KANSAS DEPARTMENT OF AGRICULTURE

DIVISION OF WATER RESOURCES

MEMORANDUM

TO: File
DATE: May 1, 2018
FROM: Amber Herring

SUBJECT: Date Stamping Mail

On Friday, June 26th, 2015, The Administrative Assistant for Kansas Department of Agriculture, on the first floor signed for the certified mail containing the following Applications. I, Amber Herring, did not receive the documents until Monday, **June 29th, 2015**. Thus, the June 29th date is the correct date and time received by the **Division of Water Resources**.

21729

Submit To: CHIEF ENGINEER
Division of Water Resources
Kansas Department of Agriculture
1320 Research Park Drive
Manhattan, Kansas 66502
http://agriculture.ks.gov/dwr

APPLICATION FOR APPROVAL TO CHANGE THE PLACE OF USE, THE POINT OF DIVERSION OR THE USE MADE OF THE WATER UNDER AN EXISTING WATER RIGHT

State of Kansas

Filing Fee Must Accompany the Application
(Please refer to Fee Schedule on signature page of application form.)

Paragraph Nos. 1, 2, 3, 4 & 8 must be completed. Complete all other applicable portions. A topographic map or detailed plat showing the authorized and proposed points(s) of diversion and /or place of use must accompany this application.

WATER RESOURCES RECEIVED
JUN 29 2015
8:35
KS DEPT OF AGRICULTURE

1. Application is hereby made for approval of the Chief Engineer to change: ☑ Place of Use ☑ Point of Diversion ☑ Use Made of Water (Check one or more)

David W. Barfield, P.E.
JUN 26 2015
4:00
Chief Engineer
Division of Water Resources
Kansas Dept. of Agriculture

File No. 21,729 Circles 7, 8, 9, & 10.

2. Name of applicant: City of Hays, Kansas and City of Russell, Kansas (See paragraph 2 of the cover letter.)

Address: c/o Foulston Siefkin LLP, 1551 N. Waterfront Parkway, Suite 100

City, State and Zip: Wichita, Kansas 67206

Phone Number: (316) 291-9725 E-mail address: dtraster@foulston.com

What is your relationship to the water right; ☑ owner ☐ tenant ☐ agent ☐ other? If other, please explain. Hays and Russell are co-owners of the authorized place of use on the R9 Ranch in Edwards County.

Name of water use correspondent: City of Hays, Kansas

Address: P. O. Box 490, 1507 Main Street

City, State and Zip: Hays, Kansas 67601

Phone Number: (785) 628-7320 E-mail address: tdougherty@haysusa.com

3. The change(s) proposed herein are desired for the following reasons (please be specific): See Paragraph 3 of the cover letter filed concurrently with this application. The cover letter is incorporated herein by reference.

The change(s) (~~was~~) (will be) completed by See Paragraph 3 of the cover letter (Date)

For Office Use Only:
F.O. 2 GMD 5 Meets K.A.R. 5-5-1 (YES / NO) Use IRR Source G / S County ED By KAB Date 6/29/15
Code C-3 Fee $ 700 TR # Receipt Date 6/22/15 Check # 058328

of 21000- 15053312

DWR 1-120 (Revised 06/16/2014)
21729

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Assisted by: SCANNED

6/30/2015 CCM

File No. 21,729

4. The presently authorized place of use is:

Owner of Land — NAME: City of Hays, Kansas

ADDRESS: P.O. Box 490, 1507 Main Street, Hays, Kansas 67601

Sec. Twp. Range	NE¼				NW¼				SW¼				SE¼				TOTAL ACRES
	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	
29-T25S-R19W	31.25	31.25	31.25	31.25	31.25	31.25	31.25	31.25	31.25	31.25	31.25	31.25	31.25	31.25	31.25	31.25	500

List any other water rights that cover this place of use: None

Owner of Land — NAME: City of Russell, Kansas

ADDRESS: 133 W. 8th Street, Russell, Kansas 67665

Sec. Twp. Range	NE¼				NW¼				SW¼				SE¼				TOTAL ACRES
	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	
	Same as above																

List any other water rights that cover this place of use: None

(If there are more than two landowners, attach additional sheets as necessary.)

5. It is proposed that the place of use be changed to:

Owner of Land — NAME: City of Hays, Kansas

ADDRESS: P.O. Box 490, 1507 Main Street, Hays, Kansas 67601

Sec. Twp. Range	NE¼				NW¼				SW¼				SE¼				TOTAL ACRES
	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	
	The City of Hays, Kansas and its immediate vicinity and other locations as more fully described in paragraph 5 of the cover letter.																

List any other water rights that cover this place of use: *See* paragraph 5 of the cover letter.

Owner of Land — NAME: City of Russell, Kansas

ADDRESS: 133 W. 8th Street, Russell, Kansas 67665

Sec. Twp. Range	NE¼				NW¼				SW¼				SE¼				TOTAL ACRES
	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	
	The City of Russell, Kansas and its immediate vicinity and other locations as more fully described in paragraph 5 of the cover letter.																

List any other water rights that cover this place of use: *See* paragraph 5 of the cover letter.

IF MORE SPACE IS NEEDED, ATTACH ADDITIONAL SHEETS AS NECESSARY

6. The presently authorized point(s) of diversion (is) (are) irrigation well(s) described in paragraph 8, infra.
(Provide description and number of points)

7. The proposed point(s) of diversion (is) (are) one or more municipal wells; see paragraph 7 of the cover letter.
(Provide description and number of points)

List all presently authorized point(s) of diversion:

8. **Presently authorized point of diversion:**
One in the near the center Quarter of the _____ Quarter of the NE Quarter
of Section 29, Township 25 South, Range 19 (E/W),
in Edwards County, Kansas, 3,968 feet North 1,312 feet West of Southeast corner of section.
Authorized Rate 615 gpm Authorized Quantity 188 a/f
(DWR use only: Computer ID No. _____ GPS _____ feet North _____ feet West)
☐ **This point will not be changed** ☑ **This point will be changed as follows:**

Proposed point of diversion: (Complete only if change is requested)
One in the NE Quarter of the NE Quarter of the SW Quarter
of Section 29, Township 25 South, Range 19 (E/W),
in Edwards County, Kansas, 2,259 feet North 2,705 feet West of Southeast corner of section.
Proposed Rate 2,900 gpm Proposed Quantity 870.83 a/f
This point is: ☐ Additional Well ☐ Geo Center List other water rights that will use this point _____.

9. **Presently authorized point of diversion:**
One in the near the center Quarter of the _____ Quarter of the NW Quarter
of Section 29, Township 25 South, Range 19 (E/W),
in Edwards County, Kansas, 3,982 feet North 3,603 feet West of Southeast corner of section.
Authorized Rate 275 gpm Authorized Quantity 86 a/f
(DWR use only: Computer ID No. _____ GPS _____ feet North _____ feet West)
☐ **This point will not be changed** ☑ **This point will be changed as follows:**

Proposed point of diversion: (Complete only if change is requested)
One in the NE Quarter of the NE Quarter of the SW Quarter
of Section 29, Township 25 South, Range 19 (E/W),
in Edwards County, Kansas, 2,259 feet North 2,705 feet West of Southeast corner of section.
Proposed Rate 2,900 gpm Proposed Quantity 870.83 a/f
This point is: ☐ Additional Well ☐ Geo Center List other water rights that will use this point _____.

10. **Presently authorized point of diversion:**
One in the NE Quarter of the SW Quarter of the NW Quarter
of Section 29, Township 25 South, Range 19 (E/W),
in Edwards County, Kansas, 3,607 feet North 4,167 feet West of Southeast corner of section.
Authorized Rate 325 gpm Authorized Quantity 102 a/f
(DWR use only: Computer ID No. _____ GPS _____ feet North _____ feet West)
☐ **This point will not be changed** ☑ **This point will be changed as follows:**

Proposed point of diversion: (Complete only if change is requested)
One in the NE Quarter of the NE Quarter of the SW Quarter
of Section 29, Township 25 South, Range 19 (E/W),
in Edwards County, Kansas, 2,259 feet North 2,705 feet West of Southeast corner of section.
Proposed Rate 2,900 gpm Proposed Quantity 870.83 a/f
This point is: ☐ Additional Well ☐ Geo Center List other water rights that will use this point _____.

11. Describe the current condition of and future plans for any point(s) of diversion which will no longer be used. _____
See paragraph 11 of the cover letter.

IF MORE SPACE IS NEEDED, ATTACH ADDITIONAL SHEETS AS NECESSARY

6. The presently authorized point(s) of diversion (is) (are) irrigation well(s) described in paragraph 8, infra.
(Provide description and number of points)

7. The proposed point(s) of diversion (is) (are) one or more municipal wells; see paragraph 7 of the cover letter.
(Provide description and number of points)

List all presently authorized point(s) of diversion:

8. **Presently authorized point of diversion:**
One in the near the center Quarter of the ____ Quarter of the SW Quarter
of Section 29, Township 25 South, Range 19 (E/W),
in Edwards County, Kansas, 1,416 feet North 4,000 feet West of Southeast corner of section.
Authorized Rate 360 gpm Authorized Quantity 74 a/f
(DWR use only: Computer ID No. ____ GPS ____ feet North ____ feet West)
☐ **This point will not be changed** ☑ **This point will be changed as follows:**

Proposed point of diversion: (Complete only if change is requested)
One in the NE Quarter of the NE Quarter of the SW Quarter
of Section 29, Township 25 South, Range 19 (E/W),
in Edwards County, Kansas, 2,259 feet North 2,705 feet West of Southeast corner of section.
Proposed Rate 2,900 gpm Proposed Quantity 870.83 a/f
This point is: ☐ Additional Well ☐ Geo Center List other water rights that will use this point ____.

9. **Presently authorized point of diversion:**
One in the NE Quarter of the SW Quarter of the SW Quarter
of Section 29, Township 25 South, Range 19 (E/W),
in Edwards County, Kansas, 1,043 feet North 4,370 feet West of Southeast corner of section.
Authorized Rate 635 gpm Authorized Quantity 114 a/f
(DWR use only: Computer ID No. ____ GPS ____ feet North ____ feet West)
☐ **This point will not be changed** ☑ **This point will be changed as follows:**

Proposed point of diversion: (Complete only if change is requested)
One in the NE Quarter of the NE Quarter of the SW Quarter
of Section 29, Township 25 South, Range 19 (E/W),
in Edwards County, Kansas, 2,259 feet North 2,705 feet West of Southeast corner of section.
Proposed Rate 2,900 gpm Proposed Quantity 870.83 a/f
This point is: ☐ Additional Well ☐ Geo Center List other water rights that will use this point ____.

10. **Presently authorized point of diversion:**
One in the near the center Quarter of the ____ Quarter of the SE Quarter
of Section 29, Township 25 South, Range 19 (E/W),
in Edwards County, Kansas, 1,377 feet North 1,415 feet West of Southeast corner of section.
Authorized Rate 720 gpm Authorized Quantity 188 a/f
(DWR use only: Computer ID No. ____ GPS ____ feet North ____ feet West)
☐ **This point will not be changed** ☑ **This point will be changed as follows:**

Proposed point of diversion: (Complete only if change is requested)
One in the NE Quarter of the NE Quarter of the SW Quarter
of Section 29, Township 25 South, Range 19 (E/W),
in Edwards County, Kansas, 2,259 feet North 2,705 feet West of Southeast corner of section.
Proposed Rate 2,900 gpm Proposed Quantity 870.83 a/f
This point is: ☐ Additional Well ☐ Geo Center List other water rights that will use this point ____.

11. Describe the current condition of and future plans for any point(s) of diversion which will no longer be used. ____
See paragraph 11 of the cover letter.

IF MORE SPACE IS NEEDED, ATTACH ADDITIONAL SHEETS AS NECESSARY.

File No. 21,729

12. The presently authorized use of water is for irrigation purposes.
    It is proposed that the use be changed to municipal purposes.

13. If changing the place of use and/or use made of water, describe how the consumptive use will not be increased.
    See the attached discussion regarding the quantity of water to be changed to municipal use and paragraph 13 of the cover letter.

    (Please show any calculations here.)

14. It is requested that the maximum annual quantity of water be reduced to not applicable (acre-feet or million gallons).

15. It is requested that the maximum rate of diversion of water be reduced to not applicable gallons per minute (_____ c.f.s.).

16. The application must include either a topographic map or detailed plat. A U.S. Geological Survey Topographic Map, scale 1:24,000, is available through the Kansas Geological Survey, 1930 Constant Avenue, University of Kansas, Lawrence, Kansas 66047-3726 (www.usgs.gov). The map should show the location of the presently authorized point(s) of diversion. Distances North and West of the Southeast corner of the section must be shown. The presently authorized place of use should also be shown. Identify the center of the section, the section lines and the section corners and show the appropriate section, township, and range numbers on the map. In addition the following information must also be shown on the map.

    a. If a change in the location of the point(s) of diversion is proposed, show:

        1) The location of the proposed point(s) of diversion. Distances North and West of the Southeast corner of the section must be shown. Please be certain that the information shown on the map agrees with the information shown in Paragraph Nos. 9, 10 and 11 of the application.

