

WATER PERMIT NO. 2614-2

Name of Applicant: City of New Underwood

Address: PO Box 278, New Underwood

Phone: 605 754-6777

Amount of Water Claimed: 0.056 cfs

Total Acres: NA

Source of Water Supply: groundwater (2 wells)

Water to be used for: irrigation

County: Pennington

Type of Waste Disposal System:

Location: in New Underwood

PRIORITY

Date Received: 4-10-07

Application/License Fee: \$100

Corrected Application Received:

Period of Annual Use: January 1 – December 31

Remarks: for geothermal heat system at community center

Diversion Point: SW ¼ NE ¼ Sec 31-T2N-R11E

Land to be Irrigated: NA

Depth of Well: 30 feet deep

Well Driller: : Buzz's Well Drilling

Remarks:

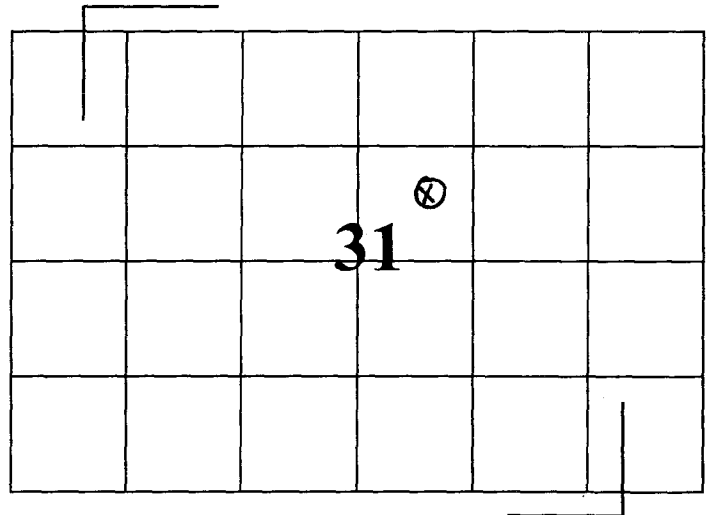
Type of Map: plat

Prepared by: Gregory A Hall, PWD

Reviewed and the Number Assigned on: 4-11-07

By: Karen Schlaak

Notice of Hearing - date to intervene: _____



Mail to: Water Rights Program Joe Foss Building 523 E. Capitol Pierre, SD 57501-3181 (605) 773-3352	No. <u>2614-2</u> (office use only) Hydrologic Unit <u>10120111</u>
	Basin <u>Upper Cheyenne</u>
	Newspaper <u>Rapid City Journal</u> PO Box <u>450</u>
	<u>605-394-8300</u> <u>57709</u>

RECEIVED
APR 10 2007
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: ☒ 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 City of New Underwood Phone (605) 754-6747
(check one) ☒ Owner ☐ Tenant/lessee
Mailing Address P.O. Box 278 New Underwood State SD 57761-0278
(Street, RR, or Box and City) (Zip Code)
- Amount of water claimed 0.056 *CFS or 25 **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 Ground water
- Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County Pennington
2 wells in SW1/4 NW1/4 section 31-T2N-R11E
- County or counties where water will be used Pennington
- Annual period during which water is to be used January 1 to December 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)
Installing Pump and Dump Geothermal Heating System for New Underwood Community Center. Drilled 2 wells and will pump up to 25GPM from one well through a heat exchanger back to the second 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, Gregory A. Hall, 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 Gregory A. Hall

Subscribed and sworn to before me this 9th day of April 2007

Meri Jo Anderson
Notary Public signature

My Commission Expires: 10-4-11

SOUTH DAKOTA
WATER PERMIT NO. 2614-2

Date of first receipt of application April 10, 2007.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 2614-2 to City of New Underwood, PO Box 278, New Underwood SD 57761-0278 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. 2614-2 appropriates 0.056 cubic feet of water per second from two wells completed into the Quaternary Alluvium (30 feet deep) located in SW ¼ NE ¼ Section 31-T2N-R11E.
2. The water appropriated shall be used for the purpose of a geothermal heat system at the New Underwood Community Center 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. 2614-2 is July 9, 2007.
5. The date from which applicant may claim right is April 10, 2007.
6. One-fifth of the construction is to be completed on or before January 9, 2010.
7. All construction is to be completed on or before July 9, 2012.
8. Water is to be put to beneficial use on or before July 9, 2016.
9. 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

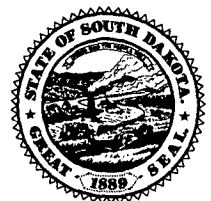
By: _____

Garland Erbele

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

JUL 31 2007

date



(type or print in ink)

