

WATER PERMIT NO. 8299-3

Name of Applicant: Aberdeen Energy LLC

Address: 13435 870th Ave, Mina SD 57451

Phone: 605 695-6726

Amount of Water Claimed: 1.33 cfs (968 AF)

Total Acres: NA

Source of Water Supply: groundwater (2 wells)

Water to be used for: industrial

County: Edmunds

Type of Waste Disposal System:

Location: 1 1/2 miles east of Mina SD

PRIORITY Date Received: 7-17-77

Application/License Fee: \$ \$1,650

Amended Application Received: 9-26-18

Period of Annual Use: January 1 – December 31

Remarks:

Diversion Point: NE 1/4 Sec 28-T123N-R66W

Land to be Irrigated: NA

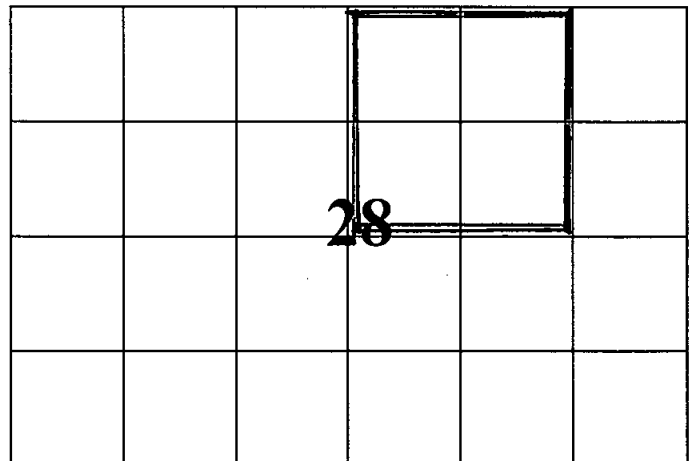
Depth of Well: 1500 feet

Well Driller:

Remarks:

Type of Map:

Prepared by:



Reviewed and the Number Assigned on: 9-27-18

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

SOUTH DAKOTA
WATER PERMIT NO. 8299-3

Date of first receipt of application July 17, 2017.

Date of return to applicant for corrections, amendments or changes August 1, 2017.

Date of receipt of corrected application September 28, 2018.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8299-3 to Aberdeen Energy LLC, c/o Pete Bullene, Manager, 13435 370th Ave, Mina SD 57451 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. 8299-3 appropriates 968 acre-feet of water annually at a combined maximum pump rate of 1.33 cubic feet of water per second from two wells to be completed into the Inyan Kara Aquifer (1,500 feet deep) located in the NE 1/4 Section 28 for industrial use at an ethanol facility located in the NE 1/4 Section 28; all in T123N-R66W. This site is located 1 1/2 miles west of Mina SD.
2. The water appropriated shall be used for the purpose of industrial 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. 8299-3 is November 26, 2018.
5. The date from which applicant may claim right is September 28, 2018.
6. One-fifth of the construction is to be completed on or before May 26, 2021.
7. All construction is to be completed on or before November 26, 2023.
8. Water is to be put to beneficial use on or before November 26, 2027.
9. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

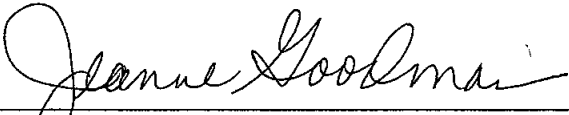
QUALIFICATIONS

1. The wells 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 wells authorized by Permit No. 8299-3 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 must be constructed such that they are adequate wells as defined in ARSD 74:02:04:20(6). The wells may not be constructed use the alternative well construction standard set forth in ARSD 74:02:04:36 commonly called a "slim hole" well.

(continued)

3. The wells approved under Permit No. 8299-3 shall be valved and the flow reduced to the amount needed or to a minimum when not being used. If the wells are abandoned or the permit cancelled, the well must be plugged in accordance with Water Management Board Rules, Chapter 74:02:04.
4. The permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Inyan Kara aquifer.
5. Water Permit No. 8299-3 authorizes a total annual diversion of 968 acre foot of water.

WATER MANAGEMENT BOARD

By: 

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

DEC 10 2018

date



RECEIVED

JUL 17 2017

WATER RIGHTS
PROGRAM

Mail to: DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8299-3</u>	(office use only) Hydrologic Unit <u>10160008</u>
	Basin <u>James River</u>	
	Newspaper <u>Ipswich Tribune</u>	
	<u>American News</u>	

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

Check use(s) of water:

- | | | | |
|---|--|--|--|
| ☐ Municipal | ☐ Water Distribution System | ☐ Recreational | ☐ Institutional |
| ☐ Rural Water System | ☐ Commercial | ☐ Fish & Wildlife | ☐ Geothermal |
| ☐ 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.)

NA

1. Name to Appear on Water Permit Aberdeen Energy LLC

Mailing Address 13435 370th Ave Mina SD 57451
(Address) (City) (State) (Zip Code)

Phone 605-882-8480 Mobile 605-695-6726 Email pbullene@glaciallakesenergy.com

2. Amount of water claimed 1.33 *CFS or 600 **GPM and 968 ***AF or 315.4 billion Gallons
Flow rate and volume are both required. (*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use)3. Source of water supply Inyan Kara aquifer (2 wells)4. Location of point of diversion SE1/4 NE1/4 T123N R66W Sec 28 County Edmunds
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)If not a public water supply (e.g. municipal), will water be used outside of the area described above? ☐ Yes ☒ No

If "Yes," where will water be used?

(example - NW1/4 section 12-T104N-R53W)5. County or counties where water will be used Edmond's Edmunds6. Annual period during which water is to be used January 1 to December 31

7. Give a description of the project. When available include any preliminary engineering report or other reports or information that will help explain the project. (Attach sheet if more space is needed)

Aberdeen Energy is proposing to install wells to accommodate a supplemental water flow to existing ethanol facility. This transition to partial well water will reduce the amount of water that could currently be used for other domestic purposes. Map of the new well locations attached.

Additional information can be found under canceled Water Right Appropriation No. 6953-3.

I, [Signature] EHS Manager, the applicant, certify under
Name of Person Title (if applicable)

penalty of perjury that I have read this application, examined the attached map, and that the matters stated are true. I further certify, if acting on behalf of an entity or individual other than myself, that I am authorized to submit this application.

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

Supplemental Information

(type or print)

1. Well Information (check one or both as applicable) ☒ Drilling new well(s) ☐ Using existing well(s)

a) If new wells, how many 6 Have test holes been drilled ☒ Yes ☐ No Drilled by Refer to Water right No. 6953-3
(if yes, please provide copies of logs)

b) If existing wells, how many 0 Provide copy of log(s), if available. Drilled by On file with Water right No. 6953-3

For either Existing or Proposed Wells:

c) Well Depth (required) 1500 Depth to Top of Water Bearing Material _____ Depth to Water from Surface _____

d) Distance to nearest domestic well on applicant's property 1 mile Property owned by others Yes

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 (e.g. 3 to 1 is a typical slope)

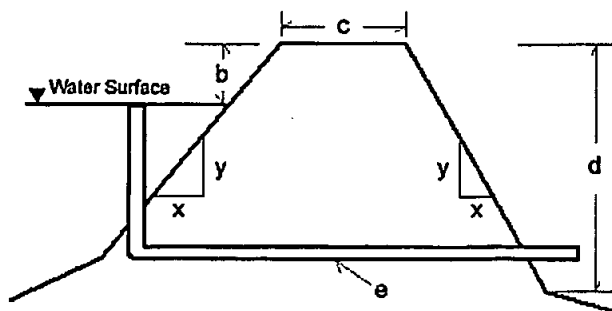
Upstream _____

Downstream _____

h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



				⊗ ⊗ ⊗	
		28		⊗ ⊗ ⊗	

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date July 17, 20 17

RECEIVED OF Aberdeen Energy, LLC

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

Fee for Application for Permit No. <u>8299-3</u> to Appropriate Water, to construct and to put water to beneficial use	3250	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>8299-3</u>	200	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	3450 00

No. **08301**

By

Jeanne Goodman
Chief Engineer

ym

December 10, 2018

PAYMENT REQUEST FORM

PAYEE: Aberdeen Energy LLC
13435 370th Ave
Mina SD 57451

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

DESCRIPTION OF SERVICE, PRODUCE OR TRANSFER

Over payment refund on application/license filing fee for Water Permit No. 8299-3

AMOUNT: \$1,800.00

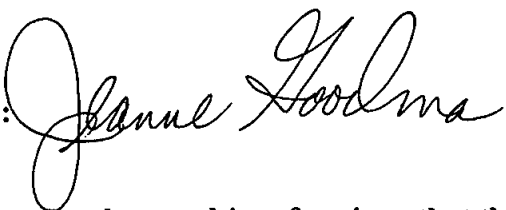
FUNDING SOURCE:

GENERAL: X

FEDERAL:

OTHER:

COMMENTS:

AUTHORIZATION: 

I declare and affirm under the penalties of perjury that this claim is in all things, true and correct.
I further agree to comply with the provisions of the Civil Rights Act of 1964 and regulations issued
thereunder relating to nondiscrimination in federal assisted programs.