        2) If the source of supply is groundwater, please show the location of existing water wells of any kind, including domestic wells, within ½ mile of the proposed well or wells. Identify each well as to its use and furnish name and mailing address of the property owner or owners. If there are no wells within ½ mile, please indicate so on the map.

        3) If the source of supply is surface water, the names and mailing addresses of all landowner(s) ½ mile downstream and ½ mile upstream from your property lines must be shown.

    b. If a change in the place of use is desired, show the proposed place of use by crosshatching on the map. Please be certain that the information shown on the map agrees with the information shown in Paragraph No. 5 of the application.

17. Attach documentation to show the change(s) proposed herein will not impair existing water rights and relates to the same local source of supply as to which the water right relates. This information may include statements, plats, geology reports, well logs, test hole logs, and other information as necessary information to show the above. Additional comments may be made below.
    See paragraph 17 of the cover letter.

18. If the proposed change(s) does not meet all applicable rules and regulations of the Kansas Water Appropriation Act, please identify the rules and regulations for which you request a waiver. State the reason why a waiver is needed and why the request should be granted. Attach documentation showing that granting the request will not impair existing water rights and will not prejudicially and unreasonably affect the public interest.
    See paragraph 7 of the cover letter.

IF MORE SPACE IS NEEDED, ATTACH ADDITIONAL SHEETS AS NECESSARY

File No. 21,729

Any use of water that is not as authorized by the water right or permit to authorize water **before** the chief engineer approves this application is a violation of the Kansas Water Appropriation Act for which criminal or civil penalties may be assessed. Such violation is a class C misdemeanor, punishable by a fine not to exceed $500 and/or a term of confinement not to exceed one month in the county jail. K.S.A. 82a-728(b). Civil penalties shall be not less than $100 nor more than $1,000 per violation. In the case of a continuing violation, each day such violation continues may be deemed a separate violation. In addition to these penalties the water right may be modified or suspended. K.S.A. 82a-737, as amended.

The application must be signed by all owners of the place of use authorized under the water right and his or her spouse, if married. Please indicate if there is no spouse. If land is being purchased under contract, the seller must sign as landowner until such time as the contract is completed.

In the event that all applicants cannot appear before one notary public, they may as necessary sign separate copies of the application before any notary public conveniently available to them. All copies signed in this manner shall be considered to be valid parts of the application.

If the request is signed on behalf of any Owner by someone with legal authority to do so (for example, an agent, one who has power of attorney, or an executor, executrix, conservator), it will be necessary to attach proper documents showing such authority.

I declare that I am an owner of the currently authorized place of use as identified herein, or that I represent all such owners and am authorized to make this application on their behalf, and declare further that the statements contained herein are true, correct, and complete. By filing this application I authorize the chief engineer to permanently reduce the quantity of water and/or rate of diversion as specified in sections 14 and 15 of this application.

Dated at Russell, Russell County, Kansas, this 23rd day of June, 20 15.

(Owner)	(Spouse)
City of Hays, Kansas, by Toby Dougherty, City Manager (Please Print)	(Please Print)
(Owner)	(Spouse)
(Please Print)	(Please Print)
(Owner)	(Spouse)
(Please Print)	(Please Print)

State of Kansas)
) SS
County of Russell)

I hereby certify that the foregoing application was signed in my presence and sworn to before me this 23rd day of June.

NOTARY PUBLIC - State of Kansas
MALINDA MORSE
My Appt. Expires 6/15/18

Malinda Morse
Notary Public

My Commission Expires 6/15/18.

FEE SCHEDULE

Each application to change the place of use, the point of diversion or the use made of the water under this section shall be accompanied by the application fee set forth in the schedule below:

(1) Application to change a point of diversion 300 feet or less $100
(2) Application to change a point of diversion more than 300 feet $200
(3) Application to change the place of use $200
(4) Application to change the use made of the water $300

Make check payable to **Kansas Department of Agriculture**.

WATER RESOURCES
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JUN 29 2015
KS DEPT OF AGRICULTURE

File No. 21,729

Any use of water that is not as authorized by the water right or permit to authorize water **before** the chief engineer approves this application is a violation of the Kansas Water Appropriation Act for which criminal or civil penalties may be assessed. Such violation is a class C misdemeanor, punishable by a fine not to exceed $500 and/or a term of confinement not to exceed one month in the county jail. K.S.A. 82a-728(b). Civil penalties shall be not less than $100 nor more than $1,000 per violation. In the case of a continuing violation, each day such violation continues may be deemed a separate violation. In addition to these penalties the water right may be modified or suspended. K.S.A. 82a-737, as amended.

The application must be signed by all owners of the place of use authorized under the water right and his or her spouse, if married. Please indicate if there is no spouse. If land is being purchased under contract, the seller must sign as landowner until such time as the contract is completed.

In the event that all applicants cannot appear before one notary public, they may as necessary sign separate copies of the application before any notary public conveniently available to them. All copies signed in this manner shall be considered to be valid parts of the application.

If the request is signed on behalf of any Owner by someone with legal authority to do so (for example, an agent, one who has power of attorney, or an executor, executrix, conservator), it will be necessary to attach proper documents showing such authority.

I declare that I am an owner of the currently authorized place of use as identified herein, or that I represent all such owners and am authorized to make this application on their behalf, and declare further that the statements contained herein are true, correct, and complete. By filing this application I authorize the chief engineer to permanently reduce the quantity of water and/or rate of diversion as specified in sections 14 and 15 of this application.

Dated at Russell, Russell County, Kansas, this 23rd day of June, 20 15.

(Owner)	(Spouse)
City of Russell, Kansas, by Jon Quinday, City Manager	
(Please Print)	(Please Print)
(Owner)	(Spouse)
(Please Print)	(Please Print)
(Owner)	(Spouse)
(Please Print)	(Please Print)

State of Kansas)
) SS
County of Russell)

I hereby certify that the foregoing application was signed in my presence and sworn to before me this 23rd day of June, 20 15.

Malinda Morse
Notary Public

My Commission Expires 6/15/18.

NOTARY PUBLIC - State of Kansas
MALINDA MORSE
My Appt. Expires 6/15/18

FEE SCHEDULE

Each application to change the place of use, the point of diversion or the use made of the water under this section shall be accompanied by the application fee set forth in the schedule below:

(1) Application to change a point of diversion 300 feet or less $100
(2) Application to change a point of diversion more than 300 feet $200
(3) Application to change the place of use $200
(4) Application to change the use made of the water $300

Make check payable to **Kansas Department of Agriculture**.

WATER RESOURCES
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JUN 29 2015
KS DEPT OF AGRICULTURE

Proposed Rate and Quantity

The Cities are requesting a total of 870.83 acre-feet and 2,900 gallons per minute from the six wells associated with this water right, all of which will be diverted from new point of diversion A, as shown on Exhibit N. New point of diversion A will have a cumulative total of 870.83 acre-feet and 2,900 gallons per minute.

13. If changing the place of use and the use made of water, describe how the consumptive use will not be increased:

The following discussion is subject to paragraph 13 of the cover letter regarding consumptive use.

DWR Regulation, K.A.R. 5-5-9(a), provides that the default calculation used to address the consumptive use issue allows the conversion of 540 acre-feet for municipal use.[1] As discussed below, 500 approved acres were irrigated during the perfection period; 500 acres multiplied by the Edwards County NIR for corn of 1.08 acre-feet per acre equals 540 acre-feet.[2]

That same regulation goes on to allow the change to be based on the net consumptive use actually made during the perfection period.[3]

Quantity authorized and perfected

The permit was issued on February 27, 1976, granting the applicant the right to divert up to 1,000 acre-feet annually at a rate of up to 2,900 gallons per minute for irrigation use[4] on 500 acres in Section 29 T25S-R19W,[5] or 2.0 acre-feet per acre. The rate for the points of diversion near the center of the southwest quarter of section 29 was further limited by the certificate to 700 gpm when combined with the well in the northeast quarter of the southwest quarter of the southwest quarter of that same section.[6] There is also an overall rate limitation of 2,900 gallons per minute.

In the cover letter transmitting the permit, DWR made findings of fact stating that "the proposed use is for a beneficial purpose and is *within reasonable limitations.* If priorities are observed and respected, the proposed use will neither impair any use under existing water rights nor prejudicially and unreasonably affect the public interest."[7]

The Field Inspection Reports indicate that 897 of the 1,000 acre-feet authorized by the permit were lawfully perfected.

- 209 acre-feet were applied to 125 approved acres.[8]
- 110 acre-feet[9] and 94 acre-feet[10] (204 acre-feet) were applied to 125 approved acres.

[1] K.A.R. 5-5-9(a) and (a)(1).
[2] K.A.R. 5-5-12, NIR Requirements.
[3] K.A.R. 5-5-9(b).
[4] Permit, HAYS000671, Ex. A.
[5] Application, HAYS000664, Ex. B.
[6] Certificate, HAYS000685, Ex. C.
[7] February 27, 1976, letter (emphasis added), HAYS000670, Ex. D.
[8] FIR, HAYS000654, Ex. E.

- 145 acre-feet[11] and 94 acre-feet[12] (239 acre-feet) were applied to 125 approved acres.
- 245 acre-feet were applied to 125 approved acres.[13]

While the certificate limits the total quantity to 752 acre-feet based on DWR's after-the-fact determination that 1.5 acre-feet per acre was a reasonable quantity for irrigation use, DWR did not have jurisdiction to make this reduction.[14]

Since the perfection period has expired, the "authorized quantity" for this water right is the 897 acre-feet actually perfected even though it exceeds the certified quantity.

There are at least two alternative approaches to calculating consumptive use.

NIR for Alfalfa

The FIRs state that alfalfa was grown on each of these circles during the year of record.[15] According to the Kansas Irrigation Guide, the NIR for the 50% chance rainfall in Edwards County is 13 inches (1.083333 feet) for corn and 20.9 (1.741666 feet) inches for alfalfa.

Since alfalfa was grown on the authorized place of use in at least one year during the perfection period, it is reasonable to use the NIR for alfalfa, which yields a total quantity of 870.83 acre-feet consumed. While this quantity is greater than the quantity set out in the certificate, it is less than the 897 perfected acre-feet, the "maximum annual quantity authorized by the water right."[16]

An alternative approach

DWR's use of the NIR of 1.08 feet of water for corn is based on its maximum gross irrigation requirement of 1.5 acre-feet per acre.[17] The regulation allows the conversion of 72% of the maximum quantity to a new use; in other words, it assumes that 28% of the quantity diverted returns to the aquifer.

If 28% of the 897 acre-feet legally applied during the perfection period percolates back to the aquifer, then 72%, or 645.84 acre-feet, should be available for conversion to municipal use. While this quantity is greater than the quantity set out in the certificate, it is less than the 897 perfected acre-feet, the "maximum annual quantity authorized by the water right."

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[9] FIR, HAYS000640, Ex. F.

[10] FIR, HAYS000647, Ex. G.

[11] FIR, HAYS000618, Ex. H.

[12] FIR, HAYS000626, Ex. I.

[13] FIR, HAYS000634, Ex. J.

[14] Certificate, HAYS000685-687, Ex. C; Doug Bush Memo dated March 17, 1987, HAYS000679-680, Ex. K; and *Clawson v. Kansas Dept. of Agriculture, Div. of Water Resources,* 49 Kan. App. 2d 789, 315 P.3d 896 (2013).

[15] FIRs, HAYS000621 (Ex. H), 629 (Ex. I), 637 (Ex. J), 643 (Ex. F), 650 (Ex. G), and 657 (Ex. E).

[16] *See* K.A.R. 5-5-9(a)(4).

[17] Administrative Policy No. 86-8, dated Nov. 5, 1986, Ex. L, stating that: "In that area of Kansas located between the Range 5 East/Range 6 East Line and the Range 20 West/Range 21 West line, the maximum allowable quantity shall not exceed an average of 1.50 acre-feet per acre irrigated." *See also,* K.A.R. 5-3-24 and Doug Bush Memo dated March 17, 1987, HAYS000679-680, Ex. K.

The Applicants request that DWR approve a total of 870.83 acre-feet for municipal use.

