30, 2003**, made a thorough examination of the water use system constructed by **Sioux San Hospital, c/o LeRoy DisPasquale, 3200 Canyon Lake Drive, Rapid City SD 57702** holder of Permit No. **2482-2**, bearing the priority of **January 25, 2002** authorizing the diversion of **0.078** cu. ft. per second of the waters (35 gallons per minute) from the **Minnelusa Formation** for **institutional** purposes, in **Pennington** County.

I have to report on the conditions of the same as follows:

A. Works used to divert the water:

**Submersible pump capable of producing 35 gpm**

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

**Water pumped to a 75,000 gallon elevated tank**

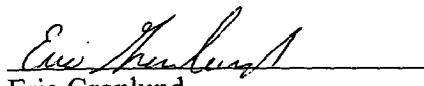
C. Works used to apply water to beneficial use:

**Water lines from tower to serve the hospital and other buildings at complex**

The system is in the following condition **good**. The point of diversion is located **approximately 1,950 feet south and 65 feet east of the NW Corner (SW ¼ NW ¼) of Section 3, T1N, R7E (Lat/Lon N 44.075957 W-103.26984)**. The works are capable of diverting and conveying to the place of use **0.078** cu. ft. per second of water (35 gpm) which is to be used for **institutional purposes**. Water has been put to beneficial use to the maximum extent and the license should be issued for **.078** cfs (35 gpm)

Applicable permit qualifications have been complied with: **YES**

Exceptions to compliance are: **none**      Date Report Completed: **February 11, 2004**

  
Eric Gronlund  
Natural Resources Engineer  
DENR, Water Rights Program

## FIELD INVESTIGATION REPORT FOR PERMIT NO. 2482-2

|                                                                                          |                                                                                                                                                             |
|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DATE OF INVESTIGATION:                                                                   | <b>October 30, 2003</b>                                                                                                                                     |
| NAME & ADDRESS OF INVESTIGATION CONTACT/<br>RELATIONSHIP TO PERMIT HOLDER, IF APPLICABLE | <b>LeRoy DiPasquale</b>                                                                                                                                     |
| NAME & ADDRESS OF PERMIT HOLDER                                                          | <b>Sioux San Hospital<br/>3200 Canyon Lake Drive<br/>Rapid City SD 57702</b>                                                                                |
| DIVERSION POINT LEGAL LOCATION                                                           | <b><u>approximately 1,950 feet south and 65 feet e<br/>of the NW Corner (SW ¼ NW ¼) of Section<br/>T1N, R7E (Lat/Lon N 44.075957 W-<br/>103.26984).</u></b> |

**WATER SUPPLY**      Source: Minnelusa Formation

**Well Information:**

- |                                                                   |                                     |
|-------------------------------------------------------------------|-------------------------------------|
| 1) Well Drilling Firm: <u>unknown</u>                             | 2) No. of Wells <u>1</u>            |
| 3) Depth(s) <u>approx. 643</u> feet<br><u>information in file</u> | 4) Well log is available <u>yes</u> |

**Casing:**

- |                                                                       |                |
|-----------------------------------------------------------------------|----------------|
| 1) Diameter <u>8 inch from 0 – 480' &amp; 6 inch from 480' – 640'</u> | 2) Length feet |
| 3) Type <u>steel</u>                                                  |                |

**Screen:**

- |                                                  |                      |
|--------------------------------------------------|----------------------|
| 1) Type <u>unknown – believe shot perforated</u> | 2) Length _____ feet |
| 3) Static water level <u>?</u> feet              |                      |

**Pump:**

- |                         |                           |
|-------------------------|---------------------------|
| 1) Make <u>Grundfos</u> | 2) Model <u>49 S 207</u>  |
| 3) Size <u>  </u>       | 4) Capacity <u>35</u> GPM |

**Motor:**

- |                                  |                                                     |
|----------------------------------|-----------------------------------------------------|
| 1) Make <u>Franklin</u>          | 2) Model No. <u>22443059204 (may be serial No.)</u> |
| 3) Horsepower rating <u>2</u> hp |                                                     |

Mr. DiPasquale had very good records of well production and I viewed the pump curve for the pump. Based on the notice of completion of works, the system has been in place since 1962. Mr. DiPasquale stated that Taylor Drilling replaced the pump on May 25, 1999. A document in the file showing the tower indicates it was constructed around 1932.

### PERMIT QUALIFICATIONS AND REGULATIONS:

- 1) Special qualifications to permit being abided by Yes
- 2) All structures, wells and lands on map Yes
- 3) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period not applicable

Mr. DiPasquale indicated that water use is constant which makes him believe there is a leak in the system. They are in the process of metering at the various buildings in the complex in an effort to track down the leak.



Sioux San Hospital well



Picture inside of well housing.

Water Permit No. 2482-2, Sioux San Hospital



0 1,250 2,500 5,000 Feet

Well located approximately 1,950 feet south and 65 feet east  
of the Northwest corner (SW 1/4 NW 1/4) Section 3, T1N, R7E  
(Lat/Lon 44.075957, -103.26984)



*Eric Gronlund*

Eric Gronlund  
Water Rights Program, DENR  
Licensing Investigation - October 30, 2003

## STATE OF SOUTH DAKOTA

### WATER LICENSE NO. 2482-2

(1) The Sioux San Hospital, 3200 Canyon Lake Drive, Rapid City SD 57702 made Application No. 2482-2, January 25, 2002 for a water permit to divert 0.078 cubic feet of water per second (35 gallons per minute) from ground water (one well – Minnelusa Formation), Pennington County, South Dakota for institutional purposes. Permit No. 2482-2, with a priority date of January 25, 2002 was approved June 24, 2002 and issued to the applicant for diversion of water with construction of the described water supply system completed and the application to beneficial use of water completed.

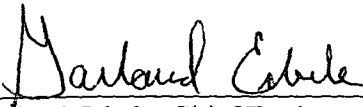
(2) The water supply system has been completed and water applied to beneficial use in accordance with South Dakota State Law. Pursuant to South Dakota Codified Law 46-5-30.1, Sioux San Hospital, 3200 Canyon Lake Drive, Rapid City SD 57702 the holder and/or owner of Water Right No. 2482-2 is issued a license, bearing a priority date of January 25, 2002 to appropriate 0.078 cubic feet of water per second (35 gallons per minute) from ground water (one well – Minnelusa Formation) for institutional purposes.

The diversion point is located approximately:

- 1,950 feet south and 65 feet east of the NW corner of Section 3, T1N, R7E (SW  $\frac{1}{4}$  NW  $\frac{1}{4}$ ).

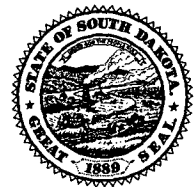
(3) This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Permit No. 2482-2 including the following qualification:

- 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.

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

MAY 14 2004

\_\_\_\_\_  
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](http://www.state.sd.us/denr)

MAY 14 2004

2482-2

LeRoy DiPasquale  
Sioux San Hospital  
3200 Canyon Lake Dr  
Rapid City SD 57702

Dear Mr. DiPasquale:

Enclosed is Water License No. 2482-2. This is the final water right document completing your process of obtaining a Water Right. Included with the 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. 2482-2, 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