

WATER PERMIT NO. 2564-2

Name of Applicant: James K or Carol Hutmacher

Address: 802 E 7th St, Oacoma SD 57365 Phone: 605 734-6631

Amount of Water Claimed: 0.167 cfs Total Acres: NA

Source of Water Supply: groundwater

Water to be used for: geothermal heat and commercial use County: Lyman

Type of Waste Disposal System:

Location: 1 east of Oacoma

PRIORITY Date Received: 8-9-05 Application/License Fee: \$200

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

Remarks:

Diversion Point: SE ¼ NW ¼ Sec 17-T104N-R71W

Land to be Irrigated: NA

Depth of Well: 800 feet deep

Well Driller:

Remarks:

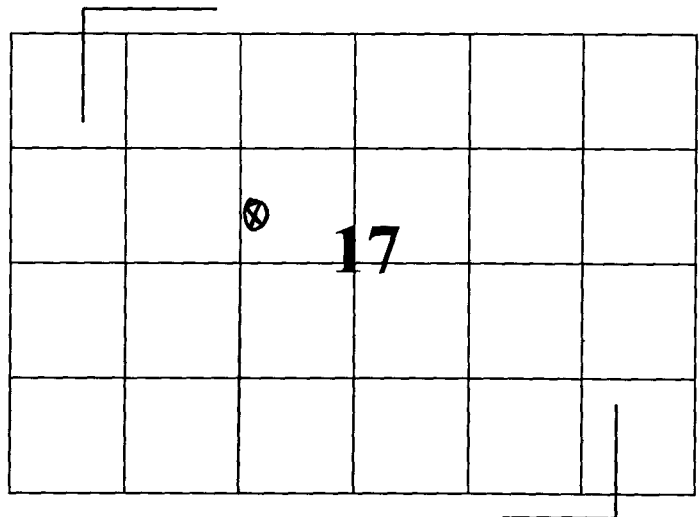
Type of Map: plat

Prepared by: Emmett Kotrba, RLS

Reviewed and the Number Assigned on: 8-10-05

By: Karen Schlaak

Notice of Hearing - date to intervene: _____



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>2564-2</u>	(office use only) Hydrologic Unit <u>10140101</u>
	Basin <u>Missouri River</u>	
	Newspaper <u>Lyman Co. Herald, Presho</u>	

RECEIVED
AUG - 9 2005
WATER RIGHTS
PROGRAM

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: (check one)

☒ New	☐ Vested Right (Use predates Mar 2, 1955)	☐ Future Use Reservation
☐ 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 James K. or Carol Hutmacher Phone 605-734-6631
(check one) ☒ Owner ☐ Tenant/lessee
Mailing Address 802 E 7th St State SD 57365
(Street, RR, or Box and City) (Zip Code)
- 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)
- Source of water supply 1 well Dakota Formation
- Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County Lyman
SE 1/4 of NW 1/4 Sec 17 T104N R71W
- County or counties where water will be used Lyman
- Annual period during which water is to be used annually 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)
Commercial Geothermal Heat

STATE OF SOUTH DAKOTA)
County of Brule) 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, James Hutmacher, 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 James K. Hutmacher

Subscribed and sworn to before me this 7th day of August 20 05

Nancy DeBoer
Notary Public signature

SOUTH DAKOTA
WATER PERMIT NO. 2564-2

Date of first receipt of application August 9, 2005.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 2564-2 to James K or Carol Hutmacher, 802 E 7th St, Oacoma SD 57365 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. 2564-2 appropriates 0.167 cubic feet of water per second from one well to be completed into the Dakota Formation (approximately 800 feet deep) located in the SE ¼ NW ¼ Section 17-T104N-R71W.
2. The water appropriated shall be used for the purpose of commercial and geothermal heating purposes 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. 2564-2 is November 7, 2005.
5. The date from which applicant may claim right is August 9, 2005.
6. One-fifth of the construction is to be completed on or before May 7, 2008.
7. All construction is to be completed on or before November 7, 2010.
8. Water is to be put to beneficial use on or before November 7, 2014.
9. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

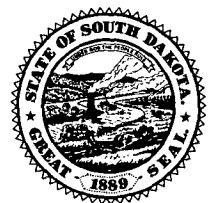
QUALIFICATIONS

1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The well authorized by Permit No. 2564-2 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.