Well #1

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 30" Depth 30'
- b) Casing Type Plastic Diameter 12" Thickness 1/4"
- c) Screen Type Perforated pipe Diameter 12" Thickness 1/4"
- d) Gravel Pack yes Length of Gravel Pack 15'
- e) Depth to Top of Water Bearing Material 14'
- f) Depth to Water (ground surface to water level) 12'
- g) Distance to nearest existing domestic well:
On applicants property 1700' On property owned by others _____

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

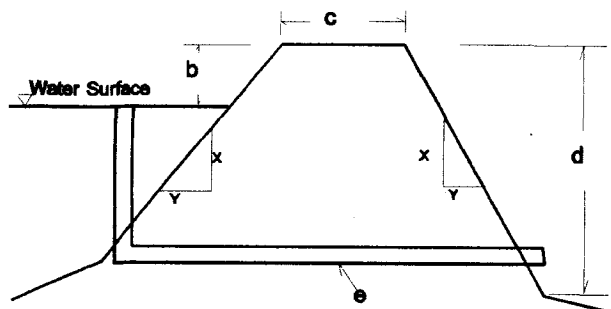
3. Dugout Information

- 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

(Complete applicable portions only)

(type or print in ink)

*Well #2***1. Well Information - Proposed Construction**

- a) Drill Hole Diameter 30" Depth 30'
- b) Casing Type Plastic Diameter 12" Thickness 1/4"
- c) Screen Type Perforated pipe Diameter 12" Thickness 1/4"
- d) Gravel Pack yes Length of Gravel Pack 15'
- e) Depth to Top of Water Bearing Material 14'
- f) Depth to Water (ground surface to water level) 11'
- g) Distance to nearest existing domestic well:
- On applicants property 1700' On property owned by others _____

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

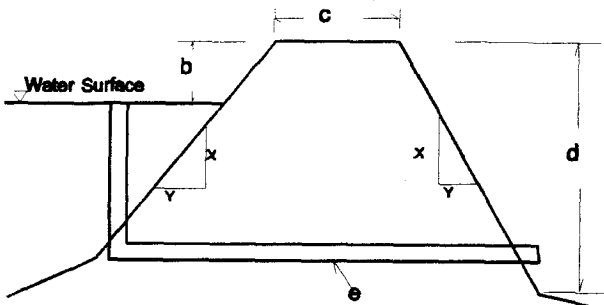
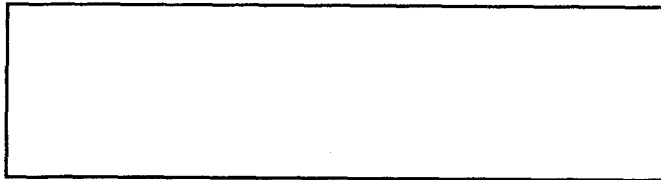
3. Dugout Information