EXHIBIT
A

THE STATE OF KANSAS

STATE BOARD OF AGRICULTURE
Roy Freeland, *Secretary*

DIVISION OF WATER RESOURCES
Guy E. Gibson, *Chief Engineer*

APPROVAL OF APPLICATION
and
PERMIT TO PROCEED

(This Is Not a Certificate of Appropriation)

This is to certify that I have examined Application No. 21,729 of the applicant

Midwest Land and Cattle Company
c/o John Carson, Manager
Box 208
Kinsley, Kansas 67547

for a permit to appropriate water to beneficial use, together with the maps, plans and other submitted data, and that the application is hereby approved and the applicant is hereby authorized, subject to vested rights and prior appropriations, to proceed with the construction of the proposed diversion works and to proceed with all steps necessary for the application of the water to the approved and proposed beneficial use and otherwise perfect the proposed appropriation subject to the following terms, conditions and limitations:

1. That the priority date assigned to such application is January 2, 1974.

2. That the water sought to be appropriated shall be used for irrigation on the land described in the application.

3. That the source from which the appropriation is made shall be from ground water in the drainage basin of the Arkansas River to be withdrawn by means of six (6) wells: one well near the center of the Northeast Quarter (NE¼)[9], one well near the center of the Northwest Quarter (NW¼)[8], one well in the Northeast Quarter of the Southwest Quarter of the Northwest Quarter (NE¼ SW¼ NW¼)[6], one well near the center of the Southwest Quarter (SW¼)[1], one well in the Northeast Quarter of the Southwest Quarter of the Southwest Quarter (NE¼ SW¼ SW¼)[7] and one well near the center of the Southeast Quarter (SE¼)[10] of Section 29, Township 25 South, Range 19 West, in Edwards County, Kansas, located substantially as shown on the aerial photograph accompanying the application.

4. That the appropriation sought shall be limited to a maximum diversion rate not in excess of

2900 gallons per minute (6.46 c.f.s.)

and to a quantity of not to exceed 1000 acre-feet for any calendar year.

(OVER)

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5. That installation of works for diversion of water shall be completed on or before December 31, 19 77. The applicant shall notify the Chief Engineer of the Division of Water Resources when construction of the works has been completed.

6. That the proposed appropriation shall be perfected by the actual application of water to the proposed beneficial use on or before December 31, 19 81.

7. That the applicant shall maintain records from which the quantity of water actually diverted during each calendar year may be readily determined. Such records shall be furnished to the Chief Engineer as soon as practicable after the close of each calendar year.

8. That the applicant shall not be deemed to have acquired a water appropriation for a quantity in excess of the amount approved herein nor in excess of the amount found by the Chief Engineer to have been actually used for the approved purpose during one calendar year subsequent to approval of the application and within the time specified or any authorized extension thereof.

9. That the use of water herein authorized shall not impair any use under existing water rights nor prejudicially and unreasonably affect the public interest.

10. That the right of the appropriator shall relate to a specific quantity of water and such right must allow for a reasonable raising or lowering of the static water level and for the reasonable increase or decrease of the streamflow at the appropriator's point of diversion.

11. That this permit does not constitute authority under K. S. A. 82a-301 to 305 to construct any dam or other obstruction; it does not give any right-of-way, or authorize any injury to, or trespass upon, public or private property; it does not obviate the necessity of obtaining assent from Federal or Local Governmental authorities when necessary.

12. That failure without cause to comply with provisions of the permit and its terms, conditions and limitations will result in the forfeiture of the priority date, revocation of the permit and dismissal of the application.

Dated this 27th day of February 1976

Guy E. Gibson
Guy E. Gibson, Chief Engineer
Division of Water Resources
Kansas State Board of Agriculture

DIVISION OF WATER RESOURCES
GUY E. GIBSON
CHIEF ENGINEER
KANSAS STATE BOARD OF AGRICULTURE

WATER RESOURCES RECEIVED
JUN 29 2015
KS DEPT OF AGRICULTURE

476-H 0-73-8M SETS

EXHIBIT
B

2

THE STATE OF KANSAS

STATE BOARD OF AGRICULTURE
Roy Freeland, *Secretary*

DIVISION OF WATER RESOURCES
Guy E. Gibson, *Chief Engineer*

Rec'd check $50.00 1-2-74
Ck from: Wilson & Flame.
SA

NUMBER 21,729

APPLICATION FOR PERMIT TO APPROPRIATE WATER FOR BENEFICIAL USE

[redacted]

(The Statutory Filing Fee of $50.00 Must Accompany the Application)

To the Chief Engineer of the Division of Water Resources, Kansas State Board of Agriculture:

(Mr.) (Mrs.) (Miss) MIDWEST LAND & CATTLE COMPANY * SEE LETTER DATED 8-8-75 SEE C/O JOHN CARSON, MANAGER ~~Kinsley Joint Venture~~ whose post office address is BOX 208, KINSLEY, KANSAS 67547 ~~c/o Andrew J. Moore, Attorney at law, P.O. Box 588, Woodward, Oklahoma 73801~~ and makes application to the Chief Engineer of the Division of Water Resources, Kansas State Board of Agriculture, for a permit to appropriate for beneficial use such unappropriated ground water (surface water or groundwater) as may be available in Arkansas River Basin (name of stream or drainage basin) in the county of Edwards, state of Kansas, to the extent and in accordance with the particulars hereinafter described:

1. The quantity of water desired is in the amount of 1000 acre feet (acre feet or million gallons) per year, to be diverted at a maximum rate of 2900 gals per minute (gallons per minute or cubic feet per second)

2. The location of the proposed wells or other works for diversion of water is in the ~~A~~ ~~quarter of the~~ ~~quarter of the~~ ~~quarter~~ of section 29, township 25, range 19, in Edwards County, Kansas. Center of each quarter section Plus one well in ~~SW/4~~ NE/4 of ~~NE/4~~ SW/4 of SW/4 of said section & one well in the NE/4 of the SW/4 of the NW/4 of sec. 29.

3. The water is intended to be appropriated for:

			Amount
(a)	Domestic use	( )	
(b)	Municipal use	( )	
(c)	Irrigation use	(x)	1000 acre ft. ~~2900 gals per min~~
(d)	Industrial use	( )	
(e)	Recreational use	( )	
(f)	Water Power use	( )	

(check intended use or uses and show intended quantity for each use)

DIVISION OF WATER RESOURCES RECEIVED DEC 02 1974 9:05 a.m. STATE BOARD OF AGRICULTURE

DIVISION OF WATER RESOURCES RECEIVED OCT 15 1975 STATE BOARD OF AGRICULTURE

Date stamp over Received 1-2-74 9:05 a.m dw

DIVISION OF WATER RESOURCES RECEIVED JUL 24 1975 STATE BOARD OF AGRICULTURE

RECEIVED JUL 15 1974 FIELD OFFICE DIVISION OF WATER RESOURCES STAFFORD

RECEIVED MAR 8 1976 HAYS000664 * C. FIELD OFFICE DIVISION OF WATER RESOURCES 9-9-75 FORD

SCANNED MICROFILMED WATER RESOURCES RECEIVED JUN 29 2015 KS DEPT OF AGRICULTURE

4. If for municipal use, attach tables or curves showing past, present and estimated future population and water requirements of the city.

5. If for industrial use, attach tables or curves showing past, present and estimated future water requirements.

6. If for irrigation use list below or attach name and address of each landowner and the legal description of the lands to be irrigated by designating the actual number of acres to be irrigated in each forty acre tract or fractional portion thereof: ~~Kinsley Joint Venture is a partnership with the following owners:~~ Kinsley

~~J. D. Hodges, 1921 Broadmoor, Woodward, Oklahoma~~
~~W. A. McQuiddy, 1210 S. Fordham, Perryton, Texas~~ 79070
~~Drew Ellis, 823 S. Indiana, Perryton, Texas~~
~~John O. Ellis Jr., P. O. Box 610, Perryton, Texas~~
~~H. C. Brillhart Jr., P. O. Box 576, Perryton, Texas~~
~~Word B. Sherrill, P. O. Box 399, Perryton, Texas~~

MIDWEST LAND & CATTLE C/O JOHN CARSON
BOX 208
KINSLEY, KANSAS
67547

Owner of Land—NAME: ~~Kinsley Joint Venture~~ * SEE-SEE LETTER DATED 8-8-75

ADDRESS: ~~c/o Andrew J. Moore, Attorney, P.O. Box 588, Woodward, Oklahoma 7380~~

Sec.	Twp.	Range	NE¼				NW¼				SW¼				SE¼				Total
			NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	
29	25	19																	
29	25	19	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	500

Owner of Land—NAME: _____

ADDRESS: _____

Sec.	Twp.	Range	NE¼				NW¼				SW¼				SE¼				Total
			NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	

Owner of Land—NAME: _____

ADDRESS: _____

Sec.	Twp.	Range	NE¼				NW¼				SW¼				SE¼				Total
			NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	

* Guy Ellis AYS000665
9-9-75

7. The works for diversion of water will consist of One well and pump in the center of each quarter section which will be the pivot of a circle irrigation system; with one pivot, in SW/4, having two wells and pumps & pivot in NW/4 having two pumps & wells
(wells, pumps, etc.)

and will be completed by already completed
(Date)

8. The first actual application of water for the beneficial use proposed was or is estimated to be already used- use begun with 1973 growing season
(Date)

9. The application must be accompanied either by a detailed plat prepared from an actual survey or by an aerial photograph of the area.

The plat or aerial photograph should show

(a) Location of the proposed point or points of diversion

(b) Location of the pipe lines, canals, reservoirs or other facilities for conveying water from the point of diversion to the place of use

(c) If for irrigation, show the location of the land proposed to be irrigated

(d) If for industrial or other use, show the location of the land where water will be used.

10. List and describe other applications filed or vested rights beld by applicant:

None

11. The relation of the subscriber to this application is that of Attorney
(Owner, agent or otherwise)

and he is authorized to make this application in behalf of the interest affected.

Dated at Kinsley, Kansas, this 15 day of Dec, 1973

KINSLEY JOINT VENTURE

D. Allen Frame

By D. Allen Frame, Applicant Attorney

By
(Agent or Officer)

NOTE:

1 cubic foot per second = 448.8 gallons per minute = 646,317 gallons per day = 1.98 acre feet per day.
1 million gallons per day = 1.547 cubic feet per second = 3.07 acre feet per day.
1 acre foot = 43,560 cubic feet = 325,851 gallons.

M1-539 5-73-10M SETS

Date of map error
Received 1-2-74
dw

The four circle systems ~~shown on this map~~ are all within Section 29, Township 25, Range 19. Each circle system has a radius of 1320 feet and is served by pump and well at the pivot. In addition, the circle system in the SW/4 has one well and one pump at point X (at the pivot) and one well and pump at point Y which is ~~1/8th of a mile~~ 500 southwest of point X. Point X and point Y are joined by a pipe line. Each of these circle systems cover 125 acres.

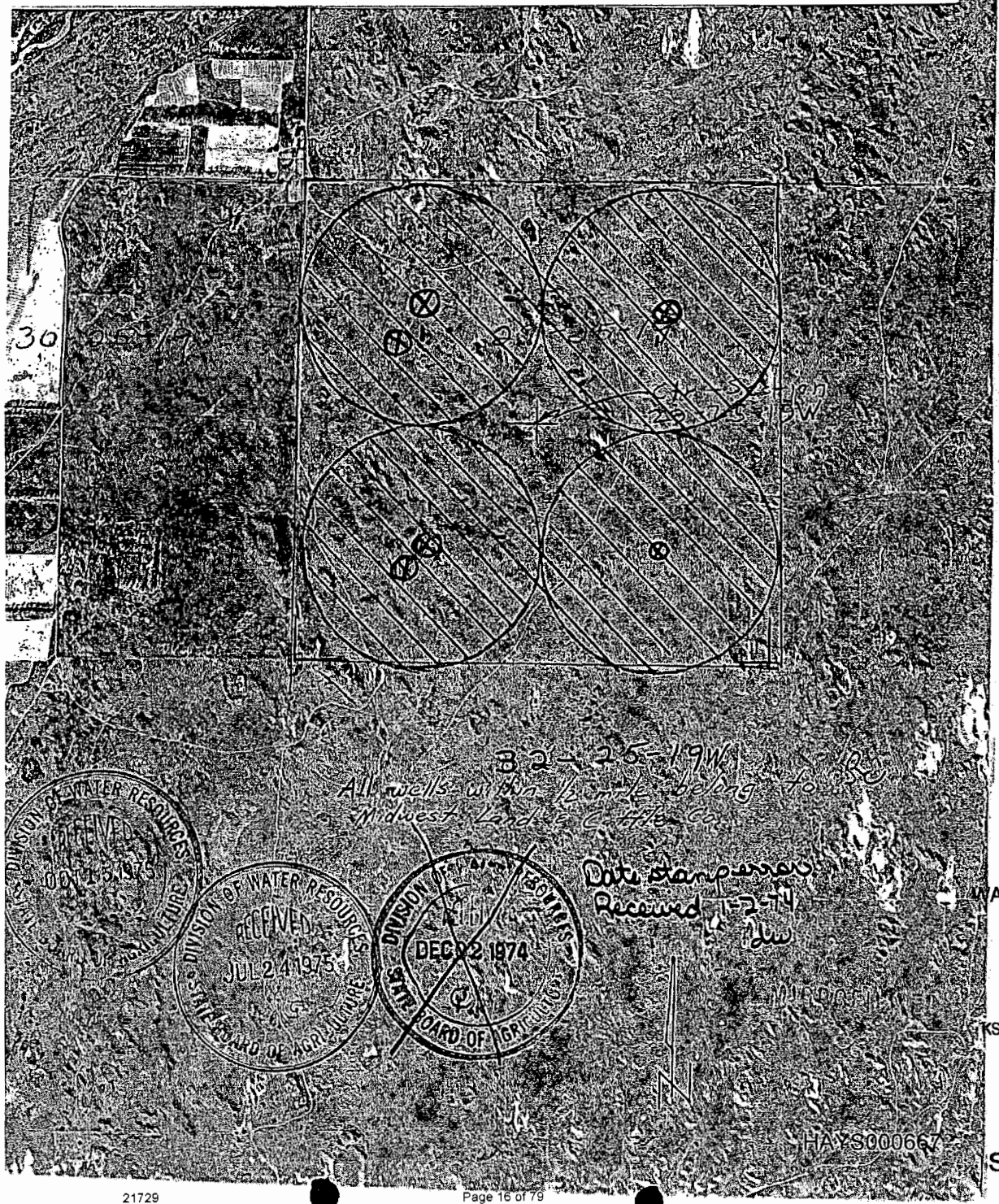

EXHIBIT
C

THE STATE OF KANSAS

STATE BOARD OF AGRICULTURE
~~Harland E. Priddle, Secretary~~
Sam Brownback, Secretary