WATER MANAGEMENT BOARD

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

DEC 15 2005
date



(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 7 7/8 4 3/4 4 1/2 Depth 500 ft
- b) Casing Type Steel PVC Diameter 5" 2" Thickness 1.258 3.480
- c) Screen Type PVC Diameter 2" Thickness 3.480
- d) Gravel Pack N/A Length of Gravel Pack N/A
- e) Depth to Top of Water Bearing Material 700 ft
- f) Depth to Water (ground surface to water level) Flow
- g) Distance to nearest existing domestic well:
On applicants property None On property owned by others 1500'

2. Wastewater Disposal System Information

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

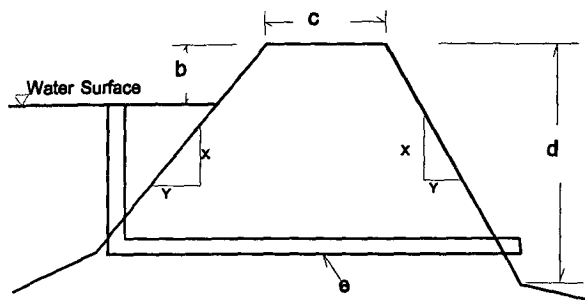
3. Dugout Information

- a) Surface Dimensions _____ Depth _____
- b) Depth to water (ground surface to water level) _____

4. Water Storage Dams

If the proposed water use system contains one or more storage dams, please furnish the information requested below for each dam. The locations of the dams need to be shown on the map submitted with the application.

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



- b) Freeboard _____
- c) Crest Width _____
Crest Length _____
- d) Height _____
- e) Primary Outlet Capacity _____
If pipe, diameter _____
- f) Secondary Spillway Capacity _____
Spillway Width _____
- g) X & Y Slope _____
Upstream _____
Downstream _____
- h) Surface Area of Impoundment _____
- i) Storage _____ Acre Feet
- j) Drainage Area Above Dam _____ Acres

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date August 10, 20 05

RECEIVED OF James K Butmacher, 802 E 7th St., Cactus SD 57365-6502

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

Fee for Application for Permit No. <u>2564-2</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>2564-2</u>	50	00
Fee for Filing Transfer Form _____		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	200.00

No.