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

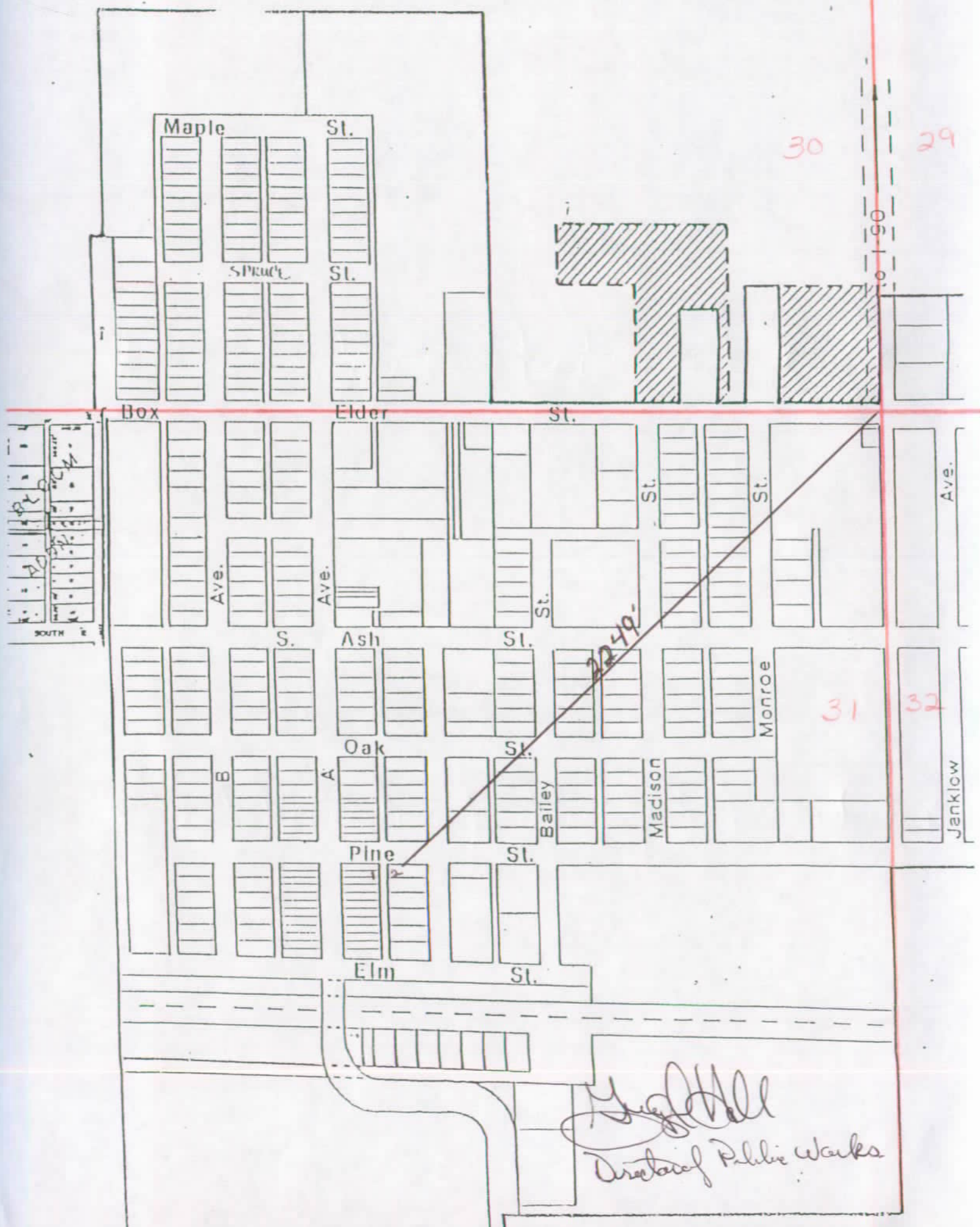
4. Water Storage Dams

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



Maple

St.

Spruce

St.

Box

Elder

St.

Ave.

Ave.

St.

St.

St.

Ave.

St.

Ash

St.

Monroe

Oak

St.

Bailey

Madison

Pine

St.

Elm

St.

30

29

31

32

2249

H. J. Hall
Director Public Works

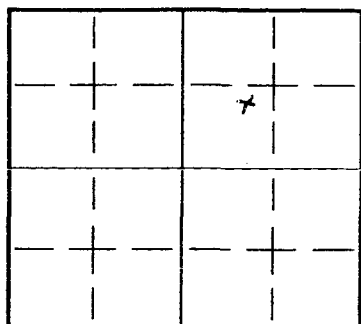


SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

Location Bk 6 lot 18 1/4 Sec 31 Twp 2N Rg 11ECounty Pennington

Please mark well location with an "X"

Well 44
East (2)

Well-Completion Date _____

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? 200 ft. from sewer line (identify source).

PROPOSED USE:

☐ Domestic/Stock ☒ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well
METHOD OF DRILLING: backhoe boring machineCASING DATA: ☐ Steel ☒ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>1</u> LB/FT	<u>12</u> IN	<u>0</u> FT	<u>30</u> FT	<u>30"</u> IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Waterproof Grout</u>	<u>8</u>	<u>16</u> lb./gal	<u>7</u> ft	<u>10</u> ft
_____	_____	_____ lb./gal	_____ ft	_____ ft

Describe grouting procedure _____

SCREEN: ☒ Perforated pipe ☐ ManufacturedDiameter 12 IN Length 15 FEETMaterial plasticSlot Size 0.6 Set From 12 Feet to 30 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: Clorox_____
NO, Why Not? _____

Laboratory sent to for water quality analysis _____

Well Owner: City of New UnderwoodBusiness Name: City of New UnderwoodAddress: Box 278New Underwood, SD, 57761

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
<u>top soil</u>	<u>0</u>	<u>4</u>
<u>brown clay</u>	<u>4</u>	<u>10</u>
<u>large flake clay</u>	<u>10</u>	<u>20</u>
<u>blatky shale</u>	<u>20</u>	<u>30</u>

STATIC WATER LEVEL 11 Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☒ PumpedDescribe: 5 hp gas 2" pump☐ Bailed☐ Other _____

Pumping Level Below Land Surface

23 ft. After 1 Hrs. pumped 25 GPM

_____ ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate _____ GPM

REMARKS

this well was
gravel packedThis well was drilled under license # 675

And this report is true and accurate.