DIVISION OF WATER RESOURCES
David L. Pope, *Chief Engineer-Director*

CERTIFICATE OF APPROPRIATION
FOR BENEFICIAL USE OF WATER
WATER RIGHT, File No. 21,729
PRIORITY DATE January 2, 1974

WHEREAS, It has been determined by the undersigned that construction of the appropriation diversion works has been completed, that water has been used for beneficial purposes and that the appropriation right has been perfected, all in conformity with the conditions of approval of the application pursuant to the water right referred to above and in conformity with the laws of the State of Kansas.

NOW, THEREFORE, Be It Known that DAVID L. POPE, the duly appointed, qualified and acting Chief Engineer of the Division of Water Resources of the Kansas State Board of Agriculture, by authority of the laws of the State of Kansas, and particularly K.S.A. 82a-714, does hereby certify that, subject to vested rights and prior appropriation rights, the appropriator is entitled to make use of groundwater in the drainage basin of the Arkansas River to be withdrawn by means of six (6) wells: one (1) well located near the center of the Northeast Quarter (NE¼) of Section 29, more particularly described as being near a point 3,968 feet North and 1,312 feet West of the Southeast corner of said section, at a diversion rate not in excess of 615 gallons per minute (1.37 c.f.s.) and in a quantity not to exceed 188 acre-feet per calendar year; one (1) well located near the center of the Northwest Quarter (NW¼) of Section 29, more particularly described as being near a point 3,982 feet North and 3,603 feet West of the Southeast corner of said section, at a diversion rate not in excess of 275 gallons per minute (0.61 c.f.s.) and in a quantity not to exceed 86 acre-feet per calendar year; one (1) well located in the Northeast Quarter of the Southwest Quarter of the Northwest Quarter (NE¼ SW¼ NW¼) of Section 29, more

Re: File No. 21,729

particularly described as being near a point 3,607 feet North and 4,167 feet West of the Southeast corner of said section, at a diversion rate not in excess of 325 gallons per minute (0.72 c.f.s.) and in a quantity not to exceed 102 acre-feet per calendar year; one (1) well located near the center of the Southwest Quarter (SW¼) of Section 29, more particularly described as being near a point 1,416 feet North and 4,000 feet West of the Southeast corner of said section, at a diversion rate not in excess of 360 gallons per minute (0.80 c.f.s.) and in a quantity not to exceed 74 acre-feet per calendar year; one (1) well located in the Northeast Quarter of the Southwest Quarter of the Southwest Quarter (NE¼ SW¼ SW¼) of Section 29, more particularly described as being near a point 1,043 feet North and 4,370 feet West of the Southeast corner of said section, at a diversion rate not in excess of 635 gallons per minute (1.41 c.f.s.) and in a quantity not to exceed 114 acre-feet per calendar year; and one (1) well located near the center of the Southeast Quarter (SE¼) of Section 29, more particularly described as being near a point 1,377 feet North and 1,415 feet West of the Southeast corner of said section, at a diversion rate not in excess of 720 gallons per minute (1.60 c.f.s.) and in a quantity not to exceed 188 acre-feet per calendar year, all in Township 25 South, Range 19 West, Edwards County, Kansas, for irrigation use on the following described property:

31.25 acres in the Northeast Quarter of the Northeast Quarter (NE¼ NE¼),
31.25 acres in the Northwest Quarter of the Northeast Quarter (NW¼ NE¼),
31.25 acres in the Southwest Quarter of the Northeast Quarter (SW¼ NE¼),
31.25 acres in the Southeast Quarter of the Northeast Quarter (SE¼ NE¼),
31.25 acres in the Northeast Quarter of the Northwest Quarter (NE¼ NW¼),
31.25 acres in the Northwest Quarter of the Northwest Quarter (NW¼ NW¼),
31.25 acres in the Southwest Quarter of the Northwest Quarter (SW¼ NW¼),
31.25 acres in the Southeast Quarter of the Northwest Quarter (SE¼ NW¼),
31.25 acres in the Northeast Quarter of the Southwest Quarter (NE¼ SW¼),
31.25 acres in the Northwest Quarter of the Southwest Quarter (NW¼ SW¼),
31.25 acres in the Southwest Quarter of the Southwest Quarter (SW¼ SW¼),
31.25 acres in the Southeast Quarter of the Southwest Quarter (SE¼ SW¼),
31.25 acres in the Northeast Quarter of the Southeast Quarter (NE¼ SE¼),
31.25 acres in the Northwest Quarter of the Southeast Quarter (NW¼ SE¼),
31.25 acres in the Southwest Quarter of the Southeast Quarter (SW¼ SE¼),
31.25 acres in the Southeast Quarter of the Southeast Quarter (SE¼ SE¼),

a total of 500.00 acres in Section 29, Township 25 South, Range 19 West, Edward County, Kansas.

The rate of diversion by means of the well located near the center of the Southwest Quarter (SW¼) of Section 29, more particularly described as being near a point 1,416 feet North and 4,000 feet West of the Southeast corner of said section, in Township 25 South, Range 19 West, Edwards County, Kansas, is further limited to that which when combined with the well located in the Northeast Quarter of the Southwest Quarter of the Southwest Quarter (NE¼ SW¼ SW¼) of Section 29, more particularly described as being near a point 1,043 feet North and 4,370 feet West of the Southeast corner of said section, in Township 25 South, Range 19 West, Edwards County, Kansas, will provide a diversion rate not in excess of 700 gallons per minute (1.56 c.f.s.) when the wells are run simultaneously.

This appropriation is further limited to a diversion rate which when all wells operate simultaneously will provide a diversion rate not in excess of 2,900 gallons per minute (6.46 c.f.s.) for irrigation use on the property described herein.

The appropriator shall maintain records from which the quantity of water actually diverted during each calendar year may be readily determined. Such records shall be furnished to the Chief Engineer by March 1 of each year following.

The appropriator shall maintain, in an operating condition satisfactory to the Chief Engineer, all check valves installed for the prevention of chemical or other foreign substance pollution of the water supply.

The appropriation right as perfected is appurtenant to and severable from the land herein described.

The appropriation right shall be deemed abandoned and shall terminate when without due and sufficient cause no lawful beneficial use is made of water under this appropriation for three (3) successive years.

The right of the appropriator shall relate to a specific quantity of water and such right must allow for a reasonable raising or lowering of the static water level and for the reasonable increase or decrease of the stream flow at the appropriator's point of diversion.

IN WITNESS WHEREOF, I have hereunto set my hand at my office at Topeka, Kansas, this 5th day of June, 1987.

DIVISION OF WATER RESOURCES
DAVID L. POPE
CHIEF ENGINEER
KANSAS STATE BOARD OF AGRIC.

David L. Pope, P.E.
Chief Engineer
Division of Water Resources
Kansas State Board of Agriculture

State of Kansas)
) SS
County of Shawnee)

The foregoing instrument was acknowledged before me this 5th day of June, 1987, by David L. Pope, P.E., Chief Engineer, Division of Water Resources, Kansas State Board of Agriculture.

DENISE J. WATERS
NOTARY PUBLIC
STATE OF KANSAS

Notary Public

My appointment expires: March 1, 1990

MICROFILMED

(Record in the Office of the Register of Deeds in the county or counties wherein the point of diversion is located)

WATER APPROPRIATION
CERTIFICATE
No. 16,034

STATE OF KANSAS

Water Right, File No. 21,729

State of Kansas, County, ss.

Filed for record this ____ day of ____ 198__

at ____ o'clock __ m. and

recorded in Book ____ Page ____

Fee $ ____

Register of Deeds

RECEIVED
JUN 29 1987
FIELD OFFICE
DIVISION OF WATER RESOURCES
STAFFORD

WATER RESOURCES RECEIVED
JUN 29 2015
KS DEPT OF AGRICULTURE

HAYS000687

SCANNED

EXHIBIT
D

E-N 2

2/27/76

February 27, 1976

Midwest Land and Cattle Company
c/o John Carson, Manager
Box 208
Kinsley, Kansas 67547

Re: Appropriation of Water
Application No. 21,729
ED

Gentlemen:

Your application has been examined and is found to be in proper form. Further, we find that the proposed use is for a beneficial purpose and is within reasonable limitations. If priorities are observed and respected, the proposed use will neither impair any use under existing water rights nor prejudicially and unreasonably affect the public interest. It is presumed that the application is made in good faith, and that you are ready to proceed with the proposed diversion works and the application of water to the proposed use. The application has, therefore, been approved.

There is enclosed the approval of the application authorizing you to proceed with construction of the proposed diversion works, to divert such unappropriated water as may be available from the source and at the location specified in the approval of application, and to use it for the purpose and at the location described in the application.

There is also enclosed a memorandum setting forth the procedure to obtain a certificate of appropriation which will establish the extent of your water rights.

Should you have any questions or if we can be of any assistance to you, please feel free to write or call us.

Very truly yours,

Riley M. Dixon
Hydrologist

RMD:eel

Encs.

EXHIBIT E 21726

DIVISION OF WATER RESOURCES—KANSAS STATE BOARD OF AGRICULTURE

FIELD INSPECTION REPORT

☐ Partial
☒ Full
☐ Re-Test

Test 1 of 6 Diversion points

Firm/Field Office Pumping Plant Testing, Inc.

Application No. 21729 Date 9/30/86 Inspector Ebert/Klassen

Field Area No. 2 G.M.D. No. 5 County Edwards

Current Landowner Connecticut General Life Insurance % Agri. Affiliates

Address Box 1162 North Platte, NE 69103 Attn. Jerry Weaver

☐ Additional landowners and addresses identified in remarks section.

Water Use Classification: 1. Domestic ( ) 2. Industrial ( ) 3. Irrigation ☒
4. Municipal ( ) 5. Recreation ( ) 6. Stockwatering ( ) 7. Water Power ( )

Groundwater ☒ Drainage Basin Arkansas River

Surface Water ( ) Stream

Authorized Point of Diversion: 1well NC NE¼ Sec. 29, T. 25, R. 19
Approximately ft. North and ft. West of SE corner of Sec.

Actual Point of Diversion: 1well NC NE¼ Sec. 29, T. 25, R. 19
Approximately 3968 ft. North and 1312 ft. West of SE corner of Sec. 29
How were distances determined? Scaled from ASCS photo

"Approved" Quantity 1000 AF "Approved" Diversion Rate 2900 g.p.m. (6.46 c.f.s.)

Priority Date Jan. 2, 1974 Approval of Application Date Feb. 27, 1976

Perfection Date Dec. 31, 1981

Other applications covering land and/or point of diversion None
(include discussion of overlapping files in remarks section)

LAND TO BE INCLUDED ON CERTIFICATE:

S	T	R	NE¼				NW¼				SW¼				SE¼				TOTAL ACRES
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
29	25	19	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	500

LAND IRRIGATED—YEAR OF RECORD 1985

S	T	R	NE¼				NW¼				SW¼				SE¼				TOTAL ACRES
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
29	25	19	31¼	31¼	31¼	31¼	(well in NE¼ only)												125

APPLICATION OF WATER:
Year of Record 1985 Hours Pumped 1850 or Quantity 209 AF

Normal Operating G.P.M. 614 Equiv. c.f.s. 1.37

Maximum Operating G.P.M. Equiv. c.f.s.