000900

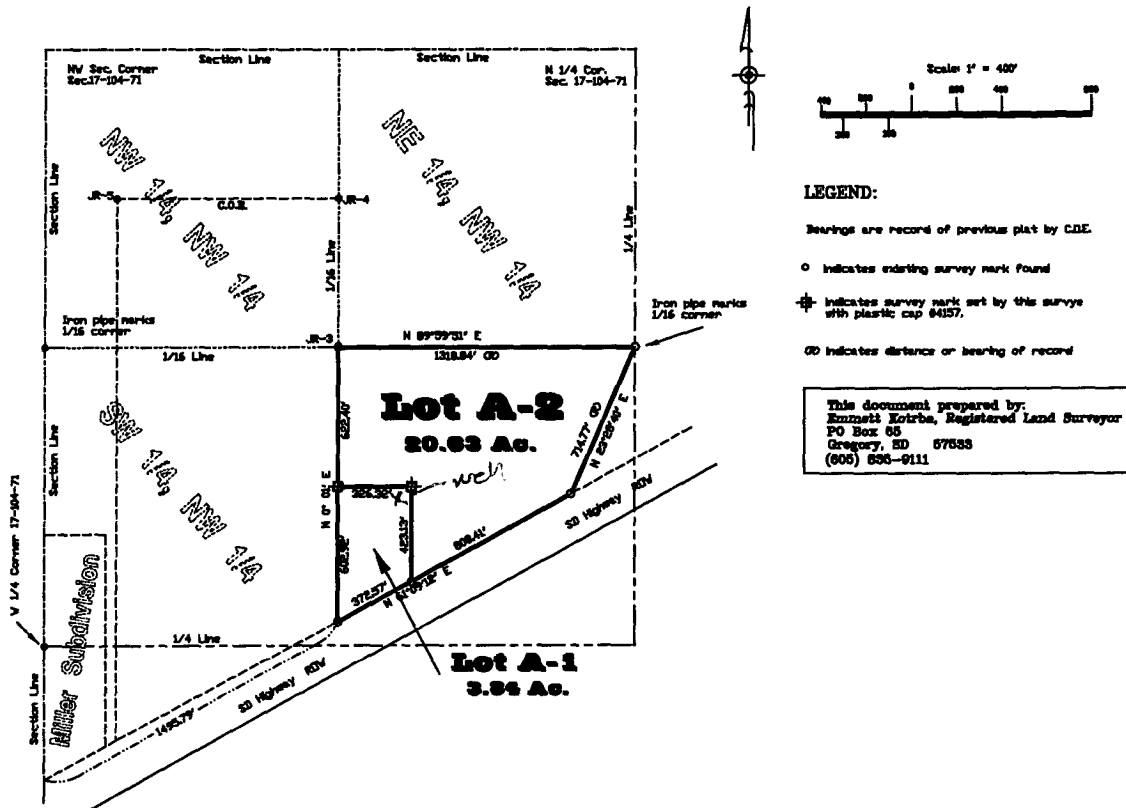
By

Darlene E. Ebel
Chief Engineer

Plat of Lots A-1 and A-2

A Subdivision of Lot A

Located in the SE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 17, T104N, R71W of the 5th P.M.
Lyman County, SD

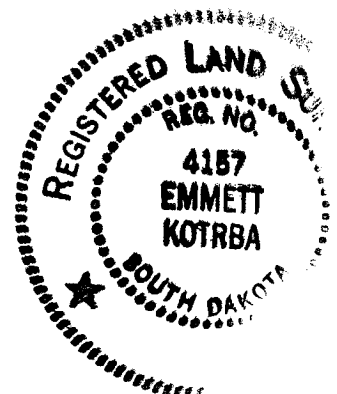


SURVEYORS CERTIFICATE

I, Emmett Kotrba, Registered Land Surveyor, hereby certify that at the request of the owners, I have surveyed and platted LOTS A-1 and A-2, which is a subdivision of Lot A, located in the SE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 17, Township 104 North, Range 71 West of the 5th P.M., Lyman County, SD. The platted Lots have the locations, dimensions, designations and areas as shown on the accompanying plat which is correct to the best of my knowledge and belief.

IN WITNESS, I set my hand and seal this 1st day of June, 2005.

Emmett Kotrba, SD Registration #4157



WATER PERMIT APPLICATION NO. 2564-2
JAMES K. OR CAROL HUTMACHER
SEPTEMBER 28, 2005

Water Permit Application No. 2564-2 proposes to appropriate 0.167 cubic feet per second (cfs) from one well to be completed into the Dakota Formation (approximately 800 feet deep) located in the SE¼ NW¼ Sec. 17, T104N-R71W, Lyman County. The water is for commercial and geothermal heating purposes.

AQUIFER: Dakota Sandstone (DKOT)

AQUIFER CHARACTERISTICS:

The Dakota aquifer consists of the permeable beds of sand and sandstone contained in the Cretaceous aged Dakota Formation. The lithology of the Dakota Formation is quite variable both laterally and vertically, consisting of interbedded sand, sandstone, and shale. It has been postulated that the explanation for this is that the Dakota was deposited in a fluvial environment. The Dakota underlies 1.07 million acres and contains an estimated 28.27 million acre-feet of recoverable water in storage in Lyman County (Allen and others, 1985). The Dakota Formation is areally extensive underlying most of South Dakota (66,500 square miles of the 77,047 total square miles that constitute the State) (Schoon, 1971). The Formation is expected to be around 400 feet thick in this area (Schoon, 1971). A well completed into the Dakota aquifer at this location is expected to flow at the land surface or have a shut in pressure of around 70 psi.

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 has not been quantified for the Dakota aquifer and estimates are 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 confined aquifers 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 noticeable decline in the artesian head. Rothrock, (1938) reported that "There has been a pronounced decline in the artesian head since the first wells were drilled in the area. The decline has not proceeded uniformly but has varied from place to place, depending upon the local draft. It has been greatest in the eastern part of the area, especially in eastern Stanley county in the vicinity of Pierre and in eastern Lyman county in the vicinity of Chamberlain." In fact, records indicate that water levels in the Chamberlain Area have declined over 230 feet since 1891, see Figure 1 (Water Rights, 2005)