Schlaak, Karen

From: Pete Bullene <PBullene@glaciallakesenergy.com>
Sent: Monday, July 17, 2017 11:08 AM
To: Schlaak, Karen
Subject: RE: [EXT] Aberdeen Energy application

Karen,

To clarify our application, Aberdeen energy is requesting an appropriation of 2,000 gpm from six wells.

Peter Bullene



Glacial Lakes Energy, LLC

EHS Manager
301 20th Ave. SE
Watertown SD 57201
Office 605-753-1957
Mobile 605-695-6726
Fax 605-882-8982
Email pbullene@glaciallakesenergy.com

From: Schlaak, Karen [<mailto:Karen.Schlaak@state.sd.us>]
Sent: Monday, July 17, 2017 9:56 AM
To: Pete Bullene <PBullene@glaciallakesenergy.com>
Subject: Aberdeen Energy application

Pete

We received the application today. On Item No. 2 Amount of Water claimed, what is the proposed diversion rate from the six wells? I talked with Eric and he said the diversion rate would be greater than the 1.67 cfs authorized under cancelled Permit No. 6953-3.

Let me know. Thanks

Karen Schlaak

SD DENR, Water Rights Program
(605) 773-3352



Gronlund, Eric

From: Goodman, Jeanne
Sent: Tuesday, August 01, 2017 3:21 PM
To: 'PBullene@glaciallakesenergy.com'
Cc: Gronlund, Eric
Subject: Aberdeen Energy water right application

Pete,

The preliminary review of the water right permit application for Aberdeen Energy has presented several questions for which answers are needed for the department to proceed. Most of these questions are technical in nature. I realize you will likely need the services of professional consultants in the areas of ground water hydrology, water quality, and water treatment to provide further information so in light of your e-mail from Monday morning, I am sending this e-mail to keep the process moving.

State law provides that a permit to appropriate water may be issued only if 1) there is a reasonable probability that there is unappropriated water available, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use, and 4) the use is in the public interest. Currently the average annual recharge to and discharge from the Inyan Kara aquifer has not been quantified locally in your area or regionally in South Dakota. This presents difficulties meeting the criteria for the two technical criteria numbers 1 & 2 above for when a permit may be issued. A consultant may be able to provide information to supplement Aberdeen Energy's application regarding availability of water and potential impacts to existing rights.

In addition, pursuant to the Administrative Rules of South Dakota (ARSD) 74:02:01:08 and 74:02:01:12.01, the department requires at a minimum the following information to continue processing the permit application:

1. Information on the proposed wells: locations, distance between the wells, distance from the nearest well in the same formation not owned or used by Aberdeen Energy, estimated depths and flow rates for each well.
2. What is the proposed construction of the wells and how will the wells be controlled if flowing at the land surface?
3. How will the wells be operated? Do you anticipate all wells are needed to obtain the quantity of water requested? Will the wells be pumped continuously? Or will there be on-site storage so the wells will only be pumped periodically?
4. The amount of water requested is much greater than in the original Permit No. 6953-3. What is the justification for the additional amount of water requested? What will the water be used for?

5. With the additional amount of water requested, do you anticipate an increase in the rate and quality of the wastewater discharge currently allowed by your Surface Water Discharge Permit? If changes will be necessary, what changes will be needed? You are encouraged to contact Albert Spangler to discuss if changes are needed to your Surface Water Discharge permit. Significantly increasing the amount of wastewater discharged could trigger the need for an antidegradation review, a major modification of your permit limits, and/or a public notice.
6. What is the water treatment process planned for the water?
7. What are the by-products and eventual final disposition of the by-products of the treatment process?

Please let me know if you have any questions on the information we have requested. Thank you.

Jeanne Goodman

From: Gronlund, Eric
Sent: Monday, July 31, 2017 10:40 AM
To: Goodman, Jeanne
Subject: FW: [EXT] Aberdeen Energy

From: Pete Bullene [<mailto:PBullene@glaciallakesenergy.com>]
Sent: Monday, July 31, 2017 10:40 AM
To: Gronlund, Eric
Subject: [EXT] Aberdeen Energy

Eric,

I am not sure where to make further inquiries regarding the Water Rights Permit application. Yes I realize it has only been a couple of weeks but we are at a standstill until a water appropriation decision is made.

Sorry to be a pest.....

Pete

Peter Bullene



Glacial Lakes Energy, LLC

EHS Manager
301 20th Ave. SE
Watertown SD 57201
Office 605-753-1957
Mobile 605-695-6726
Fax 605-882-8982
Email pbullene@glaciallakesenergy.com

GLE's Core Values: Integrity, Professionalism, Accountability, Respect, Teamwork

NOTICE: This e-mail message and all attachments transmitted with it may contain privileged and confidential information intended solely for the use of the addressee. If the recipient of this message is not the intended person or entity you are hereby notified that any reading, dissemination, distribution, copying, or other use of this message or its attachments, hyperlinks, or any other files of any kind is strictly prohibited. If you have received this message in error, please notify the sender immediately by telephone (605.882.8480) or by a reply to this electronic mail message and delete this message and all copies and backups thereof. All rights reserved by Glacial Lakes Energy, LLC.

RECEIVED

SEP 28 2018

WATER RIGHTS
PROGRAM

September 26, 2018

Mr. Eric Gronlund
South Dakota Department of Environment
& Natural Resources
Water Rights Program
523 E Capitol Avenue
Pierre, SD 5750-3182

RE: Aberdeen Energy, LLC
Request for Amendment
Water Permit Application
Inyan Kara Aquifer

Dear Mr. Gronlund:

In 2017, Aberdeen Energy, LLC (Aberdeen Energy) submitted an application for a permit to appropriate, from the Inyan Kara aquifer, 1 billion gallons of water per year, which is equivalent to a continuous pumping rate of approximately 1,900 gallons per minute (gpm). This water, which will be for industrial use, is intended to supplement our current water supply which is being provided by the regional water system WEB Water. Aberdeen Energy respectfully requests to amend (reduce) the requested appropriation amount to 315.4 million gallons per year, which is equivalent to a continuous pumping rate of 600 gpm. The requested point of diversion is at the Aberdeen Energy Ethanol Plant (Plant), in the SE1/4 of the NE1/4 of Section 28, T123N, R66W, Edmunds County, South Dakota. We are also requesting that the point of diversion within the application be amended to include the entire NE1/4 of Section 28, T123N, R66W.

Previous Water Permit No. 6953-3

In June 2008, Aberdeen Energy was granted Water Permit No. 6953-3 (WP #6953-3), authorizing the appropriation of 1.67 cubic feet per second (equivalent to a continuous withdrawal rate of approximately 750 gpm) from the Inyan Kara aquifer. The authorized point of diversion was a single well (Mina 1) constructed at the Plant, in the SE1/4 of the NE1/4 of Section 28, Township 128 North, Range 66 West. While WP #6953-3 was cancelled in 2012, due to voluntary abandonment by Aberdeen Energy, it is believed that the conditions allowing approval of the

former permit (reasonable probability of the availability of unappropriated water, diversion can be developed without unlawful impairment of existing rights, proposed use is a beneficial use in the public interest) are fundamentally unchanged since issuance of WP #6953-3 in 2008. Consequently, Aberdeen Energy is hopeful that the Chief Engineer can support this amended water permit application, that requests an appropriation that is less than the amount previously approved for WP #6953-3 in 2008.