DIVISION OF WATER RESOURCES RECEIVED JAN 21 1987 STATE BOARD OF AGRICULTURE

FOR D.W.R. USE ONLY

Year of Record 1985 Extension of time requested: Yes ____ No V

Total No. of Hours on land covered by this application 1850

Ac. Ft. Applied = 1,850 hrs. × 614 g.p.m. × 4.419 / (24 × 1000) = 209 AF

RECEIVED

Acres of "Approved" Land irrigated 125

Ac. Ft. on "Approved" Land 209 (0.42 Ac. Ft./Ac.)

Ac. Ft. Used on "Approved" Land at "Approved" Rate or Less 209

Proration Calculations 125 acres irrigated x 1.5 A.F. per acre = 188 A.F.

DIVISION OF WATER RESOURCES

Perfected Rate 615 g.p.m. Perfected Quantity 188 AF

DWR-1917a Completed by Douglas E. Bush 3-17-91 Revised March 1986

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HAYS000654

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GENERAL INFORMATION ON IRRIGATION SYSTEM:

☒ Center Pivot ☐ High Pressure ☒ Low Pressure

Manufacturer Olson Model 103P Serial No. 3943

Drive Electric Length of Pivot Arm ____

Design Pressure-Pivot ____ p.s.i. Operating Pressure-Pivot ____ p.s.i.

End Gun? yes End Gun Rating ____ g.p.m. Toro

Is end gun operating during test? yes

☐ Gravity Irrigation (show test set on sketch)

Number of gates open ____ Normal Pipe Size ____

Pressure at pump ____ p.s.i.

☐ Other Type ____

Manufacturer ____ Model ____ Serial No. ____

Unusual Conditions/Other Info. ____

POWER UNIT INFORMATION:

Manufacturer Ford Model No. 360 HP —

Serial No. — Fuel Nat Gas Rated RPM —

PUMP INFORMATION:

Manufacturer Jacuzzi Model No. 12J5 Z4 Rated RPM —

Serial No. 6C7 22157 Type Vertical Turbine No. stages —

GEAR HEAD INFORMATION:

Manufacturer Randolph Model No. G60

Serial No. 63029 Drive Right Angle Ratio 5:4

WELL INFORMATION: Records not available from owner's representative.

Date Drilled prior to Jan 1974 Original Depth — ft. Static Water Level When Drilled — ft.

Tape Down Possible? yes Water Level Measurement Tube? no

Measuring Point — ft. above or below L.S.D.

ADDITIONAL REQUIREMENTS:

Meter Required? no Make of Meter —

Meter Model No. — Serial No. — Size —

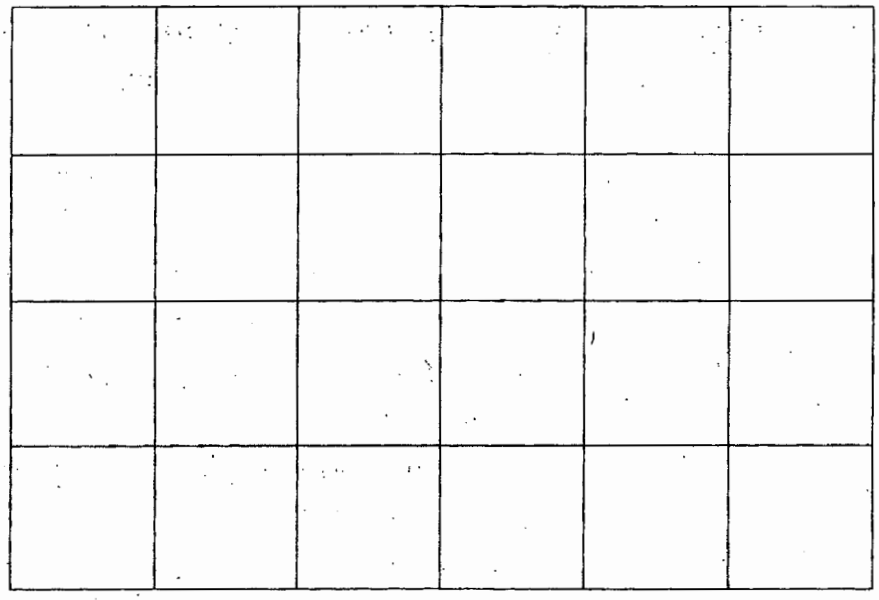
Is Meter Installed Properly? —

Chemical Injection System? yes Check Valve? yes Low Pressure Drain? yes

Vacuum Breaker? yes Are these anti-pollution devices installed properly? yes

If chemicals are injected into system, please attach sketch of system.

SKETCH OF ACTUAL PLACE OF USE, LOCATION OF DIVERSION WORKS, AND DISTRIBUTION SYSTEM.
(Indicate distribution system layout at time of field test).



TEST OF DIVERSION RATE:

Length of time well has been operating prior to test 0
Location of test In horizontal pipe between pump and pivot
Pipe Diameter (I.D.) 7¾ inches

Test No. 1—Normal Conditions		Test No. 2—Maximum Conditions	
R.P.M. POWER UNIT	2206	R.P.M. POWER UNIT	
R.P.M. PUMP UNIT	1765	R.P.M. PUMP UNIT	
Pressure at Pump	47 psi	Pressure at Pump	psi

☐ **Jacuzzi Meter Test** Meter Identification No._____

Area Constant K = 2.45 × I.D.² = _____ Q (gpm) = VK

	Velocity (fps)		Velocity (fps)	
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total				
Avg.				
G.P.M.				

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☐ **Propeller Meter Test** Manufacturer_____ Model_____ Serial No._____

Meter Diameter_____ inches.

Ending	gal.	Ending	gal.
Beginning	gal.	Beginning	gal.
Difference	gal.	Difference	gal.
Time	min.	Time	min.
Rate	gpm	Rate	gpm

☒ **Other Flow Meter** Use Supplemental Sheet (include meter identification, data and calculations).

HAYS000656

SCANNED

FUEL RECORDS:

☐ **Electricity** Supplier_____

Meter Manufacturer_____ Type_____ Serial No._____

K_____ watt/rev r_____ revolutions t_____ seconds

Rate = $\frac{Kr \times 3.6}{t}$ = _____ kw/hr Hours = $\frac{\text{kw-hr}}{\text{rate}}$ = _____

☒ **Other Fuels** Type Natural Gas Supplier Kansas-Nebraska

Rate = $\frac{\text{Volume (test)}}{\text{time}}$ = _____

How was the test volume determined? Not Determined Engine not on an individual meter.

TABULATION OF WATER USE:

Year	Hours Pumped (hr)	Tested Pumping Rate (gpm)	Water Used (AF)	Acres Irrigated
1975	1164	1000		125
1976				
1977	412	1000		130
1978				
1979	1224	600		124
	1416	600		124
Should be 2000 hours →	1152	600		124
Should be 1046 hrs →	2200 F	800 F		125 F
1984	1750 F	775 F		125 F
* 1985	1850 F	614 *		125 F
1986		614 *		
	* obtained from test on 9/30/86			
	F obtained from WUR sent to us from Jerry Weaver			

Indicate Year of Record with (*) Source of Information Stafford Files

Crops Irrigated: this year Soybeans Year of record Alfalfa

REMARKS: See attached sheet for logic on choosing a year of record.

Person present at test Kent Naber (name) Irrigation Manager (relationship)

Water Use Correspondent Lyle Kolbeck (name) Spearville, Ks 67876 (address) 316-385-2803 (phone number)

Conducted by Greg Ebert (signature) Date 10/11/86

Approved by [signature] (signature), P.E. (title) Date 1/15/87

FUEL RECORDS:

☐ **Electricity** Supplier_____

Meter Manufacturer_____ Type_____ Serial No._____

K_____watt/rev r_____revolutions t_____seconds

Rate = $\frac{Kr \times 3.6}{t}$ =_____kw/hr Hours = $\frac{\text{kw-hr}}{\text{rate}}$ =_____

☒ **Other Fuels** Type Natural Gas Supplier Kansas-Nebraska

Rate = $\frac{\text{Volume (test)}}{\text{time}}$ =_____

How was the test volume determined? Not Determined Engine not on an individual meter.

TABULATION OF WATER USE:

Year	Hours Pumped (hr)	Tested Pumping Rate (gpm)	Water Used (AF)	Acres Irrigated
1975	1164	1000		125
1976				
1977	412	1000		130
1978				
1979	1224	600		124
1980	1416	600		124
1981	1152	600		124
1982				
1983	2200 F	800 F		125 F
1984	1750 F	775 F		125 F
* 1985	1850 F	614 *		125 F
1986		614 *		

* obtained from test on 9/30/86

F obtained from WUR sent to us from Jerry Weaver

Indicate Year of Record with (*) Source of Information Stafford Files

Crops Irrigated: this year Soybeans Year of record Alfalfa

REMARKS: See attached sheet for logic on choosing a year of record.

Should be 2000 hours →

Should be 1046 hrs →

WATER RESOURCES RECEIVED
JUN 29 2015
KS DEPT OF AGRICULTURE

Person present at test Kent Naber (name) Irrigation Manager (relationship)

Water Use Correspondent Lyle Kolbeck (name) Spearville, Ks 67876 (address) 316-385-2603 (phone number)

Conducted by Greg Ebert (signature) Date 10/11/86

Approved by (signature), P.E. (title) Date 1/15/87

SCANNED
HAYS000658

APPLICATION NO: 21729 NAME: Connecticut General Life Insurance
NC NE¼

COLLINS METER TEST

Collins Meter No. 1-83 Meter Calibration Factor .9559

Pipe Inside Diameter (inches) 7¾ Flow Rate Factor 145.4

Test Pressure (psi) 47 Test RPM, Pump 1765

Description of Test Location In horizontal pipe between pump and pivot

TEST DATA: ☑ Check, Initial 4.48 Reversed 4.43

Meter Setting From Center of Pipe	Velocity Left Side of Pipe (or Front Side if Vertical Test)		Velocity Right Side of Pipe (or Back Side if Vertical Test)	
1 9/16	4.50	4.49	4.51	4.52
2 3/4	4.40	4.47	4.50	4.47
3 9/16	4.38	4.17	4.23	4.30

Average Velocity of Water = Sum of Vel. ÷ 12 = 4.412

Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 4.412 x .9559 = 4.22

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 4.22 x 145.4 = 614 GPM

DIVISION OF WATER RESOURCES RECEIVED JAN 21 1997 STATE BOARD OF AGRICULTURE

PUMPING PLANT TESTING, INC.

Reviewed By: [signature]

Professional Engineer

JUN 19 1997

WATER RESOURCES RECEIVED JUN 29 2015 KS DEPT OF AGRICULTURE

HAYS000659

SCANNED

APPLICATION NO: 21,729 NAME: CONNECTICUT GENERAL LIFE INSURANCE CO, INC.

NOTES ON CHOOSING A YEAR OF RECORD

THIS DEVELOPMENT HAS HAD SEVERAL OWNERS SINCE ITS INCEPTION IN 1975, WITH OWNERS FROM EUROPE & AROUND THE U.S. AT VARIOUS TIMES, A STATE OF CONFUSION HAS EXISTED IN THE CROP PRODUCTION REPORT. ALL OF THE WATER USE AND EQUIPMENT RECORDS HAVE BEEN EITHER DESTROYED OR LOST, AND THE SYSTEMS AND PUMPING PLANT COMPONENTS HAVE BEEN INTERCHANGED OVER THE YEARS.

SINCE LATE 1983, CONNECTICUT GENERAL HAS MADE A DILIGENT EFFORT TO KEEP GOOD RECORDS. THEREFORE, IT WOULD SEEM REASONABLE TO USE THE YEARS SINCE 1983 IN CHOOSING A YEAR OF RECORD.

PUMPING PLANT TESTING, INC.

Reviewed by: [signature] HAYS000660

Professional Engineer

Wrong date stamp, error should read 1/x/87

APPLICATION NO: 21729 NAME: Connecticut General Life Ins.

POINTS OF DIVERSIONSION AND SECTION CORNERS

The actual section corners of the land applied for and the land irrigated have never been clearly marked. (If it was marked at some time, we, nor the present owners and managers could find any marks or records) It appears the land described on the applications was based on visible marks, but we don't know for sure. It might have been surveyed and be more accurate than our method of identifying section corners. Our procedure of finding the section corners consisted of several steps. First, we used copies of the original survey plats to find the dimension of each section. Second, we laid out each section on the large small-scale photos in the ASCS office. For this, we used not only survey plat dimensions, but also by drawing lines across several miles from identifiable boundaries. However, sometimes these points made a section so "out-of-square" that we shifted the boundaries until they were reasonably tolerable. Because some of these marks were based on our judgement, we can not be sure they would be the same if the land was surveyed. These points were then transfered to the large-scale photos included.