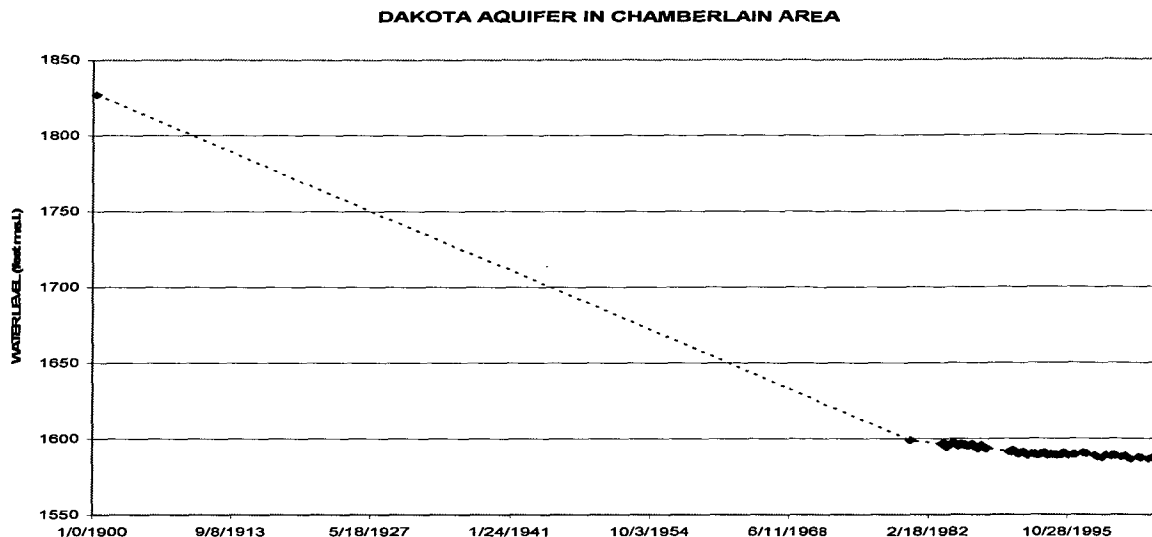


Figure 1. Historic water levels in the Chamberlain Area

The primary reason for declines in the Dakota Formation head pressure is due to water being discharged 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.

The Water Rights Program monitors a number of observation wells that are completed into the Dakota Aquifer. The nearest Water Rights' Observation Well that is completed into the Dakota Aquifer is located approximately four miles southeast of the site proposed by this application. (BL-83A). A hydrograph of water level measurements taken from this well is shown in figure 2.

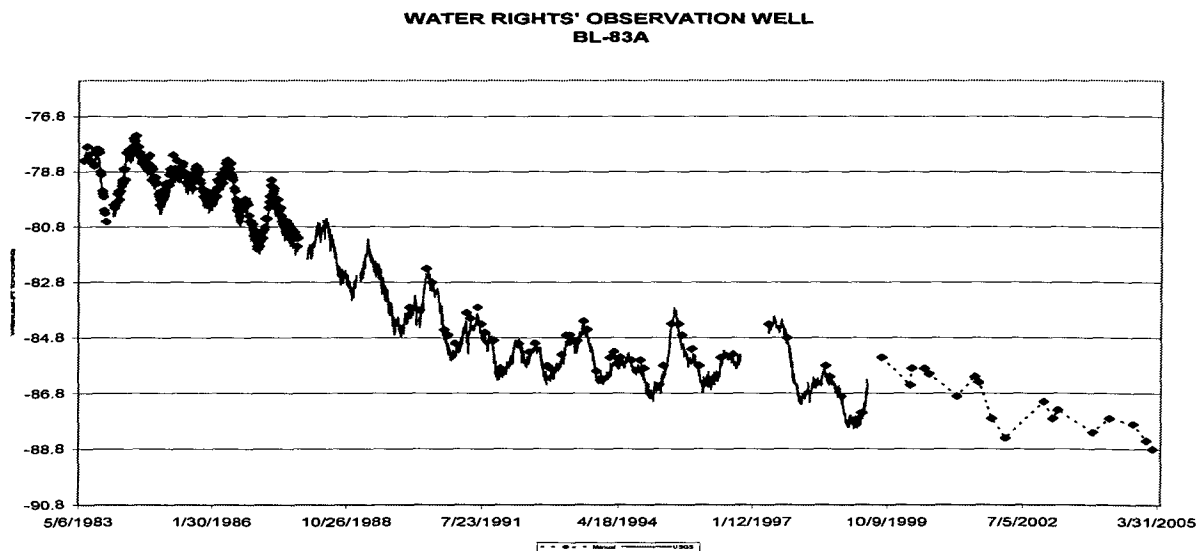


Figure 2. Hydrograph of Water Rights Observation Well completed into the Dakota aquifer approximately four miles from 2564-2