Drilling firm Buzz's Well Drilling

Signature of License Representative:

Oliver H. Johnson

Signature of Well Owner or Equitable Property Holder:

[Signature]DPaeDate: March 27, 2007

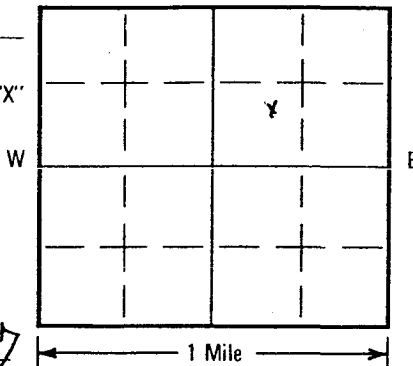
SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

Location BLK 6 Lot 2 1/4 Sec 31 Twp 2N Rg 11ECounty Ponnington

North

Please mark well location with an "X"

Well # 117
West

Well-Completion Date

March 22 07

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.) 200 ft ft. from Power Lines (identify source).

PROPOSED USE:

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

METHOD OF DRILLING:

bucket boring machine

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>6</u> LB/FT	<u>12</u> IN	<u>0</u> FT	<u>30</u> FT	<u>30</u> IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
<u>expanding bentonite</u>	<u>10</u>	<u>16</u> lb./gal	<u>7</u> ft	<u>10</u> ft
_____	_____	_____ lb./gal	_____ ft	_____ ft

Describe grouting procedure _____

SCREEN: ☒ Perforated pipe ☐ ManufacturedDiameter 12 IN Length 15 FEETMaterial PlasticSlot Size 20 Set From 10 Feet to 30 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: chlorox☐ NO, Why Not? _____

Laboratory sent to for water quality analysis _____

Well Owner:

Business Name:

Address:

City of New Underwood
City of New Underwood
Box 278
New Underwood, SD, 57761

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
<u>top soil</u>	<u>0'</u>	<u>4'</u>
<u>brown clay</u>	<u>4'</u>	<u>10'</u>
<u>Large stone/chalk</u>	<u>10'</u>	<u>22'</u>
<u>Black shale</u>	<u>22'</u>	<u>30'</u>

STATIC WATER LEVEL

12

Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☒ Pumped

Describe:

5 hp gas 2"
pump☐ Bailed☐ Other

Pumping Level Below Land Surface

22 ft. After 1 Hrs. pumped 22 GPM

_____ ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate _____ GPM

REMARKS

this well has
gravel packedThis well was drilled under license # 677

And this report is true and accurate.

Drilling firm

Signature of License Representative

Signature of Well Owner or Equitable Property Holder:

Date:

March 27, 2007

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 4/10, 2007

RECEIVED OF CITY OF NEW UNDERWOOD PO BOX 278 NEW UNDERWOOD SD 57761

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

Fee for Application for Permit No. <u>2614-2</u> 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. <u>2614-2</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	100	00

No.

03027

By

Paula Erdale
Chief Engineer

Water Rights Program - File Documentation

NAME: Greg Hall, Public Works Director

ADDRESS: City of New Underwood

DATE: 4-11-07 **COUNTY:** PE **TELEPHONE:** 605 754-6777

RE: pending application

COMMENTS:

I called Greg Hall with the City of New Underwood who indicated that the location of the wells as indicated on the map was correct. The wells are located in the SW ¼ NE ¼ Section 31-T2N-R11E. I told Mr. Hall that I would make the correction on the application.



Karen Schlaak
Environmental Scientist



**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. 2614-2, City of New Underwood**

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. 2614-2, City of New Underwood, c/o Gregory A. Hall, Public Works Director, PO Box 278, New Underwood SD 57761-0278.

The Chief Engineer is recommending APPROVAL of Application No. 2614-2 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
June 7, 2007

NOTE: The injection of the water back into the ground may require authorization from the Environmental Protection Agency. I encourage you to contact Douglas Minter at EPA in Denver at (303) 312- 6079 for information on requirements for operation of a Class V injection well.