Summary

Aberdeen Energy is requesting that the appropriation volume and point of diversion of the water permit application that is currently in deferred status be amended as follows:

1. Amount changed from 1 billion gallons (~1,900 gpm) to 315.4 million gallons (~600 gpm), and
2. Point of diversion be changed from SE1/4, NE1/4, Section 28, T123N, R66W, to NE1/4, Section 28, T123N, R66W.

If this amended permit request is approved, the water will be supplied by one, or possibly, two wells, to be constructed at the Plant (in the NE 1/4 of Section 28, T123N, R66W). Aberdeen Energy would like to construct a new well at the Plant in the Spring of 2019. We will provide you with a copy of the proposed well design, and the well location, when available.

Please contact me at (605) 753-1957 or Mitch Kannenberg (WSP USA, Inc.) at (605) 334-6000 if you have any questions or require additional information. Thank you very much for your assistance.

Sincerely,

ABERDEEN ENERGY, LLC

A handwritten signature in black ink, appearing to read 'Peter Bullene', written over a horizontal line.

Peter Bullene
EHS Manager

Gronlund, Eric

From: Pete Bullene <PBullene@glaciallakesenergy.com>
Sent: Thursday, September 27, 2018 1:45 PM
To: Gronlund, Eric
Cc: Kannenberg, Mitch (Mitch.Kannenberg@wsp.com)
Subject: RE: [EXT] Aberdeen Energy-well

Eric,

The 600 gpm will be our peak pumping rate for one or two wells.

Pete

From: Gronlund, Eric [<mailto:Eric.Gronlund@state.sd.us>]
Sent: Thursday, September 27, 2018 1:40 PM
To: Pete Bullene <PBullene@glaciallakesenergy.com>
Cc: Kannenberg, Mitch (Mitch.Kannenberg@wsp.com) <Mitch.Kannenberg@wsp.com>
Subject: RE: Aberdeen Energy-well

Pete and Mitch:

1. The request is for 315.4 million gallons annually which is equivalent to 968 acre feet of water annually. This results in an application filing fee of \$1,650. Aberdeen Energy submitted a filing fee of \$3,450. Therefore, DENR will be refunding \$1,800 of the original submitted filing fee back to Aberdeen Energy.
2. The letter states ".....315.4 million gallons per year which is equivalent to a continuous pumping rate of 600 gpm." Will the peak pump rate from the one or two wells be 600 gpm that will be pumped continuously? Or does Aberdeen Energy intend a greater pump rate but just not continually pumping? The reason I seek clarification is that the processing and issuance of a permit is for the peak pump rate as well as the annual volume.

Eric

From: Pete Bullene [<mailto:PBullene@glaciallakesenergy.com>]
Sent: Thursday, September 27, 2018 9:58 AM
To: Gronlund, Eric
Cc: Pete Bullene
Subject: [EXT] Aberdeen Energy-well

Good morning Eric,

Attached is a copy of a document that has been sent to you for review. As you will see it is a permit amendment for Aberdeen Energy requesting our application be reduced to 600 gpm from the Inyan Kara aquifer. We have received a few preliminary bids for putting in the well (close to 500K). I need to have this expenditure approved by our Board. Needless to say the first thing they are going to ask me is if this well has been permitted. I am sure they are not going to approve the expenditure until a permit has been obtained.

I would greatly appreciate your timely review of the attached application.

Thanks in advance,

Pete

Peter Bullene



Glacial Lakes Energy, LLC

EHS Manager

301 20th Ave. SE

Watertown SD 57201

Office 605-753-1957

Mobile 605-695-6726

Fax 605-882-8982

Email pbullene@glaciallakesenergy.com

GLE's Core Values: Integrity, Professionalism, Accountability, Respect, Teamwork

NOTICE: This e-mail message and all attachments transmitted with it may contain privileged and confidential information intended solely for the use of the addressee. If the recipient of this message is not the intended person or entity you are hereby notified that any reading, dissemination, distribution, copying, or other use of this message or its attachments, hyperlinks, or any other files of any kind is strictly prohibited. If you have received this message in error, please notify the sender immediately by telephone (605.882.8480) or by a reply to this electronic mail message and delete this message and all copies and backups thereof. All rights reserved by Glacial Lakes Energy, LLC.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

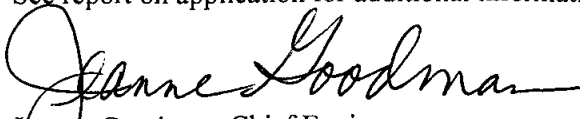
**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8299-3, Aberdeen Energy LLC**

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. 8299-3, Aberdeen Energy LLC, c/o Pete Bullene, 13435 870th Avenue, Mina SD 57451.

The Chief Engineer is recommending APPROVAL of Application No. 8299-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. The wells 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 wells authorized by Permit No. 8299-3 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 must be constructed such that they are adequate wells as defined in ARSD 74:02:04:20(6). The wells may not be constructed using the alternative well construction standard set forth in ARSD 74:02:04:36 commonly called a "slim hole" well.
3. The wells approved under Permit No. 8299-3 shall be valved and the flow reduced to the amount needed or to a minimum when not being used. If the wells are abandoned or the permit cancelled, the well must be plugged in accordance with Water Management Board Rules, Chapter 74:02:04.
4. The permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Inyan Kara aquifer.
5. Water Permit No. 8299-3 authorizes a total annual diversion of 968 acre foot of water.

See report on application for additional information.


Jeanne Goodman, Chief Engineer
November 6, 2018

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 8299-3
ABERDEEN ENERGY, LLC
C/O PETE BULLENE
NOVEMBER 6, 2018

Water Permit Application No. 8299-3 proposes to appropriate 968 acre-feet of water annually (ac-ft/yr.) at a maximum instantaneous diversion rate of 1.33 cubic feet of water per second (cfs) from up to two wells to be completed into the Inyan Kara aquifer (approximately 1,500 feet deep) for industrial use at an ethanol production facility. The wells are to be located in the NE ¼ Sec. 28-T123N-R66W in Edmunds County. The well locations are approximately 1.5 miles east of Mina, SD and 13 miles west of Aberdeen, SD.

AQUIFER: Inyan Kara (INKR)

History:

Cancelled Permit No. 6953-3 was originally approved in June 2008 and authorized the withdrawal of water from the Inyan Kara aquifer for the same ethanol production facility as Application No. 8299-3. Cancelled Permit No. 6953-3 authorized a maximum instantaneous diversion rate of 1.67 cfs, which was later reduced to 1.33 cfs during the licensing process. The water was to be used as a backup supply and supplement to their WEB Water supply. The well that was authorized under this permit was plugged in June 2011, and the permit was voluntarily abandoned. The permit was cancelled by the Water Management Board in March 2012.

Aquifer Characteristics:

The Inyan Kara aquifer is a regional scale bedrock aquifer underlying portions of Nebraska, North Dakota, South Dakota, and Wyoming (Downey, 1986). The Inyan Kara aquifer is also locally referred to as the "Sundance" aquifer. It consists of the permeable portions of the Lower Cretaceous aged Inyan Kara Group consisting of the Fall River and Lakota Formations (Martin et al, 2004). The Fall River Formation overlies the Lakota Formation and consists of fine sand, silt, and clay deposited under shallow-marine, tidal flat, coastal swamp, and deltaic conditions (Downey, 1986). The Lakota Formation primarily is composed of sandstone and occasional conglomerate that is often a channel/valley fill deposit (Downey, 1986). The Fuson Shale member of the Lakota Formation may act as an aquitard between the Lakota and Fall River Formations, locally. However, on a regional scale, the degree to which the formations are hydraulically separated or connected is not clear, and the two formations are typically considered as parts of the Inyan Kara aquifer. For the purpose of appropriations, the Water Management Board and the DENR-Water Rights Program consider the Inyan Kara Group a single aquifer.