Examination of the hydrograph identifies a decline of head pressure of approximately ten feet since the well was completed in 1983. It should be noted that the source of the data used to construct

both Figures 1 and 2, for the period of 1983 to present was measurements from Water Rights' Observation Well BL-83A. From a historic perspective (see figure 1), a decline of artesian head pressure of only ten feet in the last twenty two years can actually be considered insignificant, and suggests the aquifer is nearing equilibrium.

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 could serve to lessen wasteful discharges.

REVIEW OF EXISTING WATER RIGHTS:

There are a number of domestic wells and three existing Water Rights obtaining water from the Dakota aquifer within four and one-half miles of this well site. Water Rights include:

PERMIT NO	NAME	USE	CFS
4599-3	ST JOSEPH'S INDIAN SCHOOL	GEO	2.22
4829-3	KOA CAMPGROUND	COM	0.02
2357-2	VALU PACT PROPERTIES, LLC	GEO	0.11

In 1981, when the Water Management Board considered Water Permit Application No. 4599-2 for St. Joseph's Indian School, considerable concern was expressed about the declining head pressure of the Dakota in the Chamberlain area. The school evaluated several options to address the issue of declining head pressure, including establishing a secondary use for the water or reinjecting the water after its use for geothermal purposes. Ultimately, St. Joseph's Indian School offered to plug up to 1,000 gallons per minute of flowing Dakota wells to address the Board's concern. Water Right No. 4599-3 was approved with a qualification stating:

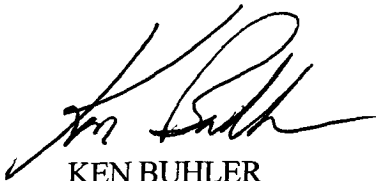
"The permit holder will identify and have agreements to control or plug wells in the area with a total volume of 1000 gpm by May 30, 1981, that in the event that it is not feasible to enter into agreements to plug the wells by May 30, 1981, that they then abandon that option and turn to reinjection of the volume similar to what they are using back into the Dakota Formation".

The school eventually plugged six Dakota aquifer wells in the area that had a combined flow of 1,040 gallons per minute.

There have been four water permit applications appropriating water from the Dakota aquifer approved in Lyman County and eleven in nearby Brule County since the St. Joseph Indian School Water Right was approved. None of these subsequent Dakota aquifer appropriations, including Water Right No. 2357-2, Valu Pact Properties, LLC., which was a geothermal use, have included a similar "control or plug wells in the area" qualifications.

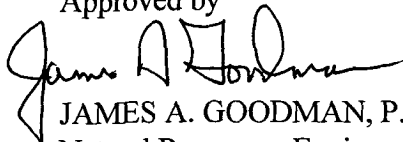
CONCLUSIONS:

1. The Dakota aquifer is a viable aquifer in this area.
2. The average annual recharge rates to the Dakota aquifer has not been quantified and 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 aquifer 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 aquifer 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 wells 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. Any discharge from this water use must be in compliance with the South Dakota's surface water discharge rules (ARSD Article 74:52).



KEN BUHLER
Natural Resources Engineer

Approved by



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

REFERENCES:

Allen, J.C., Iles, D.L., and Petres, A.K., 1985, Analysis of Groundwater and Streamflow Data Western Dakotas Region of South Dakota, Tasks 3A.B.C. and 4A.B.: Groundwater Resource Inventory: South Dakota Department of Water and Natural Resources

Rothrock, E.P, 1938, Artesian Conditions in Western Central South Dakota, South Dakota Geologic Survey Report of Investigations No. 26, Vermillion SD

Schoon, R.A., 1971, Geology and Hydrogeology of the Dakota Formation in South Dakota, South Dakota Geologic Survey Report of Investigations No. 104, 55 p.