The point of diversion location on the photo is correct. The photos were taken at a time when the diversion points were visible. The problem is in our ability to correctly describe the diversion points in relation to section corners.

PUMPING PLANT TESTING, INC.

Reviewed by: [signature]

Professional Engineer

SCANNED

HAYS000661

APPLICATION NO: 21,729 NAME: CONNECTICUT GENERAL LIFE INS. CO.

SUMMARY SHEET

APPLICATION OF WATER

	NW NC NE SW NW	NE	SE	SW NC NE SW SW	Total
Normal Operating Flow Rate (GPM)	599	614	718	699	2897
Hours of Operation on "Approved" Land	1850	1850	1850	1850	—
Ac-Ft Applied on "Approved" Land	204	209	244.6	238.1	895.7
Acres of "Approved" Land Irrigated	130	125	125	130	510
Ac-Ft per Acre Irrigated	1.57	1.67	1.96	1.83	1.76
Ac-Ft Applied at "Approved" Rate or Less					895.7 *

* SUBJECT TO LIMITATION OF 1.5 AC-FT / ACRE OF "APPROVED" LAND IRRIGATED (765 AC-FT)

Date stamp error should read 1/21/87

DIVISION OF WATER RESOURCES, STATE BOARD OF AGRICULTURE. RECEIVED JAN 21 1987

DIVISION OF WATER RESOURCES, STATE BOARD OF AGRICULTURE. RECEIVED JAN 1 9 1987

PUMPING PLANT TESTING, INC.

Reviewed by: Kirk J. Wilson

Professional Engineer

RECEIVED

JUN 19 1987

DIVISION OF

WATER RESOURCES RECEIVED

JUN 29 2015

KS DEPT OF AGRICULTURE

SCANNED

HAYS000662

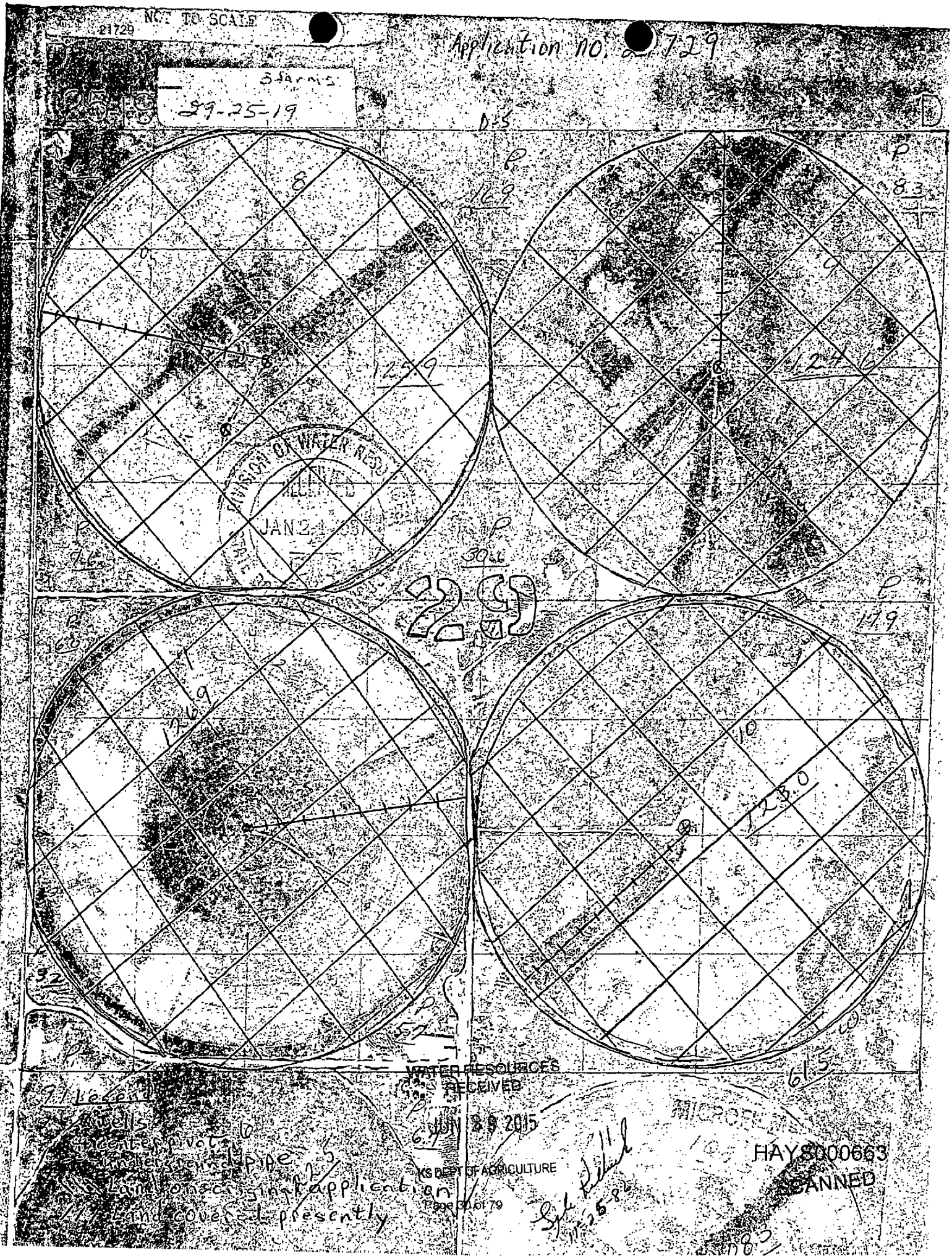

NOT TO SCALE
21729
Application no. 21729
Harris
29-25-19
D-5
RECEIVED
JAN 2 1 2015
KANSAS DEPARTMENT OF WATER RESOURCES
WATER RESOURCES
RECEIVED
JUN 29 2015
KS DEPT OF AGRICULTURE
Legend
wells
center pivot
water service pipe
Land contrasting application
Land covered presently
HAYS000663
SCANNED

EXHIBIT F 21729

DIVISION OF WATER RESOURCES—KANSAS STATE BOARD OF AGRICULTURE

FIELD INSPECTION REPORT

☐ Partial
☒ Full
☐ Re-Test

Test 3 of 6 Diversion points

Application No. 21729 Date 9/30/86 Firm/Field Office Pumping Plant Testing Inc Inspector Ebert/Klassen

Field Area No. 2 G.M.D. No. 5 County Edwards

Current Landowner Connecticut General Life Insurance % Agri. Affiliates

Address Box 1162 North Platte, NE 69103 Attn. Jerry Weaver
☐ Additional landowners and addresses identified in remarks section.

Water Use Classification: 1. Domestic ( ) 2. Industrial ( ) 3. Irrigation (X)
4. Municipal ( ) 5. Recreation ( ) 6. Stockwatering ( ) 7. Water Power ( )

Groundwater (X) Drainage Basin Arkansas River

Surface Water ( ) Stream

Authorized Point of Diversion: 1well NE¼, SW¼, NW¼ Sec. 29 T. 25 R. 19
Approximately ft. North and ft. West of SE corner of Sec.

Actual Point of Diversion: 1well NE¼, SW¼, NW¼ Sec. 29 T. 25 R. 19
Approximately 3607 ft. North and 4167 ft. West of SE corner of Sec. 29
How were distances determined? Scaled from ASCS photo

"Approved" Quantity 1000 AF "Approved" Diversion Rate 2900 g.p.m. (6.46 c.f.s.)

Priority Date Jan. 2, 1974 Approval of Application Date Feb. 27, 1976

Perfection Date Dec. 31, 1981

Other applications covering land and/or point of diversion None
(include discussion of overlapping files in remarks section)

LAND TO BE INCLUDED ON CERTIFICATE:

S	T	R	NE¼				NW¼				SW¼				SE¼				TOTAL ACRES
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
29	25	19	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	500

LAND IRRIGATED—YEAR OF RECORD 1985

S	T	R	NE¼				NW¼				SW¼				SE¼				TOTAL ACRES
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
29	25	19					32.5	32.5	32.5	32.5	(WELL	NE¼+SW¼	NW	10 ONLY)					130

APPLICATION OF WATER: RECEIVED
Year of Record 1985 Hours Pumped 1850 or Quantity 204 AF
Both wells pumping together (Combined) Normal Operating G.P.M. 599 JUN 19 1987 Equiv. c.f.s. 1.33
Individual Maximum Operating G.P.M. 313 FIELD OFFICE DIVISION OF WATER RESOURCES Equiv. c.f.s. .70

STATE BOARD OF AGRICULTURE DIVISION OF WATER RESOURCES RECEIVED JAN 31 1987

WATER RESOURCES RECEIVED
JUN 29 2015
KS DEPT OF AGRICULTURE

FOR DIV. W.R. USE ONLY

Year of Record 1985 Extension of time requested: Yes ____ No ✓

Total No. of Hours on land covered by this application 1,850

Ac. Ft. Applied = 1850 hrs. × 325 g.p.m. × 4.419 / (24 × 1000) = 110 AF

Acres of "Approved" Land irrigated 125

Ac. Ft. on "Approved" Land 110 (0.22 Ac. Ft./Ac.)

Ac. Ft. Used on "Approved" Land at "Approved" Rate or Less 110

Proration Calculations 263 gpm + 313 gpm = 576 gpm. 313 gpm ÷ 576 gpm = 0.54 × 599 gpm = 325 gpm. 0.54 X 188 A.F. Emax allowed for irrigating 125 acres) = 102 A.F.

Perfected Rate 325 g.p.m. Perfected Quantity 102 AF

Completed by Douglas E. Bush 3-17-87

HAYS000640

SCANNED

21729

GENERAL INFORMATION ON IRRIGATION SYSTEM:

☒ Center Pivot ☐ High Pressure ☒ Low Pressure

Manufacturer Olson Model 103 Serial No. 3808

Drive Electric Length of Pivot Arm _____

Design Pressure-Pivot _____ p.s.i. Operating Pressure-Pivot _____ p.s.i.

End Gun? yes End Gun Rating _____ g.p.m. Valducci

Is end gun operating during test? yes

☐ Gravity Irrigation (show test set on sketch)

Number of gates open _____ Normal Pipe Size _____

Pressure at pump _____ p.s.i.

☐ Other Type _____

Manufacturer _____ Model _____ Serial No. _____

Unusual Conditions/Other Info. _____

POWER UNIT INFORMATION:

Manufacturer Ford Model No. 300 HP _____

Serial No. 11827 K-29-TC Fuel Natural Gas Rated RPM _____

PUMP INFORMATION:

Manufacturer Western Land Roller Model No. 10cm Rated RPM —

Serial No. C78426 Type Vertical Turbine No. stages —

GEAR HEAD INFORMATION:

Manufacturer Amarillo Model No. 540 B

Serial No. 8662 Drive Right Angle Ratio 1:1

WELL INFORMATION: No records available from owner's representative.

Date Drilled prior to Jan 1974 Original Depth — ft. Static Water Level When Drilled — ft.

Tape Down Possible? yes 9' Water Level Measurement Tube? no

Measuring Point 1 ft. above ~~or below~~ L.S.D.

WATER RESOURCES RECEIVED

JUN 29 2015

KS DEPT OF AGRICULTURE

ADDITIONAL REQUIREMENTS:

Meter Required? no Make of Meter —

Meter Model No. — Serial No. — Size —

Is Meter Installed Properly? —

Chemical Injection System? yes Check Valve? yes Low Pressure Drain? no

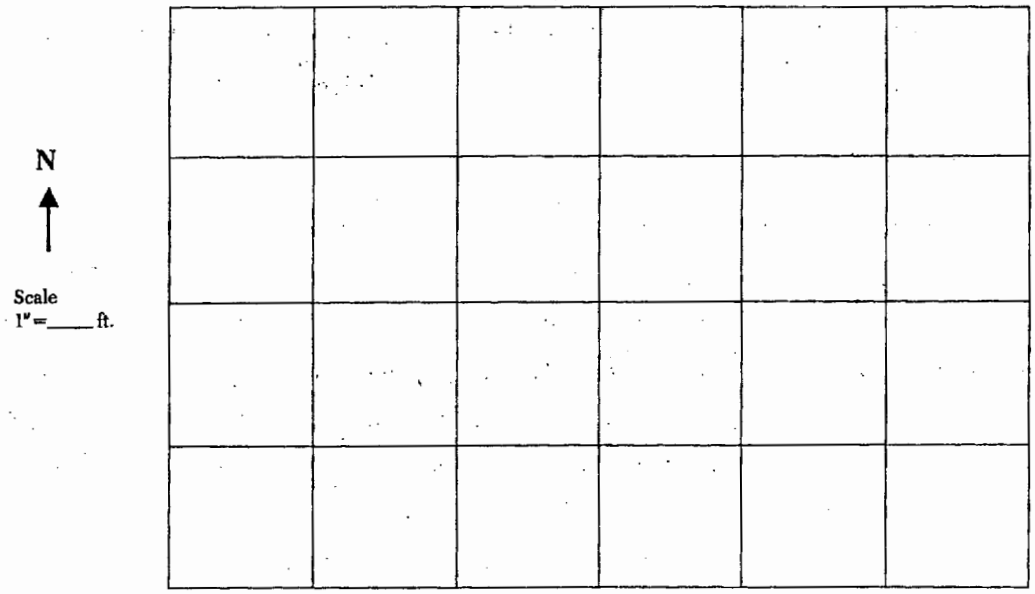
Vacuum Breaker? yes Are these anti-pollution devices installed properly? yes

If chemicals are injected into system, please attach sketch of system.