Locally, the Inyan Kara aquifer underlies approximately 1,070 square miles of the 1,151 square miles of Edmunds County and contains an estimated 4,108,000 ac-ft of recoverable water in storage in the county (Hedges et al, 1982). Review of the well construction and the electronic borehole log in the file for Cancelled Permit No. 6953-3 indicates the top of the Inyan Kara aquifer to be approximately 1,370 to 1,380 feet below ground surface at the proposed well sites. The aquifer had 126 pounds per square inch (psi) of pressure at the time of completion in

December 2006. Even though the well locations proposed by this application are near the eastern extent of the Inyan Kara Group as delineated by Gries (1981), the aquifer thickness is at least 140 feet based on the 2006 borehole log.

South Dakota Codified Law (SDCL) 46-2A-9

Pursuant to SDCL 46-2A-9, a permit to appropriate water may be issued only if there is a reasonable probability that there is unappropriated water available for this applicant's proposed use, that the proposed diversion can be developed without unlawful impairment of existing rights and that the proposed use is a beneficial use and in the public interest. This report will address the availability of unappropriated water and effects on existing rights from the aquifer that are pertinent to this application.

WATER AVAILABILITY:

This application proposes to appropriate water from the Inyan Kara aquifer. The probability of unappropriated water available from the aquifer can be evaluated by considering SDCL 46-6-3.1, which requires "No application to appropriate groundwater may 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 water to the groundwater source." If the source of the water is older or lower than the Greenhorn Formation and a water distribution system has applied for a permit, the Board need not consider the recharge/withdrawal issue. In this case, the aquifer is stratigraphically lower/older than the Greenhorn Formation. However, the applicant is not a water distribution system. Therefore, the recharge versus withdrawal issue needs to be considered.

Hydrologic Budget:

Recharge:

The Inyan Kara aquifer is recharged through infiltration of precipitation where the Inyan Kara Group outcrops in western South Dakota and Wyoming, and through leakage from underlying formations (Downey, 1986). The average annual recharge to the Inyan Kara aquifer in its entirety has not been quantified. However, Driscoll and Carter (2001) estimated the precipitation component of the recharge from the South Dakota portion of the Black Hills outcrop area to be 11,600 ac-ft/yr. The nearest area of Inyan Kara outcrop is approximately 235 miles southwest of the proposed well locations. This estimate does not account for any upward leakage from underlying formations and is therefore less than the actual recharge rate to the Inyan Kara aquifer.

Discharge:

Although discharge from the Inyan Kara aquifer occurs through well withdrawals, the majority of discharge from the aquifer is by upward leakage to the Dakota aquifer (Hamilton, 1982; Koch and Bradford, 1976). Some discharge from the Inyan Kara aquifer is also from uncontrolled flowing wells and between aquifers where wells completed into the Inyan Kara aquifer have experienced casing failure. Currently, there are 190 water rights/permits authorizing the withdrawal of water and one future use permit (1780-2 for Town of New Underwood) reserving water from the Inyan Kara aquifer (Water Rights, 2018b). There is also one pending application (Application No. 2686-2 for Powertech (USA) Inc.) requesting authorization to withdraw water from the Inyan Kara aquifer. There are many well completion reports on file with the DENR-

Water Rights Program for domestic wells completed into the Inyan Kara aquifer (Water Rights, 2018c).

In April 2018, Farmer (2018) estimated average annual withdrawals from the Inyan Kara aquifer in South Dakota to be 10,451.2 ac-ft/yr. Farmer's (2018) water use estimate was based on updating an estimate from Buhler (2012). Buhler's (2012) water use estimate was based on annual water use reported in the latest public water system surveys for municipal, rural water system, and suburban housing development appropriations where applicable, calculated annual use based on permitted animals and rates of 20 gallons per day (gpd) for beef cattle, 5 gpd for swine, 15 gpd per 100 turkeys, and 9 gpd per 100 chickens for large confinement operations permitted by DENR, irrigation questionnaire reporting for irrigation permits when available, the most current water use reported for non-irrigation appropriations that are required to report, assuming full development of the pending application, assuming non-reporting non-irrigation water rights/permits limited to an annual volume will use the maximum permitted volume, and non-reporting non-irrigation water rights/permits limited by diversion rate will be used 60 percent of the time at the maximum permitted diversion rate for their annual use period.

Since completion of the Farmer (2018) analysis for Water Permit No. 1975-1, three other water permits (Water Permit Nos. 8334-3, 1982-1, and 1983-1) have also been approved to withdraw water from the Inyan Kara aquifer (Water Rights, 2018b). Furthermore, two permits (Water Right Nos. 1892-1 and 1894-1) have been inspected and licensed to a developed diversion rate less than the permitted rate used in Farmer's (2018) estimate. Following the same methodology as Farmer (2018) and Buhler (2012) and accounting for the new permits and changes in authorized diversion rates, the current estimated average annual use from the Inyan Kara aquifer is 10,890 ac-ft/yr.

Hydrologic Budget

The estimated average annual recharge to the Inyan Kara aquifer from precipitation on the outcrop in the Black Hills area of South Dakota is 11,600 ac-ft/yr. The estimated average annual use is 10,890 ac-ft/yr. This application proposes to appropriate 968 ac-ft/yr. That would be a total estimated average annual use of 11,858 ac-ft/yr., if this application is approved. Although the estimated average annual withdrawal is slightly greater than the estimated average annual recharge, the recharge estimate only accounts for precipitation recharge from the outcrop area in the Black Hills area of South Dakota. That recharge estimate does not account for any upward leakage from underlying formations, streamflow losses across the outcrop, or groundwater inflow from portions of the aquifer in adjacent states. Therefore, there is a reasonable probability unappropriated water is available for this proposed appropriation.

Observation Well Data:

Administrative Rule of South Dakota Section 74:02:05:07 requires that the Water Management Board shall rely upon the record of observation well measurements in addition to other data to determine that the quantity of water withdrawn annually from the aquifer does not exceed the estimated average annual recharge of the aquifer.

The DENR-Water Rights Program monitors nine observation wells completed into the Inyan Kara aquifer with only one, ED-85B, not located in the Black Hills area (Water Rights, 2018a).

Observation well ED-85B is located approximately 2.5 miles southeast of the proposed well locations; the next nearest observation well is approximately 235 miles southwest of the proposed well sites (Water Rights, 2018a). Winter (1994) presented water level information for various bedrock aquifers across the entire state of South Dakota. The nearest well that had Inyan Kara water level data in Winter's (1994) report is located approximately 62 miles southwest of the proposed well locations. The hydrographs for DENR observation well ED-85B and for the well presented in Winter's (1994) report are shown in Figures 1 and 2, respectively.

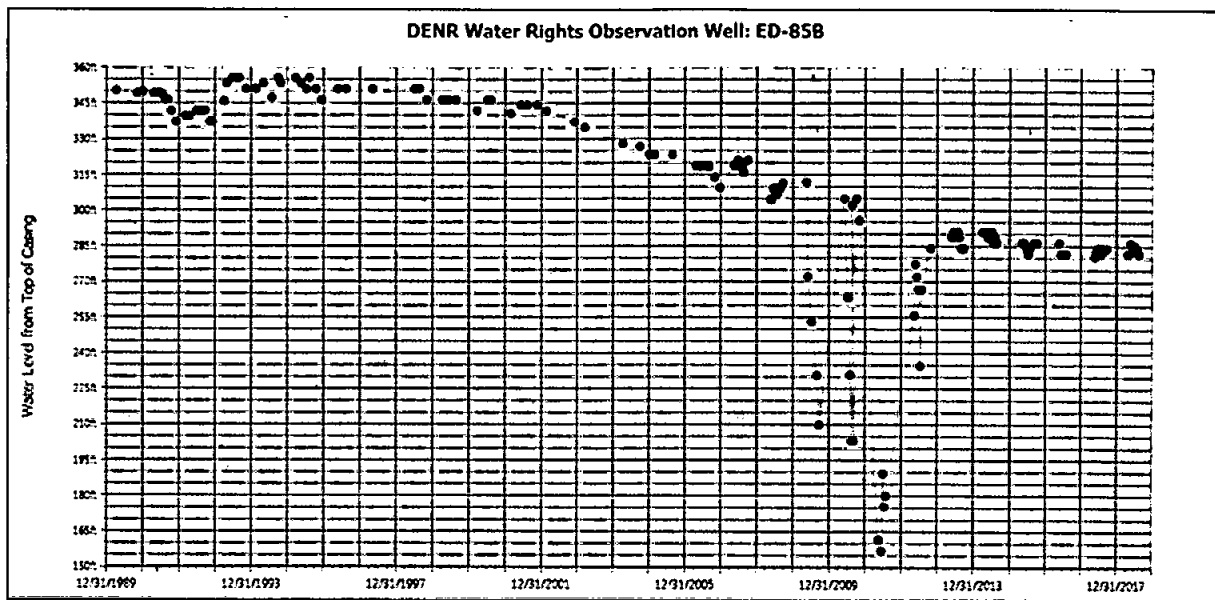


Figure 1- Hydrograph for ED-85B (Water Rights, 2018a)