Water Rights Program, 2005, "Observation Well Files", SD DENR-Water Rights Program, Joe Foss Building, Pierre, SD, 57501

Water Rights Program, 2005, "Water Permit Files", SD DENR-Water Rights Program, Joe Foss Building, Pierre, SD, 57501



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
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. 2564-2, James K and Carol Hutmacher**

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. 2564-2, James K and Carol Hutmacher, 802 E 7th Street, Oacoma SD 57365.

The Chief Engineer is recommending APPROVAL of Application No. 2564-2 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 qualifications:

1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The well authorized by Permit No. 2564-2 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.

See report on application for additional information.

Garland Erbele, Chief Engineer
October 12, 2005

NOTE: No chemicals, such as corrosion inhibitors, shall be added to the geothermal water without prior written permission by the Surface Water Quality Program, DENR (Phone # 605 773-3351). This requirement is used to control the discharge of potential toxics regulated by the Administrative Rules of South Dakota Article 74:52.

Publisher's Affidavit of Publication

OK

STATE OF SOUTH DAKOTA)
)SS
COUNTY OF LYMAN)

Lucy Halverson, of said county and state being duly sworn on her oath says: The Lyman County Herald is a weekly newspaper of general circulation and published in Presho, Lyman County, and State of South Dakota; and has been such newspaper during the times hereinafter mentioned; That said newspaper is a legal weekly, that it has a bonafide circulation of more than 200 copies weekly, that it has been published within said County of Lyman more than fifty-two successive weeks next prior to publication of the notice hereinafter mentioned and maintained at the place of publication; That I, the undersigned am editor of said newspaper, in charge of the advertising department thereof, and have personal knowledge of all the facts stated in this affidavit; that the advertisement headed:

Notice of Application

2564-2

a printed copy of which is hereto attached and published in the said newspaper for 2 consecutive week(s).

The first publication of said notice in said newspaper aforesaid was on Wednesday, the 19 day of Oct, A.D., 2005 and that the succeeding publications were severally

Wednesday, the _____ day of _____	A.D., 2005
Wednesday, the _____ day of _____	A.D., 2005
Wednesday, the _____ day of _____	A.D., 2005
Wednesday, the _____ day of _____	A.D., 2005
Wednesday, the _____ day of _____	A.D., 2005
Wednesday, the _____ day of _____	A.D., 2005
Wednesday, the _____ day of _____	A.D., 2005
Wednesday, the _____ day of _____	A.D., 2005

and the last publication on Wednesday, the 26 day of Oct, 2005, that the full sum of fees charged for publishing the same, to-wit; the sum of \$ 38.19 insures solely to the editor of The Lyman County Herald. That no agreement or understanding for any division thereof had been made with any other person, and that no part thereof has been agreed to be paid to any person whatsoever.

Lucy Halverson
Editor
Notary Public

Subscribed and sworn to before me this 20 day of Oct, 2005

My Commission expires _____, 200__

MICHAEL J. SPRENGER
NOTARY PUBLIC - SOUTH DAKOTA
My Commission Expires
March 27, 2009

RECEIVED

WATER RIGHTS
PROGRAM

ber 19, 2005

Notices

NOTICE OF APPLICATION NO. 2564-2 to Appropriate Water

Notice is given that James K and Carol Hutmacher, 802 E 7th St, Oacoma SD 57365 have filed an application for a water permit to appropriate 0.167 cubic feet of water per second from one well to be completed into the Dakota Formation (approximately 800 feet deep) located in the SE 1/4 NW 1/4 Section 17-T104N-R71W. The water is for commercial and geothermal heating purposes.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2564-2 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 November 7, 2005.

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**

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

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

October 13, 2005

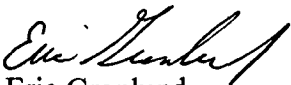
James K and Carol Hutmacher
802 E 7th St
Oacoma SD 57365

Dear Mr. & Mrs. Hutmacher:

Water Permit Application No. 2564-2 for geothermal heat and commercial use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Publisher of the Lyman County Herald printed at Presho, SD (Ph # 605-895-6397). 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 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. 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.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

October 13, 2005

Lyman County Herald
PO Box 518
Presho SD 57568

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 2564-2 to Appropriate Water to be published twice. Please publish the first notice on October 19, 2005 with the second publication 7 days later. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

The applicant must verify to you that the notice is to be published, before you make the first publication. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is James & Carol Hutmacher, 802 E 7th St., Oacoma SD (Ph # 605-743-6631).