REPORT ON APPLICATION NO. 2614-2

For City of New Underwood

May 30, 2007

Application 2614-2 proposes to appropriate 0.056 cubic feet of water per second (cfs) from two wells to be completed into the Quaternary Alluvium aquifer (approximately 30 feet deep) located in the SW¼ NE¼ Section 31, T2N-R11E in Pennington County. The water is for a geothermal heat system at the New Underwood Community Center.

AQUIFER – QUATERNARY ALLUVIUM (ALQ)

The alluvium consists of sand, gravel and boulders with silts and clays overlying the Pierre Shale. The alluvium is under water table conditions and is hydraulically connected to Box Elder Creek. Recharge to the aquifer is accomplished through precipitation falling directly on the alluvium, runoff from surrounding areas and streamflow losses from the creek.

The Water Rights Program monitors an observation well completed into the Quaternary Alluvium aquifer located within close proximity of this application. The observation well used for this report (PE-58E) is located approximately 5½ miles west of this site. Water levels for this well show good response to seasonal climatic conditions, that is, rising water levels during wet periods (recharge) and gradually declining water levels during dry periods. A hydrograph for PE-58E is included in this report and labeled as Figure 1 (Water Rights, 2007).

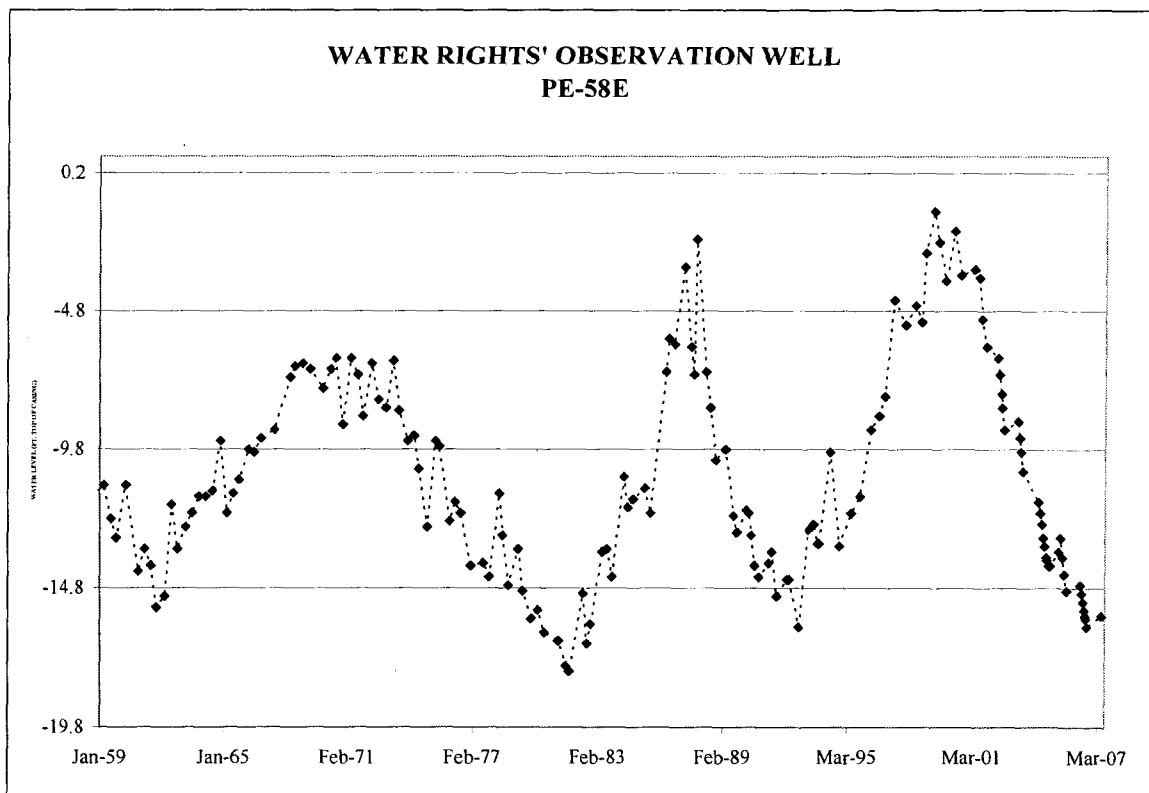


Figure 1. Hydrograph of observation well PE-58E.

REVIEW OF EXISTING WATER PERMITS/RIGHTS

There are three existing Water Rights appropriating ground water within a two mile radius of this application. A list of the permits is included with this report labeled as Table 1. There are no other existing water permits/rights in this area which obtain water from the alluvium. Interference should not be a problem.

Table 1. Table identifying permits within a two mile radius of the application.