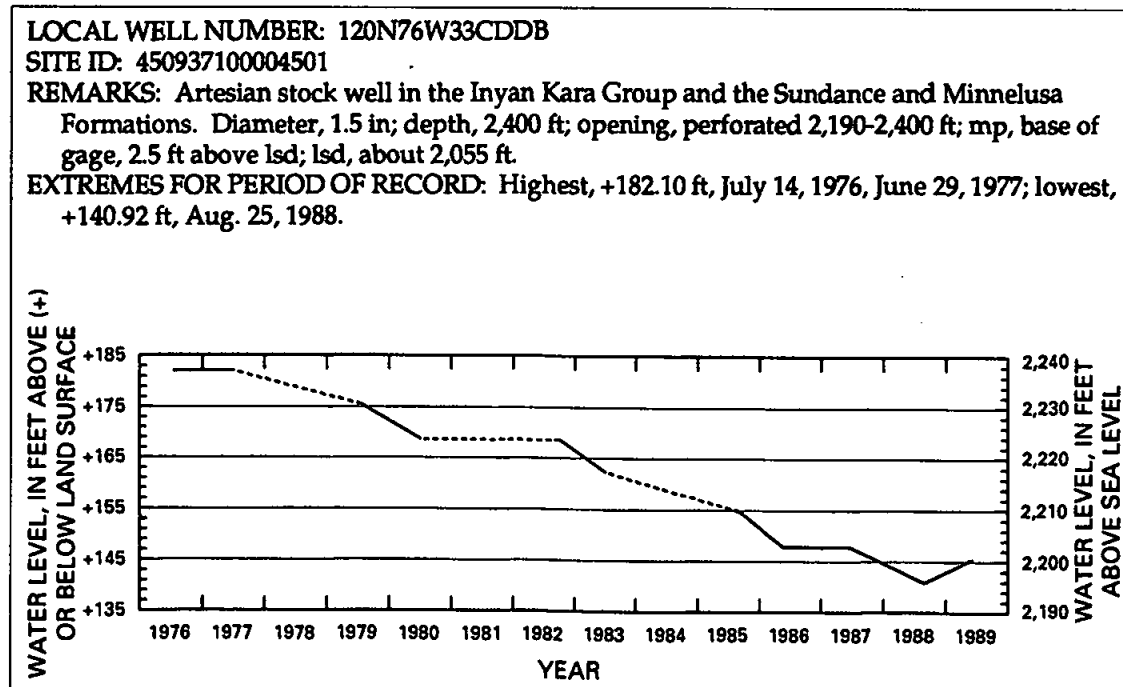


Figure 2- Hydrograph for a stock well in Potter County completed into the Inyan Kara, Sundance, and Minnelusa Formations (Winter, 1994)

The hydrographs for ED-85B and the well from Winter's (1994) report show a decline in artesian head pressure over their respective periods of record. The Inyan Kara aquifer in the area of the proposed well locations is confined. The water level in ED-85B is currently approximately 280 feet above the top of the casing. Similar to the Dakota aquifer, the Inyan Kara aquifer is likely still equilibrating in relation to withdrawals and waste from uncontrolled flowing wells. The rate of decline in the last five years is less than earlier in the period of record. This indicates the aquifer has been equilibrating to the current level of withdrawals and waste from uncontrolled flowing wells. The cause of the significant dips in water level between 2009 and 2012 is not known. Buhler (2016) and Koch and Bradford (1976) both discuss how the declining artesian head pressure in the Dakota aquifer could be driving increased leakage from the Inyan Kara aquifer to the Dakota aquifer, and thus, the Inyan Kara aquifer is also likely in the process of equilibrating to this leakage.

Water use estimates for 1970 reported more than 57 percent of the water supplied is by the Dakota, Fall River, and "Sundance" aquifers in Brown County. This equates to approximately 794.4 million gallons per year that went unused and was wasted with 330.4 million gallons of the total coming from the Fall River and "Sundance" aquifers (the Inyan Kara aquifer) (Koch and Bradford, 1976). Additionally, the casing of many of the uncontrolled flowing Inyan Kara aquifer wells have deteriorated and are not visible at ground surface. The discharge from these wells may be to aquifers stratigraphically above the Inyan Kara aquifer such as the Dakota aquifer, or to surface at various distances from the original well casing. It is not possible to quantify these discharges and most cannot be controlled.

The volume of water in the Inyan Kara aquifer that is related to the change in head pressure shown in observation well ED-85B is miniscule, when compared to the immense volume of water in storage in the aquifer and the physics of withdrawals from confined aquifers. The hydrograph for observation well ED-85B shows that over the period of record the declining water level appears to be stabilizing and approaching a new dynamic equilibrium with discharge from the aquifer. This indicates average annual withdrawals are not exceeding average annual recharge. Furthermore, additional appropriations for beneficial use should serve to lessen the amount of wasteful discharges by uncontrolled flowing wells. Therefore, there is a reasonable probability unappropriated water is available for this proposed appropriation.

EXISTING WATER RIGHTS:

There are four water rights/permits within approximately 10 miles of the proposed well location (Water Rights, 2018b). The nearest is Water Right No. 5032-3 for Marshall Farms approximately 0.7 miles north of the proposed well sites (Water Rights, 2018b). Figure 3 is a map of water rights/permits authorized to withdraw water from the Inyan Kara aquifer in the area of the well sites proposed by this application. The water rights/permits shown in Figure 3 are listed in Table 1.

All of the water rights/permits with the exception of Water Permit No. 8197-3 were approved prior to the approval of Cancelled Permit No. 6953-3 that was also for the same ethanol production facility as this application. Cancelled Permit No. 6953-3 was approved in May 2008 with a maximum instantaneous diversion rate of 1.67 cfs compared with the currently requested 1.33 cfs for this application. Cancelled Permit No. 6953-3 was approved unopposed. Water

Permit No. 8197-3 which is approximately five miles northeast of the proposed well sites has been the only additional appropriation from the Inyan Kara aquifer in this area since the approval of Cancelled Permit No. 6953-3.