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. 2564-2

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

Date _____

We are in receipt of your letter of October 13, 2005 enclosing Notice to Appropriate Water by Application No. 2564-2 which was first published in our issue of _____. **ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.**

Name

Newspaper

Instruction to Newspaper - Publish first Notice on October 19, 2005 with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF APPLICATION NO. 2564-2 to Appropriate Water

Notice is given that James K and Carol Hutmacher, 802 E 7th St, Oacoma SD 57365 have filed an application for a water permit to appropriate 0.167 cubic feet of water per second from one well to be completed into the Dakota Formation (approximately 800 feet deep) located in the SE ¼ NW ¼ Section 17-T104N-R71W. The water is for commercial and geothermal heating purposes.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2564-2 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 November 7, 2005.

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**

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

DEC 15 2005

James K or Carol Hutmacher
802 E 7th St
Oacoma SD 57365

Dear Mr. & Mrs. Hutmacher:

Enclosed is Water Permit No. 2564-2 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

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

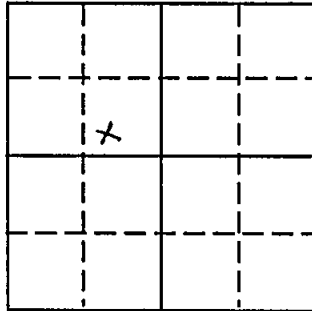
2564-2

Location SE $\frac{1}{4}$ NW $\frac{1}{4}$ Sec 17 Twp 104N Rg 71W

County

Lyman

North



Please mark well location with an "X"

Well Completion Date

8/7/2006

1 Mile

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

? 400.0 ft. from sewer main (Identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

Rotary

CASING DATA:

☒ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
15.0 LB/FT	5.00 IN	0.0 FT	614.0 FT	7.88 IN
LB/FT	2.00 IN	0.0 FT	686.0 FT	4.50 IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Portland	102	15.6 Lb/gal	0.0 Ft	614.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure
pressure thru 5"

SCREEN:

☒ Perforated pipe ☐ Manufactured
Diameter 2.00 Inches Length 70.0 FeetMaterial PVC sch 80Slot Size 5/16 Set From 616.0 Feet to 686.0 Feet

Other information

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

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

state

Well Owner: Jim Hutmacher

Business Name:

Address: 802 E. 7 St.City, State, Zip: Oacoma SD 57365

WELL LOG:

DEPTH

FORMATION	FROM	TO
Clay	0	9
Pierre	9	98
Niobrara	98	322
Carlile	322	423
Greenhorn	423	475
Graneros	475	603
Dakota	603	686

STATIC WATER LEVEL 0.0 FEETIf flowing: closed in pressure 58.00 PSIGPM flow 120.0 through 2.00 Inch pipeControlled by ☒ Valve ☒ Reducers ☐ OtherReduced flow rate 25.0 GPM

Can well be completely shut in? yes

WELL TEST DATA:

☐ Pumped Describe:
☐ Bailed
☐ Other

Pumping Level Below Land Surface

Ft. After _____ Hrs. pumped _____ GPM

Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

Permitted Well

This well was drilled under license # 213

And this report is true and accurate.

Drilling firm: Hutmacher Drilling, Inc.

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date: 8-27-06

RECEIVED

AUG 27 2006

WELL

RECEIVED

NOV 16 2010

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

MAIL TO: PMB 2020
DENR - Water Rights Program
523 E Capitol Ave
Pierre, SD 57501-3182
ph. (605) 773-3352

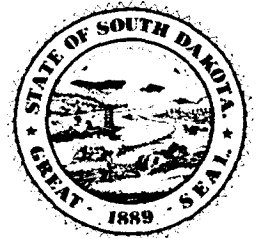
Date 11-05-2010FROM: James K. or Carol Hutmacher
(name)802 E. 7th St.
(address)

<u>Oacoma</u>	<u>SD</u>	<u>57365</u>	<u>605-734-6631</u>
(city)	(state)	(zip)	(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. 2564-2 states that the water use system is to be constructed by11-07-2010, and water is to be put to beneficial use by 11-07-2010
(date) (date)The water use system was completed on Sept. 1, 2008
(date)Applying the water to beneficial use was completed on Sept. 1, 2010
(date)

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





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

November 16, 2010

2564-2

James or Carol Hutmacher
802 E 7th St
Oacoma SD 57365

Dear Mr. & Mrs. Hutmacher:

I am writing to acknowledge receipt of the "Notice of Completion of Works" form that you sent in to let us know that you are completed with the system authorized under Water Permit No. 2564-2.