HAYS000641

SCANNED

SKETCH OF ACTUAL PLACE OF USE, LOCATION OF DIVERSION WORKS, AND DISTRIBUTION SYSTEM.
(Indicate distribution system layout at time of field test).



TEST OF DIVERSION RATE:

Length of time well has been operating prior to test 0
Location of test In vertical pipe inside pivot stand
Pipe Diameter (I.D.) 7 3/4 inches

Test No. 1—Normal Conditions		Test No. 2—Maximum Conditions	
R.P.M. POWER UNIT	1670	R.P.M. POWER UNIT	1700
R.P.M. PUMP UNIT	1670	R.P.M. PUMP UNIT	1700
Pressure at Pump	40 psi	Pressure at Pump	10 psi

☐ **Jacuzzi Meter Test** Meter Identification No._____

Area Constant K = 2.45 × I.D.^{2} = _____ Q (gpm) = VK

Velocity (fps)		Velocity (fps)	
1.		1.	
2.		2.	
3.		3.	
4.		4.	
5.		5.	
6.		6.	
7.		7.	
8.		8.	
9.		9.	
10.		10.	
Total		Total	
Avg.		Avg.	
G.P.M.		G.P.M.	

☐ **Propeller Meter Test** Manufacturer_____ Model_____ Serial No._____

Meter Diameter_____ inches

Ending	gal.	Ending	gal.
Beginning	gal.	Beginning	gal.
Difference	gal.	Difference	gal.
Time	min.	Time	min.
Rate	gpm	Rate	gpm

☒ **Other Flow Meter** Use Supplemental Sheet (include meter identification, data and calculations).

FUEL RECORDS:

☐ **Electricity** Supplier_____

Meter Manufacturer_____ Type_____ Serial No._____

K_____watt/rev r_____revolutions t_____seconds

Rate = $\frac{Kr \times 3.6}{t}$ =_____kw/hr Hours = $\frac{\text{kw-hr}}{\text{rate}}$ =_____

☒ **Other Fuels** Type Natural Gas Supplier Kansas-Nebraska

Rate = $\frac{\text{Volume (test)}}{\text{time}}$ =_____

How was the test volume determined? Not Determined Engine not on individual meter

TABULATION OF WATER USE:

Year	Hours Pumped (hr)	Tested Pumping Rate (gpm)	Water Used (AF)	Acres Irrigated
1975				
1976				
1977	889	1000		130
1978				
1979				
1980	2100	400		130
1981				
1982				
1983	2200 F	700 F		126 F
1984	1750 F	500 F		130 F
* 1985	1850 F	313 *		130 F
1986		313 *		
	* obtained from test on 9/30/86			
	F obtained from WIR sent to us from Jerry Weaver			

Indicate Year of Record with (*) Source of Information Stafford Files

Crops Irrigated: this year Alfalfa Year of record Alfalfa

REMARKS: See attached sheet for logic in choosing a year of record.

WATER RESOURCES RECEIVED

JUN 29 2015

KS DEPT OF AGRICULTURE

Person present at test Kent Naber (name) Irrigation Manager (relationship)

Water Use Correspondent Lyle Kolbeck (name) Spearville, Ks 67876 (address) 316-385-2803 (phone number)

Conducted by Greg Ebert (signature) Date 10/11/86

Approved by (signature), P.E. (title) Date 1/15/87

HAYS000643

SCANNED

21729

APPLICATION NO: 21729 NAME: Connecticut General Life Insurance

Bethwell 8
NC NW¼ & NE¼,SW¼,NW¼

COLLINS METER TEST

Collins Meter No. 1-83 Meter Calibration Factor .9559

Pipe Inside Diameter (inches) 7¾ Flow Rate Factor 145.4

Test Pressure (psi) 40 Test RPM, Pump 1650 (NC NW¼) 1670 (NE¼,SW¼,NW¼)

Description of Test Location In vertical pipe inside pivot stand

TEST DATA: Check, Initial 4.56 Reversed 4.54

Meter Setting From Center of Pipe	Velocity Left Side of Pipe (or Front Side if Vertical Test)		Velocity Right Side of Pipe (or Back Side if Vertical Test)	
1 9/16	4.31	4.21	4.62	4.66
2 3/4	3.99	4.01	4.79	4.75
3 9/16	3.65	3.73	4.34	4.63

Average Velocity of Water = Sum of Vel. ÷ 12 = 4.3075

Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 4.3075 x .9559 = 4.12

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 4.12 x 145.4 = 599 GPM

WATER RESOURCES RECEIVED
JUN 29 2015
KS DEPT OF AGRICULTURE

PUMPING PLANT TESTING,

Reviewed By: Professional Engineer

RECEIVED
JUN 19 1987
FIELD OFFICE
DIVISION OF WATER RESOURCES

HAYS000644

MICROFILMED

SCANNED

APPLICATION NO: 21729 NAME: Connecticut General Life Insurance
NE¼, SW¼, NW¼ pumping alone

COLLINS METER TEST

Collins Meter No. 1-83 Meter Calibration Factor .9559

Pipe Inside Diameter (inches) 7¾ Flow Rate Factor 145.4

Test Pressure (psi) 10 Test RPM, Pump 1700

Description of Test Location In vertical pipe inside pivot stand

TEST DATA: Check, Initial Checked Previously Reversed

Meter Setting From Center of Pipe	Velocity Left Side of Pipe (or Front Side if Vertical Test)		Velocity Right Side of Pipe (or Back Side if Vertical Test)	
1⅜	2.12	2.20	2.40	2.38
2¾	1.96	2.15	2.48	2.55
3⅜	1.85	1.90	2.38	2.65

Average Velocity of Water = Sum of Vel. ÷ 12 = 2.25

Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 2.25 x .9559 = 2.15

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 2.15 x 145.4 = 313 GPM

WATER RESOURCES RECEIVED
JUN 29 2015
KS DEPT OF AGRICULTURE

STATE BOARD OF AGRICULTURE, DIVISION OF WATER RESOURCES, RECEIVED JAN 21 1987

Reviewed By: [signature]
Professional Engineer

PUMPING PLANT TESTING, JUN 30

HAYS000645

APPLICATION NO: 21,729

NAME: CONNECTICUT GENERAL LIFE INSURANCE CO, INC.

NOTES ON CHOOSING A YEAR OF RECORD

THIS DEVELOPMENT HAS HAD SEVERAL OWNERS SINCE ITS INCEPTION IN 1975, WITH OWNERS FROM EUROPE & AROUND THE U.S. AT VARIOUS TIMES, A STATE OF CONFUSION HAS EXISTED IN THE CROP PRODUCTION REPORT. ALL OF THE WATER USE AND EQUIPMENT RECORDS HAVE BEEN EITHER DESTROYED OR LOST, AND THE SYSTEMS AND PUMPING PLANT COMPONENTS HAVE BEEN INTERCHANGED OVER THE YEARS.

SINCE LATE 1983, CONNECTICUT GENERAL HAS MADE A DILIGENT EFFORT TO KEEP GOOD RECORDS. THEREFORE, IT WOULD SEEM REASONABLE TO USE THE YEARS SINCE 1983 IN CHOOSING A YEAR OF RECORD.

PUMPING PLANT TESTING, INC.

Reviewed by: JUN 19 1987 Professional Engineer

EXHIBIT
21729
G

DIVISION OF WATER RESOURCES—KANSAS STATE BOARD OF AGRICULTURE

FIELD INSPECTION REPORT

☐ Partial
☒ Full
☐ Re-Test

Test 2 of 6 Diversion points

Firm/Field Office Pumping Plant Testing, Inc

Application No. 21729 Date 9/30/86 Inspector Ebert/Klassen

Field Area No. 2 G.M.D. No. 5 County Edwards

Current Landowner Connecticut General Life Insurance % Agri. Affiliates

Address Box 1162 North Platte, NE 69103 Attn. Jerry Weaver

☐ Additional landowners and addresses identified in remarks section.

Water Use Classification: 1. Domestic ( ) 2. Industrial ( ) 3. Irrigation ☒
4. Municipal ( ) 5. Recreation ( ) 6. Stockwatering ( ) 7. Water Power ( )

Groundwater ☒ Drainage Basin: Arkansas River

Surface Water ( ) Stream

Authorized Point of Diversion: 1 well NC NW¼ Sec. 29, T. 25, R. 19
Approximately ft. North and ft. West of SE corner of Sec.

Actual Point of Diversion: 1 well NC NW¼ Sec. 29, T. 25, R. 19
Approximately 3982 ft. North and 3603 ft. West of SE corner of Sec. 29
How were distances determined? Scaled from ASCS photo

"Approved" Quantity 1000 AF "Approved" Diversion Rate 2900 g.p.m. (6.46 c.f.s.)

Priority Date Jan. 2, 1974 Approval of Application Date Feb. 27, 1976

Perfection Date Dec. 31, 1981

Other applications covering land and/or point of diversion None
(include discussion of overlapping files in remarks section)

LAND TO BE INCLUDED ON CERTIFICATE:

S	T	R	NE¼				NW¼				SW¼				SE¼				TOTAL ACRES
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
29	25	19	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	500

LAND IRRIGATED—YEAR OF RECORD 1985

S	T	R	NE¼				NW¼				SW¼				SE¼				TOTAL ACRES
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
29	25	19					32.5	32.5	32.5	32.5	(well NC NW¼)								130

APPLICATION OF WATER:
Year of Record 1985 Hours Pumped 1850 or Quantity 204 AF
Both wells pumping together (combined) Normal Operating G.P.M. 599 Equiv. c.f.s. 1.33
Individual Maximum Operating G.P.M. 263 Equiv. c.f.s. .59

DIVISION OF WATER RESOURCES RECEIVED JAN 21 1997 STATE BOARD OF AGRICULTURE

FOR D.W.R. USE ONLY

Year of Record 1985 Extension of time requested: Yes ____ No ✓

Total No. of Hours on land covered by this application 1850

Ac. Ft. Applied = 1850 hrs. × 274 g.p.m. × 4.419 / (24 × 1000) = 94 AF

RECEIVED JUN 19 1987

Acres of "Approved" Land irrigated 125

Ac. Ft. on "Approved" Land 94 (0.19 AF/Ac.)

FIELD OFFICE DIVISION OF WATER RESOURCES STAFFORD

Ac. Ft. Used on "Approved" Land at "Approved" Rate or Less 94

Proration Calculations 263 gpm ÷ 313 gpm = 576 gpm 263 gpm ÷ 576 gpm = 0.46 × 599 gpm = 274 gpm
0.46 × 188 A.F. (max allowed for irrigating 125 acres) = 86 A.F.

Perfected Rate 275 g.p.m. Perfected Quantity 86 AF

Completed by Douglas E. Bash 3-12-87

DWR-101 (7-29) Page 38 of 79 Revised March 1986

WATER RESOURCES RECEIVED JUN 29 2015 KS DEPT OF AGRICULTURE

HAYS000647

SCANNED

GENERAL INFORMATION ON IRRIGATION SYSTEM:

☒ Center Pivot ☐ High Pressure ☒ Low Pressure

Manufacturer Olsen Model 103 Serial No. 3808

Drive Electric Length of Pivot Arm ____

Design Pressure-Pivot ____ p.s.i. Operating Pressure-Pivot ____ p.s.i.

End Gun? yes End Gun Rating ____ g.p.m. Valducci

Is end gun operating during test? yes

☐ Gravity Irrigation (show test set on sketch)

Number of gates open ____ Normal Pipe Size ____

Pressure at pump ____ p.s.i.

☐ Other Type ____

Manufacturer ____ Model ____ Serial No. ____

Unusual Conditions/Other Info.