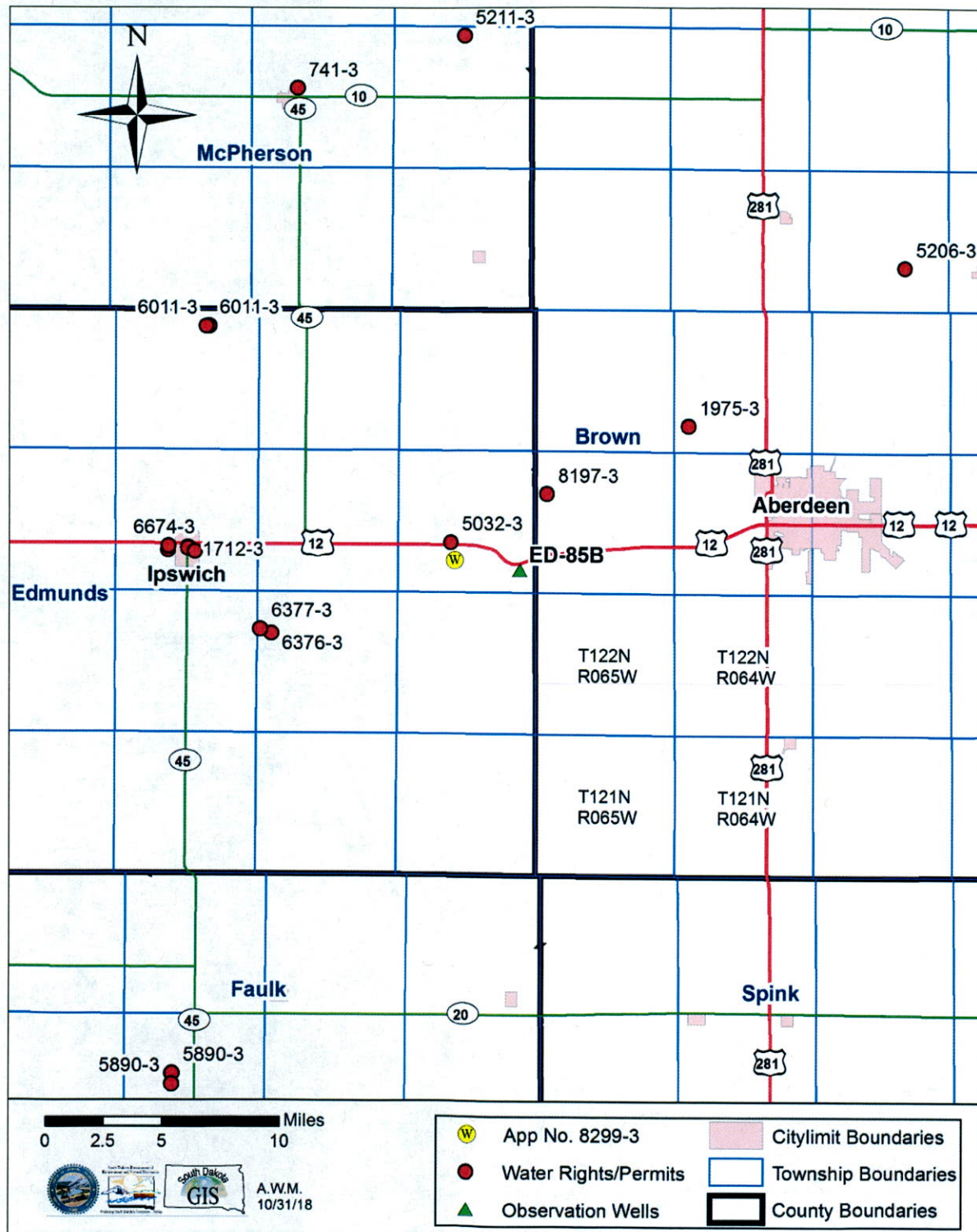


Figure 3- Map of Inyan Kara aquifer water rights/permits and observation wells in the area of the well locations proposed by Application No. 8299-3 (Water Rights, 2018a and 2018b)

Table 1- List of water rights/permits shown in Figure 3 (Water Rights, 2018b)

Permit No.	Name	County	Priority Date	Status	Use	CFS	Acres
741-3	Leola Development Corp	MP	09/14/1960	LC	REC	0.17	N/A
1712-3	City of Ipswich	ED	01/01/1919	LC	MUN	0.19	N/A
1975-3	William Coady	BN	03/07/1973	LC	SHD	0.34	N/A
5032-3	Marshall Farms	ED	09/28/1984	LC	DOM/LCO	0.17	N/A
5206-3	Perry Pitz	BN	06/01/1988	LC	DOM	0.089	N/A
5211-3	Ronald J Geffre	MP	07/11/1988	LC	DOM	0.1	N/A
5890-3	Evergreen Colony	FA	11/14/1995	LC	DOM/LCO	0.14	N/A
6011-3	Plainview Colony Htn	ED	07/07/1997	LC	COM/LCO	0.22	N/A
6376-3	LDL Cattle Company	ED	12/26/2002	LC	COM/LCO	0.22	N/A
6377-3	LDL Cattle Company	ED	12/26/2002	LC	COM/LCO	0.27	N/A
6674-3	Ipswich Golf Club	ED	11/30/2005	LC	IRR	0.33	41
8197-3	Bauer Feedyard	BN	01/29/2016	PE	COM/LCO	0.16	N/A
BN= Brown, ED= Edmunds, FA= Faulk, MP= McPherson							
LC= Water Right, PE= Water Permit							
COM= Commercial, DOM= Domestic, IRR= Irrigation, LCO= Livestock Confinement Operation, MUN= Municipal, REC= Recreation, SHD = Suburban Housing Development							

Buhler (2008) noted in the report concerning Cancelled Permit No. 6953-3: “It appears that the well that supplies Water Right No. 5032-3 was affected when the well that is to be used to supply this application was step tested.” The step test report (Dustman, 2007) included with the application for Cancelled Permit No. 6953-3 indicates that over the course of the 24 hour step test the well authorized under Water Right No. 5032-3 for Marshall Farms saw a slight decrease in pressure of 10 psi (approximately 23 feet). The pressure in the well for Cancelled Permit No. 6953-3 stabilized and it was expected other nearby wells would stabilize with minimal changes in pressure caused by use under Cancelled Permit No. 6953-3 especially when compared to the reduction of artesian pressure in their well caused by their own respective daily use.

Water Management Board rules 74:02:04 and 74:02:05 provide for the regulation of large capacity wells to the degree necessary to maintain an adequate depth of water for prior appropriators in wells that have the ability to produce water independent of artesian head pressure. Simply, pump placement in a well is not necessarily protected. If interference between the wells proposed by this application and other nearby Inyan Kara aquifer wells, including the well authorized by Water Right No. 5032-3, were to cause the water level of the nearby wells to decline, the owner of the well (e.g. Marshall Farms) would bear the responsibility of lowering the pump inlet in the well to the top of the aquifer if necessary. The top of the aquifer in this area is approximately 1,370 to 1,380 feet below ground surface. That means there is approximately 1,645 feet of artesian head pressure above the top of the aquifer in this area. A decline of the potentiometric surface of the Inyan Kara aquifer in this area could lead to a decreased flow or require well owners to install a pump to maintain the same output.

The Water Management Board considered the delivery of water by artesian head pressure versus maximum beneficial use of water issued for Water Right No. 2313-2 for Coca-Cola Bottling Company of the Black Hills. The Water Management Board adopted Findings of Facts and Conclusions of Law that noted reservation of artesian head pressure for delivery of water would be inconsistent with SDCL 46-1-4 which states, “general welfare requires that the water resources of the state be put to beneficial use to the fullest extent of which they are capable...” (Water Rights, 1995). Furthermore, the Water Management Board found if increased cost or

decreased production as a result of impacts on artesian head pressure by legitimate users is to be considered an adverse impact it would also be in conflict with SDCL 46-1-4 (Water Rights, 1995).

There are a number of domestic wells in the area that appear to be completed into the Inyan Kara aquifer on file with the DENR-Water Rights Program (Water Rights, 2018c). Most of these wells were constructed using the alternative well construction method described in Administrative Rule of South Dakota (ARSD) 74:02:04:36 or a similar method before the enactment of that rule. This methodology of well completion is commonly called a “slim hole” well. This method of well completion does not require full length grouting of the well casing or casing of sufficient size to allow a pump to be placed at least 20 feet into the saturated aquifer as required in ARSD 74:02:04:20(6) to be an adequate well. However, the “slim hole” method is significantly less expensive than full length grouting and full size casing completion to the deep, confined and often flowing at ground surface aquifers. While “slim hole” wells are allowed to be constructed, they are not adequate wells and are not afforded the same protection from well interference that an adequate well has as a byproduct of being able to lower a pump to the bottom of the well.

During the step test of the well authorized by Cancelled Permit No. 6953-3, the pressure in the tested well declined from approximately 120 psi to 7 psi while the well was flowing at a rate of approximately 600 gpm (1.33 cfs). The physics of drawdown, particularly on as vast of an aquifer as the Inyan Kara, is the further away from the pumped or flowing well you are the less drawdown from the pumped or flowing well can be measured in any other well completed into the same aquifer.