The system is now ready for inspection. Inspections are done on a county-by-county basis as staff time permits. You have done everything you need to do and the intervening time between the completion of your project and the staff inspection has no bearing on your water permit.

Someone from our office will contact you prior to the inspection to set up a time that is convenient for you. If you have any questions, please contact me.

Sincerely,

A handwritten signature in black ink that reads "Genny McMath". The signature is written in a cursive, flowing style.

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

Water Permit No. 2564-2
Missouri 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, September 29, 2015, made a thorough examination of the water use system constructed by James K or Carol Hutmacher of 802 E 7th St., O'coma, SD 57365 holder of Permit No. 2564-2, bearing the priority of August 9, 2005 authorizing the diversion of 0.167 cu. ft. per second of water from the Dakota Formation for Commercial and Geothermal Heating purposes, in Lyman County.

Inspection contact & relationship **Jim Hutmacher**
to permit holder, if applicable:

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Hutmacher Drilling, Inc
- 2) No. of Wells 1
- 3) Depth(s) 686 feet
- 4) Well log is available Y

Casing:

- 1) Diameter 5 inches
- 2) Length 616 feet
- 3) Type Steel

Screen:

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

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

- 1) Type Buried Pipe

C. 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:

Well: Approximately 1,955 feet south and 1,650 feet east of the NW corner of Section 17-T104N-R71W (N 43.81301, W -99.35943) (SE ¼ NW ¼)

The works are capable of diverting and conveying to the place of use **0.167** cu. ft. per second of water which is to be used for **Geothermal and Commercial Use**.

The license should be issued for **0.167** cfs.

All structures, wells and lands on map **Y**

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

Water from the well is used for geothermal use for the building and also used for commercial uses related to the business. The well is valved and can be completely shut in.



Mike DeFea

Natural Resources Engineer II
DENR, Water Rights Program

Date report completed: **March 1, 2016**

James K or Carol Hutmacher
Water Permit No. 2564-2



0 0.125 0.25 0.5
Miles

Mike DeFea

Mike DeFea
Natural Resources Engineer
DNR, Water Rights Program
March 1, 2016



South Dakota
Department of Environment
& Natural Resources
Protecting SD's Tomorrow... Today



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

MAR 22 2016

2564-2

James K and Carol Hutmacher
802 E 7th St
Oacoma SD 57365

Dear Mr. & Mrs. Hutmacher:

Enclosed is Water License No. 2564-2. 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.

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

Sincerely,

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

enclosures

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 2564-2

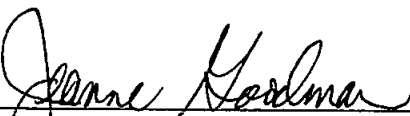
(1) James K or Carol Hutmacher, 802 E 7th St, Oacoma SD 57365 made Application No. 2564-2, August 9, 2005 for a water permit to divert 0.167 cubic feet of water per second from one well-Dakota Formation, Lyman County, South Dakota for commercial and geothermal heating purposes. Permit No. 2564-2, with a priority date of August 9, 2005 was approved November 7, 2005 and issued to the applicants for diversion of water with construction of the described water supply system to be completed on or before November 7, 2010 and for the application to beneficial use of water on or before November 7, 2014.

(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 holders and/or owners of Water Right No. 2564-2 is issued a license, bearing a priority date of August 5, 2005 to appropriate 0.167 cubic feet of water per second from one well-Dakota Formation for commercial and geothermal heating purposes.

The diversion point is located: approximately 1,955 feet south and 1,650 feet east of the NW corner of Section 17-T104N-R71W (SE 1/4 NW 1/4).

(3) This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Permit No. 2564-2 including the following 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.
- The well authorized by Permit No. 2564-2 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28. *The well was drilled by Hutmacher Drilling Inc. August 7, 2006. A copy of the log is on file with the Water Rights Program.*



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

MAR 22 2016

date