PERMIT NO	LAST NAME	AQUIFER	USE	CFS
660-2	NEW UNDERWOOD	INKR	MUN	0.45
1947-2	NEW UNDERWOOD	INKR	MUN	0.41
2165-2	TIGHTLINE LAKE PTRSHP	INKR	COM	0.07

The Federal Safe Drinking Water Act protects all sources of drinking water, including underground sources (aquifers). The underground injection control program regulates any injection of waste into the subsurface through five classes of wells. South Dakota Codified Law 45-9-11 and Administrative Rules of South Dakota 74:10:09 contain statutes and regulations for Class II injection wells. These are the only wells for which South Dakota has primary enforcement authority. All other types of wells are currently regulated by United States Environmental Protection Agency (EPA).

The applicant has described the project as a "Pump and Dump Geothermal Heating System" where two wells are drilled, pumping from one well through a heat exchanger and injected back into the second well. According to EPA injection well classifications, the second well would be considered a Class V Injection Well. The city will need to contact Douglas Minter at (303) 312-6079 for information on the EPA permitting process.

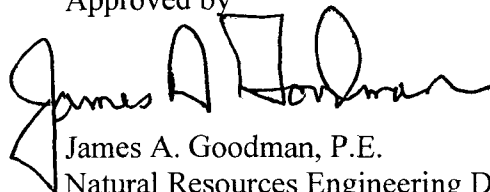
CONCLUSIONS

1. The Quaternary Alluvium aquifer is a viable groundwater source and water is available for this appropriation.
2. Interference should not be a concern because of the relatively small pumping rate and the distance between existing wells.
3. These are existing wells and both appear to be constructed according the SD Well Construction Standards.
4. According to EPA injection well classifications, the disposal well would be considered a Class V Injection Well. The city will need to contact Douglas Minter at (303) 312-6079 for information on the EPA permitting process.



Aaron R. Tieman
Natural Resources Engineer

Approved by



James A. Goodman, P.E.
Natural Resources Engineering Director

BIBLIOGRAPHY

Water Right, 2007, Unpublished Observation Well Data, SD DENR, DES, Water Rights Program, Pierre, SD, 57501.

Form 8

RECEIVED

JUN 28 2007

WATER RIGHTS
PROGRAM

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 20, 2007

June 27, 2007

Cost of Printing Ninety-three dollars

and forty-eight cents (\$93.48)

Patricia K. Van Patten
(Signature)

Legal Advertising Rep.
(Title)

06/27/07
(Date Signed)

June 20, 27 L2625263

NOTICE OF APPLICATION NO. 2614-2 TO APPROPRIATE WATER

Notice is given that the City of New Underwood, P.O. Box 278, New Underwood, SD 57761-0278, has filed an application for a water permit to appropriate 0.856 cubic feet of water per second from two wells completed into the Quaternary Alluvium (30 feet deep) located in the SW1/4NE1/4 Section 31, T2N-R11E. The water is for a geothermal heat system at the New Underwood Community Center.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2614-2 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 these applications, 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 recommendations 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 July 9, 2007.

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

June 11, 2007

Rapid City Journal
PO Box 450
Rapid City SD 57709

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 2614-2 to Appropriate Water to be published twice. Please publish the first notice on June 20, 2007 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 City of New Underwood, Greg Hall, PO Box 278, New Underwood, SD 57761 (Ph # 605-754-6777).

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. 2614-2

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

Date _____

We are in receipt of your letter of June 11, 2007 enclosing Notice to Appropriate Water by Application No. 2614-2 which was first published in our issue of _____. **ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.**

Name

Newspaper



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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.

June 11, 2007

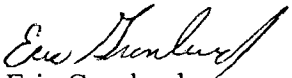
Greg Hall
City of New Underwood
PO Box 278
New Underwood SD 57761

Dear Mr. Hall:

Water Permit Application No. 2614-2 for municipal 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 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 report on the application is 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 applications.

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 20, 2007 with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF APPLICATION NO. 2614-2 to Appropriate Water

Notice is given that the City of New Underwood, PO Box 278, New Underwood SD 57761-0278 has filed an application for a water permit to appropriate 0.056 cubic feet of water per second from two wells completed into the Quaternary Alluvium (30 feet deep) located in SW ¼ NE ¼ Section 31-T2N-R11E. The water is for a geothermal heat system at the New Underwood Community Center.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2614-2 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 these applications, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.

Any person interested in opposing or supporting this application or recommendations 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 July 9, 2007.