In the past, the Water Management Board has recognized to place water to maximum beneficial use, a certain amount of drawdown may occur. Since the aquifer is under confined conditions at the proposed well sites, drawdown due to pumping or allowing the wells to flow may extend some distance from the well sites even though it is not expected to do so. The Water Management Board has promulgated rules that allow water to be placed to maximum beneficial use without the necessity of maintaining artesian head pressure for domestic use. The Water Management Board defined an “adversely impacted domestic well” in ARSD 74:02:04:20(7) as:

“a well in which the pump intake was set at least 20 feet below the top of the aquifer at the time of construction or, if the aquifer is less than 20 feet thick, is as near to the bottom of the aquifer as is practical and the water level of the aquifer has declined to a level that the pump will no longer deliver sufficient water for the well owner’s needs”.

With that in mind, some existing well owners may need to lower their pumps or install pumps to accommodate for deeper water levels in order to maintain the same production rate depending on the specific characteristics of the Inyan Kara aquifer at those locations. However, when considering the statutes (SDCL 46-1-4 and 46-6-6.1), rule (ARSD 74:02:04:20(7)), the artesian head pressure at the proposed well sites and the lack of well interference complaints in the area, well interference from this proposed diversion is not expected to cause an adverse impact to existing appropriative or domestic users with adequate wells. Therefore, there is a reasonable

probability that any interference created by pumping for this proposed diversion will not be adverse.

ADDITIONAL CONSIDERATIONS

Recent water rights/permits that involve flowing wells typically have included a qualification that limits the amount of water that flows to waste (Water Rights, 2018b).

The wells to be constructed for use under this permit should be constructed such that they are adequate wells as defined in ARSD 74:02:04:20(6). A qualification stating these wells may not be constructed using the alternative well construction standard set forth in ARSD 74:02:04:36 commonly called a “slim hole” well should be included on the permit, if this application is approved.

CONCLUSIONS:

1. Application No. 8299-3 proposes to appropriate up to 968 ac-ft/yr. at a maximum instantaneous diversion rate of 1.33 cfs from up to two wells completed into the Inyan Kara aquifer in Edmunds County for industrial use in an ethanol production facility.
2. Based on analysis of a hydrologic budget and observation well data, there is a reasonable probability unappropriated water is available for this proposed appropriation.
3. There is a reasonable probability the diversion proposed by this application can be made without adversely impacting existing appropriative or domestic users with adequate wells.
4. There should be two special qualifications on this application if approved. First, the flow from this well must be controlled so as to prevent waste of water when the well is not in use. Second, the well must be constructed as an adequate well and cannot use the alternative well construction method described in ARSD 74:02:04:36.



Adam Mathiowetz, PE
SD DENR-Water Rights Program

REFERENCES:

- Buhler, K.A. 2016. Report to the Chief Engineer on Water Permit Application No. 8197-3 Bauer Feedyard February 24, 2016. SD DENR-Water Rights Program. Joe Foss Bldg., Pierre, SD.
- Buhler, K.A. 2012. Report to the Chief Engineer on Water Permit Application No. 2686-2: Powertech (USA) Inc. November 2, 2012. SD DENR-Water Rights Program. Joe Foss Bldg., Pierre, SD.
- Buhler, K.A. 2008. Report to the Chief Engineer on Water Permit Application No. 6935-3 Aberdeen Energy LLC March 24, 2008. SD DENR-Water Rights Program. Joe Foss Bldg., Pierre, SD.
- Downey, J.S. 1986. Geohydrology of Bedrock Aquifers in the Northern Great Plains in Parts of Montana, North Dakota, South Dakota, and Wyoming. U.S. Geological Survey Professional Paper 1402-E. 89 p., 3 plates.

- Driscoll, D.G. and Carter, J.M. 2001. Hydrologic Conditions and Budgets for the Black Hills of South Dakota, Through Water Year 1998. Water-Resources Investigations Report 01-4226. U.S. Geological Survey. Rapid City, South Dakota.
- Dustman, J.E. 2007. Well Installation and Testing Report Aberdeen Energy, LLC Ethanol Plant Mina, South Dakota. Summit Envirosolutions. St. Paul, Minnesota.
- Farmer, J. 2018. Water Permit Application No. 1975-1 and Amendment to Water Right No. 1855-1 Wink Cattle Company April 16, 2018. SD DENR-Water Rights Program. Joe Foss Bldg., Pierre, South Dakota.
- Gries, J.P. 1981. Unpublished maps prepared for the Office of Drinking Water, SD Dept. of Water and Natural Resources for the Underground Injection Control Program. Accessed: October 24, 2018. <<http://www.sdgs.usd.edu/pubs/other/GriesMaps.zip>>. SD DENR-Geological Survey. Vermillion, South Dakota.
- Hamilton, L.J. 1982. Geology and Water Resources of McPherson, Edmunds, and Faulk Counties, South Dakota Part II: Water Resources. Bulletin 26. SD DENR-Geological Survey. Vermillion, South Dakota.
- Hedges, L.S., S.L. Burch, D.L. Iles, R.A. Barari, and R.A. Schoon. 1982. Evaluation of Ground-water Resources in Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa. Task 1: Bedrock Topography and Distribution, Task 2: Extent of Aquifers, Task 3: Ground-Water Storage, Task 4: Computerized Data Base, Final Report; U.S. Army Corps of Engineers Contract DACW 45-80-C-0185.
- Koch, N.C. and Bradford, W. 1976. Geology and Water Resources of Brown County, South Dakota Part II: Water Resources. Bulletin 25. SD DENR-Geological Survey. Vermillion, SD.
- Martin, J.E., Sawyer, J.F. Fahrenbach, M.D., Tomhave, D.W. and Schulz, L.D. 2004. Geologic Map of South Dakota. General Map 10. SD DENR-Geological Survey. Vermillion, SD.
- Water Rights. 2018a. Observation Well Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2018b. Water Right/Permit Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2018c. Well Completion Reports. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 1995. Findings of Fact, Conclusions of Law, and Final Decision in the Matter of Water Permit Application No. 2313-2, Coca-Cola Bottling Company of the Black Hills. DENR-Water Rights Program file for Water Right No. 2313-2. Pierre, South Dakota.
- Winter, D.R. 1994. Water Levels Through 1989 in Bedrock Aquifers in South Dakota. Open -File Report 94-320. U.S. Geological Survey. Rapid City, South Dakota.

Schlaak, Karen

From: Schlaak, Karen
Sent: Tuesday, November 06, 2018 9:59 AM
To: news.iptribune@midconetwork.com
Subject: 8299-3, Aberdeen Energy LLC
Attachments: 8299-3public.short.docx; FORM8.FRM.doc

Attached is a notice to be published on November 14, 2018.

Aberdeen Energy LLC, c/o Pete Bullene, 13435 870th Ave, Mina SD 57451 (605 882-8480 or 605 695-6726) has been notified to contact you to authorize publication and arrange for payment.

Please send the affidavit or return the attached Proof of Publication form ASAP to the Water Rights Program, 523 E Capitol, Pierre SD 57501.

Let me know if you have questions. Please acknowledge receipt of this email.

Karen Schlaak
SD DENR, Water Rights Program
(605) 773-3352



Schlaak, Karen

From: Schlaak, Karen
Sent: Tuesday, November 06, 2018 10:00 AM
To: Aberdeen News Legals (aan-legals@aberdeennews.com)
Subject: 8299-3, Aberdeen Energy LLC
Attachments: 8299-3public.short.docx; FORM8.FRM.doc

Attached is a notice to be published on November 14, 2018.

Aberdeen Energy LLC, c/o Pete Bullene, 13435 870th Ave, Mina SD 57451 (605 882-8480 or 605 695-6726) has been notified to contact you to authorize publication and arrange for payment.

Please send the affidavit or return the attached Proof of Publication form ASAP to the Water Rights Program, 523 E Capitol, Pierre SD 57501.

Let me know if you have questions. Please acknowledge receipt of this email.

Karen Schlaak

SD DENR, Water Rights Program
(605) 773-3352





DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

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

November 6, 2018

Aberdeen Energy LLC
c/o Pete Bullene
13435 870th Ave
Mina SD 57451

Dear Mr. Bullene:

Water Permit Application No. 8299-3 for industrial use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Ipswich Tribune printed at Ipswich SD (Ph # 605 426-6471) and the American News printed at Aberdeen SD (Ph # 605 225-4100). You will need to contact the newspapers 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 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 newspapers to authorize publication of your Notice and to arrange for payment. Early contact with the papers can eliminate delays. Upon receiving authorization from you, the publisher has been instructed to publish your notice. 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 the Notice on November 14, 2018. The applicant is responsible for payment.