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

JUL 3 1 2007

City of New Underwood
PO Box 278
New Underwood SD 57761

Dear Mr. Hall:

Enclosed is Water Permit No. 2614-2 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

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 2614-2

I have this day, June 30, 2017 made a thorough examination of the water use system constructed by the City of New Underwood, P.O. Box 278, New Underwood, SD 57761-0278 of Permit No. 2614-2, bearing the priority of 4/10/2007 authorizing the diversion of .056 cu. ft. per second of water from 2 wells for geothermal heat purposes, in Pennington County.

Inspection contact & relationship to permit holder, if applicable: **Tim Hall, Director of Public Works**
605-754-6778

A. Works used to divert the water:

	<u>Well #1 (west)</u>	<u>Well#2 (east)</u>
1) Well Drilling Firm:	-----Buzz's Well Drilling-----	
2) Date:	March 2007	March 2007
3) Depth(s)	30 ft.	30 ft.
4) Well log is available:	Yes	Yes
5) Casing	12 in.	12 in.
6) Casing Material	PVC	PVC
7) Static water level	12 ft.	11 ft.
8) Pump Model	F&W 4F10S05	none
9) Size	4 in.	----
10) Capacity	15 gpm	Injection well
11) Horsepower rating	½	----

Comments: Well #1 has a pump installed (model # shown is believed correct) and well #2 is used for return flow (injection well) from the geothermal heating/cooling system. The pump shown is a 10 gpm pump producing 15 gpm as installed.

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

Plastic piping to the geothermal units

C. Works used to apply water to beneficial use:

The water is used at the New Underwood Community Center for heating and cooling the facility and for no other uses.

D. Compliance with Permit Requirements:

1) Permit qualifications being abided by: **Yes**

List any extended period of nonuse: **none**

3) Exceptions to compliance are: **none**

E. Condition and Location:

1. The system is in **good** condition with the points of diversion located as follows:

Well # 1 (west): 1,565' S and 1,720' W of NE corner Section 31 T2N R11E (44.092007, -102.835721)

Well # 2: (east): 1,566' S and 1,675' W of NE corner Section 31 T2N R11E (44.091997, -102.835535)

2. The works are capable of diverting and conveying to the place of use **0.033** cu. ft. per second of water (**15 gpm**) which is to be used for **geothermal** use and the license should be issued for **0.033** cfs .

3. All structures, wells and lands on map: **No, wells only**

F. Comments or other permit(s) associated with the project: The city will replace the water tight cap missing on the east well.