NOTICE OF APPLICATION NO. 8299-3 to Appropriate Water

Notice is given that Aberdeen Energy LLC, c/o Pete Bullene, 13435 870th Ave, Mina SD 57451 has filed an application for a water permit to appropriate 968 acre-feet of water annually at a combined maximum pump rate of 1.33 cubic feet of water per second from two wells to be completed into the Inyan Kara Aquifer (1,500 feet deep) located in the NE 1/4 Section 28 for industrial use at an ethanol facility located in the NE 1/4 Section 28; all in T123N-R66W. This site is located 1 1/2 miles west of Mina SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8299-3 with qualifications 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. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <http://denr.sd.gov/public> or contact Eric Gronlund for this information, or other information, at the Water Rights Program address provided below.

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 26, 2018.

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.

If the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the recommendation with no hearing held before the Water Management Board. 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.

Steven M. Pirner, Secretary, Department of Environment and Natural Resources. Published once at the total approximate cost of_____.

Schlaak, Karen

From: Schlaak, Karen
Sent: Tuesday, November 06, 2018 10:06 AM
To: PBullene@glaciallakesenergy.com
Subject: Water Permit Application No. 8299-3
Attachments: 8299-3.pdf

Mr. Bullene,

Attached is the report, recommendation and information regarding the public notice for Water Permit Application No. 8299-3, Aberdeen Energy LLC. As stated in the letter it is important that you contact the two papers to authorize publication and arrange for payment.

Karen Schlaak
SD DENR, Water Rights Program
(605) 773-3352



RECEIVED

DEC 10 2018

WATER RIGHTS
PROGRAM

**AFFIDAVIT OF
PUBLICATION**

State of South Dakota)
) SS
County of Edmunds)

D.E. Gibson of said county, being, first duly sworn on oath says: That he is the publisher or an employee of the publisher of the Ipswich Tribune, a weekly newspaper, published in the City of Ipswich, in said County of Edmunds, and State of South Dakota; that he has full and personal knowledge of the facts herein stated; that said newspaper is a legal newspaper as defined in SDCL 17-2-2.1 through 17-2-2.4 inclusive; that said newspaper has been published within the said County of Edmunds and State of South Dakota, for at least one year next prior to the first publication of the attached public notice, and that the advertisement headed

**NOTICE OF APPLICATION
TO APPROPRIATE WATER**

a printed copy of which, taken from the paper in which the same was published, and which is hereto attached and made a part of this affidavit, was published in said newspaper for one successive issues.

The First publication being made on the 14 day of Nov., 20 18

The Second publication being made on the ____ day of ____, 20 ____

The Third publication being made on the ____ day of ____, 20 ____

The Fourth publication being made on the ____ day of ____, 20 ____

The Fifth publication being made on the ____ day of ____, 20 ____

That the full amount of the fee charged for the publication of the attached public notice insures to the sole benefit of the publisher; that no agreement or understanding for the division thereof has been made with any other person, and that no part thereof has been agreed to be paid to any person whomsoever; that the fees charged for the publication thereof are:

Twenty-six Dollars and
twelve cents (\$ 26.12)

Signed: D E Gibson

Subscribed and sworn to before me this 5 day of Dec., 20 18

Jana M Gibson
Notary Public - Edmunds County, South Dakota
My commission expires February 26, 2019

PUBLIC NOTICE

**NOTICE OF APPLICATION
NO. 8299-3 to
Appropriate Water**

Notice is given that Aberdeen Energy LLC, c/o Pete Bullene, 13435 870th Ave, Mina SD 57451 has filed an application for a water permit to appropriate 968 acre-feet of water annually at a combined maximum pump rate of 1.33 cubic feet of water per second from two wells to be completed into the Inyan Kara Aquifer (1,500 feet deep) located in the NE 1/4 Section 28 for industrial use at an ethanol facility located in the NE 1/4 Section 28; all in T123N-R66W. This site is located 1 1/2 miles west of Mina SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8299-3 with qualifications 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. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <http://denr.sd.gov/public> or contact Eric Gronlund for this information, or other information, at the Water Rights Program address provided below.

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 26, 2018.

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.

If the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the recommendation with no hearing held before the Water Management Board. 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.

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

Published once at the total
approximate cost of \$26.12
(Publish T 11-14)

RECEIVED

NOV 19 2018

WATER RIGHTS
PROGRAM(No. 575193)
(November 14, 2018 - 1T)NOTICE OF APPLICATION
NO. 8299-3 to Appropriate Water

AFFIDAVIT OF PUBLICATION

STATE OF SOUTH DAKOTA}

§

COUNTY OF BROWN}

Carla Ronning being duly sworn, on his/her oath says: That the AMERICAN NEWS is a daily newspaper of general circulation, printed and published in Aberdeen, Brown County, South Dakota, by the Aberdeen News Company, a corporation, and has been such a newspaper during the times hereinafter mentioned; That affiant is an employee and principal clerk of said publisher and has personal knowledge of all facts stated in this affidavit; That the advertisement headed:

Legal #575193
Notice of Application No. 8299-3

a printed copy of which is hereunto attached, was printed and published in the regular and entire issue of said newspaper, and not in a supplement thereof, once each

day for 1 successive day.
The first publication being made on the 14th day of Nov., 2018.
The second publication being made on the _____ day of _____, 2018.
The third publication being made on the _____ day of _____, 2018.
The fourth publication being made on the _____ day of _____, 2018.
The fifth publication being made on the _____ day of _____, 2018.
The sixth publication being made on the _____ day of _____, 2018;

That said newspaper is a legal newspaper published five days or more each week; with a bona fide circulation of more than two hundred copies daily; published in the English language within the said county of Brown for more than one year prior to the first publication of said notice; and printed in whole in an office maintained at the place of publication of said newspaper; That the whole amount of the fee paid for the publication of the annexed notice is \$ 50.48, which insures solely to the benefit of said publisher; That no agreement or understanding for a division thereof had been made with any other person; and That no part thereof has been agreed to be paid to any person whomsoever.

Carla Ronning

Subscribed and sworn to before me this 14th day of Nov., 2018.

Daily Circulation 10,000

Orin Delp

Notary Public, Brown County, SD.

My commission expires March 20, 2019

Notice is given that Aberdeen Energy LLC, c/o Pete Bullene, 13435 870th Ave, Mina SD 57451 has filed an application for a water permit to appropriate 968 acre-feet of water annually at a combined maximum pump rate of 1.33 cubic feet of water per second from two wells to be completed into the Inyan Kara Aquifer (1,500 feet deep) located in the NE 1/4 Section 28 for industrial use at an ethanol facility located in the NE 1/4 Section 28; all in T123N-R66W. This site is located 1 1/2 miles west of Mina SD.

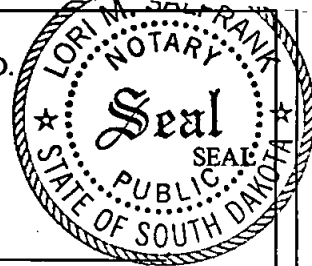
Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8299-3 with qualifications because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <http://denr.sd.gov/public> or contact Eric Gronlund for this information, or other information, at the Water Rights Program address provided below.

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 26, 2018.

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.

If the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the recommendation with no hearing held before the Water Management Board. 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.

Steven M. Pirner, Secretary, Department of Environment and Natural Resources. Published once at the total approximate cost of \$50.48.





DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

DEC 10 2018

Aberdeen Energy LLC
c/o Pete Bullene, Manager
13435 370th Ave
Mina SD 57451

Dear Mr. Bullene:

Enclosed is Water Permit No. 8399-3 authorizing construction of the water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

The application was submitted with a check for \$3,450. The filing fee is \$1,650. Therefore, \$1,800 will be refunded to Aberdeen Energy LLC. The refund check should be received within two weeks.

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,

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

enclosures