Steven Quissell
Water Rights Inspector
DENR Water Rights Program

Date report completed: **6/30/2015**

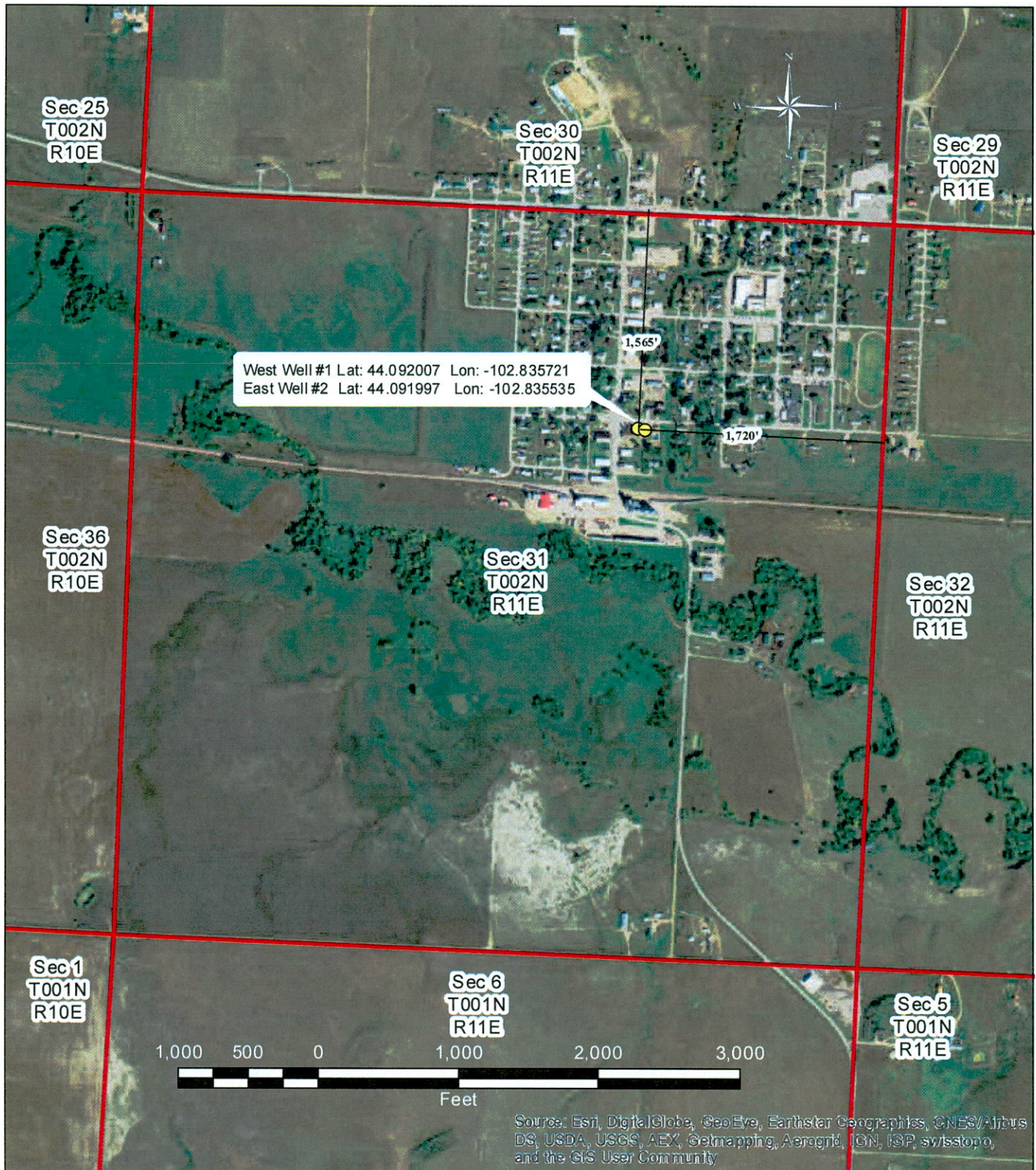


West well and Community center background
East well in foreground



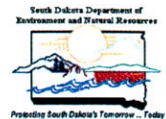
geothermal system

Water Right # 2614-2
City of New Underwood
6/30/2017



Steven Quissell

Steven Quissell
Water Rights Inspector
DENR Water Rights Program





DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
<http://denr.sd.gov>

AUG 03 2017

2614-2

Tim Hall, Public Works Director
City of New Underwood
PO Box 278
New Underwood SD 57761

Dear Mr. Hall:

Enclosed is Water License No. 2614-2. This is the final water right document completing the process of obtaining a Water Right. Included with the license is a map prepared by the staff engineer who conducted the field investigation.

For your information SDCL 46-6-27 requires that if in the future, the owner of an existing well, 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,

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

enclosures

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 2614-2

(1) The City of New Underwood, PO Box 278, New Underwood SD 57661-0278 made Application No. 2614-2, April 10, 2007 for a water permit to divert 0.056 cubic feet of water per second from ground water, two wells (Quaternary Alluvium), Pennington County, South Dakota for geothermal purposes. Permit No. 2614-2, with a priority date of April 10, 2007 was approved July 9, 2007 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before July 9, 2012 and for the application to beneficial use of said water on or before July 9, 2016.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to divert 0.033 cubic feet of water per second (15 gallons per minute) for beneficial use.

The location of the diversion points are:

- Well #1 (west well): 1,565'S & 1,720'W of the NE corner of Section 31, T2N, R11E (SW ¼ NE ¼);
- Well #2 (east well): 1,566'S & 1,675'W of the NE corner of Section 31, T2N, R11E (SW ¼ NE ¼).

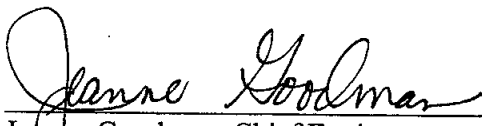
**Well #1 has the pump installed and Well #2 is the injection well utilized for the geothermal system.*

(3) The permit holder has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use. The water is used at the New Underwood Community Center for heating and cooling the facility.

(4) Pursuant to South Dakota Water Law 46-5-30.1 the City of New Underwood, PO Box 278, New Underwood SD 57661-0278 the holder and/or owner of Water Right No. 2614-2 is issued a license to appropriate water, the right to use 0.033 cubic feet of water per second from ground water, two wells (Quaternary Alluvium) with a priority date of April 10, 2007 from the location specified in (2) of this license for geothermal use purposes.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 2614-2 and subject to 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.



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

AUG 03 2017

date