POWER UNIT INFORMATION:

Manufacturer Ford Model No. 4.9L HP —

Serial No. 13811 T-4-TG Fuel Natural Gas Rated RPM —

PUMP INFORMATION:

Manufacturer Fairbanks Morse Model No. 10M, Fig. 7000 Rated RPM ____

Serial No. N2W24647X Type Vertical Turbine No. stages 5

GEAR HEAD INFORMATION:

Manufacturer Randolph Model No. F60

Serial No. 62055 Drive Right Angle Ratio 6:5

WELL INFORMATION:

Date Drilled prior to Jan 1974 Original Depth 75 ft. Static Water Level When Drilled 8 ft.

Tape Down Possible? yes 16' Water Level Measurement Tube? no

Measuring Point 1 ft. above ~~or below~~ L.S.D.

ADDITIONAL REQUIREMENTS:

Meter Required? no Make of Meter —

Meter Model No. — Serial No. — Size —

Is Meter Installed Properly? —

Chemical Injection System? yes Check Valve? yes Low Pressure Drain? no

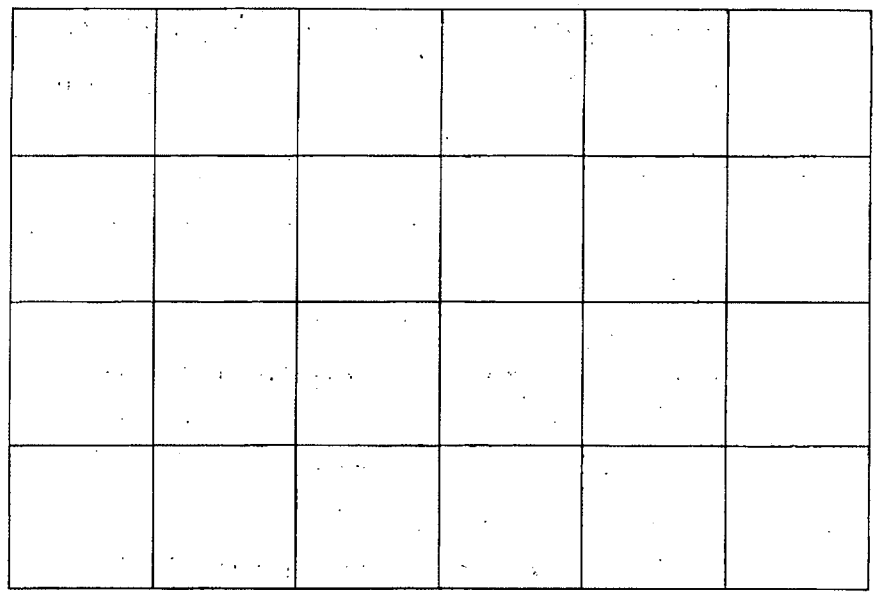
Vacuum Breaker? no Are these anti-pollution devices installed properly? yes

If chemicals are injected into system, please attach sketch of system.

SKETCH OF ACTUAL PLACE OF USE, LOCATION OF DIVERSION WORKS, AND DISTRIBUTION SYSTEM.
(Indicate distribution system layout at time of field test).

N

Scale
1"=____ ft.



TEST OF DIVERSION RATE:

Length of time well has been operating prior to test 0
Location of test In vertical pipe inside pivot stand
Pipe Diameter (I.D.) 7¾ inches

Test No. 1—Normal Conditions		Test No. 2—Maximum Conditions	
R.P.M. POWER UNIT	1980	R.P.M. POWER UNIT	2028
R.P.M. PUMP UNIT	1650	R.P.M. PUMP UNIT	1690
Pressure at Pump	40 psi	Pressure at Pump	9 psi

☐ **Jacuzzi Meter Test** Meter Identification No.____

Area Constant K = 2.45 × I.D.² = ____ Q (gpm) = VK

Velocity (fps)		Velocity (fps)	
1.		1.	
2.		2.	
3.		3.	
4.		4.	
5.		5.	
6.		6.	
7.		7.	
8.		8.	
9.		9.	
10.		10.	
Total		Total	
Avg.		Avg.	
G.P.M.		G.P.M.	

☐ **Propeller Meter Test** Manufacturer____ Model____ Serial No.____

Meter Diameter____ inches

Ending	gal.	Ending	gal.
Beginning	gal.	Beginning	gal.
Difference	gal.	Difference	gal.
Time	min.	Time	min.
Rate	gpm	Rate	gpm

☒ **Other Flow Meter** Use Supplemental Sheet (include meter identification, data and calculations) WYS000649

FUEL RECORDS:

☐ Electricity Supplier _____

Meter Manufacturer _____ Type _____ Serial No. _____

K _____ watt/rev r _____ revolutions t _____ seconds

Rate = $\frac{Kr \times 3.6}{t}$ = _____ kw/hr Hours = $\frac{\text{kw-hr}}{\text{rate}}$ = _____

☒ Other Fuels Type Natural Gas Supplier Kansas - Nebraska

Rate = $\frac{\text{Volume (test)}}{\text{time}}$ = _____

How was the test volume determined? Not Determind, One Meter is used for Many Wells

TABULATION OF WATER USE:

Year	Hours Pumped (hr)	Tested Pumping Rate (gpm)	Water Used (AF)	Acres Irrigated
1975	1584	1000		125
1976				
1977	889	1000		130
1978				
1979	1224	743		125
1980	1416	743		125
1981	1152	743		125
1982				
1983	2200 F	700 F		126 F
1984	1750 F	500 F		130 F
* 1985	1850 F	263 *		130 F
1986		263 *		
	* obtained from test on 9/30/86			
	F obtained from WUR sent to us from Jerry Weaver			

Indicate Year of Record with (*) Source of Information Stafford Files

Crops Irrigated: this year Alfalfa Year of record Alfalfa

REMARKS: See attached sheet for logic in choosing a year of record.

Person present at test Kent Naber (name) Irrigation Manager (relationship)

Water Use Correspondent Lyle Kolbeck (name) Spearville, Ks 67876 (address) 316-385-2803 (phone number)

Conducted by Greg Ebert (signature) Date 10/11/86

Approved by Neil J. Wurtz (signature), P.E. (title) Date 1/15/87

APPLICATION NO: 21729 NAME: Connecticut General Life Insurance

NC NW¼ pumping alone

COLLINS METER TEST

Collins Meter No. 1-83 Meter Calibration Factor .9559

Pipe Inside Diameter (inches) 7¾ Flow Rate Factor 145.4

Test Pressure (psi) 9 Test RPM, Pump 1690

Description of Test Location In vertical pipe inside pivot stand

TEST DATA: Check, Initial _____ Reversed _____

Meter Setting From Center of Pipe	Velocity Left Side of Pipe (or Front Side if Vertical Test)		Velocity Right Side of Pipe (or Back Side if Vertical Test)	
1¾	2.10	2.06	1.98	1.98
2¾	2.00	1.90	2.02	1.92
3¾	1.85	1.72	1.90	1.30

Average Velocity of Water = Sum of Vel. ÷ 12 = 1.89

Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 1.89 x .9559 = 1.81

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 1.81 x 145.4 = 263 GPM

STATE BOARD OF AGRICULTURE, DIVISION OF WATER RESOURCES, RECEIVED JAN 21 1987

Reviewed By: Professional Engineer

WATER RESOURCES RECEIVED
PUMPING PLANT TESTING, JUN 29 2015
KS DEPT OF AGRICULTURE

RECEIVED
JUN 19 1987
FIELD OFFICE
DIVISION OF WATER RESOURCES
STATE BOARD OF AGRICULTURE

HAYS000651

APPLICATION NO: 21729 NAME: Connecticut General Life Insurance

Bethwell 8
NC NW¼ & NE¼, SW¼, NW¼

COLLINS METER TEST

Collins Meter No. 1-83 Meter Calibration Factor .9559

Pipe Inside Diameter (inches) 7¾ Flow Rate Factor 145.4

Test Pressure (psi) 40 Test RPM, Pump 1650 (NC NW¼) 1670 (NE¼, SW¼, NW¼)

Description of Test Location In vertical pipe inside pivot stand

TEST DATA: ☐ Check, Initial 4.56 Reversed 4.54

Meter Setting From Center of Pipe	Velocity Left Side of Pipe (or Front Side if Vertical Test)		Velocity Right Side of Pipe (or Back Side if Vertical Test)	
1 9/16	4.31	4.21	4.62	4.66
2 3/4	3.99	4.01	4.79	4.75
3 9/16	3.65	3.73	4.34	4.63

Average Velocity of Water = Sum of Vel. ÷ 12 = 4.3075

Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 4.3075 x .9559 = 4.12

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 4.12 x 145.4 = 599 GPM

DIVISION OF WATER RESOURCES, STATE BOARD OF AGRICULTURE, RECEIVED JAN 21 1987

Reviewed By: [signature]

PUMPING PLANT TESTING, INC.

Professional Engineer

WATER RESOURCES RECEIVED JUN 29 2015 KS DEPT OF AGRICULTURE

HAYS000652

MICROFILMED

SCANNED

APPLICATION NO: 21,729 NAME: CONNECTICUT GENERAL LIFE INSURANCE CO, INC.

NOTES ON CHOOSING A YEAR OF RECORD

THIS DEVELOPMENT HAS HAD SEVERAL OWNERS SINCE ITS INCEPTION IN 1975, WITH OWNERS FROM EUROPE & AROUND THE U.S. AT VARIOUS TIMES, A STATE OF CONFUSION HAS EXISTED IN THE CROP PRODUCTION REPORT. ALL OF THE WATER USE AND EQUIPMENT RECORDS HAVE BEEN EITHER DESTROYED OR LOST, AND THE SYSTEMS AND PUMPING PLANT COMPONENTS HAVE BEEN INTERCHANGED OVER THE YEARS.

SINCE LATE 1983, CONNECTICUT GENERAL HAS MADE A DILIGENT EFFORT TO KEEP GOOD RECORDS. THEREFORE, IT WOULD SEEM REASONABLE TO USE THE YEARS SINCE 1983 IN CHOOSING A YEAR OF RECORD.

PUMPING PLANT TESTING, INC.

Reviewed by: Professional Engineer

EXHIBIT 21729 H

DIVISION OF [redacted]ER RESOURCES—KANSAS STATE BOARD OF [redacted]CULTURE

FIELD INSPECTION REPORT

☐ Partial
☒ Full
☐ Re-Test

Test 6 of 6 Diversion points

Firm/Field Office Pumping Plant Testing Inc

Application No. 21729 Date 11/5/86 Inspector Ebert/Klassen

Field Area No. 2 G.M.D. No. 5 County Edwards

Current Landowner Connecticut General Life Ins. c/o Agri. Affiliates

Address Box 1162 North Platte, NE 69103 Attn. Jerry Weaver

☐ Additional landowners and addresses identified in remarks section.

Water Use Classification: 1. Domestic ( ) 2. Industrial ( ) 3. Irrigation ⋈
4. Municipal ( ) 5. Recreation ( ) 6. Stockwatering ( ) 7. Water Power ( )

Groundwater ⋈ Drainage Basin Arkansas River

Surface Water ( ) Stream

Authorized Point of Diversion: 1well NE¼, SW¼, SW¼ Sec. 29, T. 25, R. 19
Approximately ft. North and ft. West of SE corner of Sec.

Actual Point of Diversion: 1well NE¼, SW¼, SW¼ Sec. 29, T. 25, R. 19
Approximately 1043 ft. North and 4370 ft. West of SE corner of Sec. 29
How were distances determined? Scaled from ASCS photo

"Approved" Quantity 1000 AF "Approved" Diversion Rate 2900 g.p.m. (6.46 c.f.s.)

Priority Date Jan. 2, 1974 Approval of Application Date Feb. 27, 1976

Perfection Date Dec. 31, 1981

Other applications covering land and/or point of diversion None
(include discussion of overlapping files in remarks section)

LAND TO BE INCLUDED ON CERTIFICATE:

S	T	R	NE¼				NW¼				SW¼				SE¼				TOTAL ACRES
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
29	25	19	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	500

LAND IRRIGATED—YEAR OF RECORD 1985

S	T	R	NE¼				NW¼				SW¼				SE¼				TOTAL ACRES
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
29	25	19			(NE	SW	SW	well	only)		33	33	32	32					130

APPLICATION OF WATER:
Year of Record 1985 Hours Pumped 1850 or Quantity 144.8 AF
Normal Operating G.P.M. flow from individual well with both pumps 425 Equiv. c.f.s. .947
Maximum Operating G.P.M. well pumping alone 631 Equiv. c.f.s. 1.406

DIVISION OF WATER RESOURCES STATE BOARD OF AGRICULTURE RECEIVED JAN 21 1987

FOR D.W.R. USE ONLY

Year of Record 1985 Extension of time requested: Yes ____ No ✓

RECEIVED

Total No. of Hours on land covered by this application 1,850

Ac. Ft. Applied = 1850 hrs. × 425 g.p.m. × 4.419 / (24 × 1000) = 145 AF JUN 19 1987

WATER RESOURCES RECEIVED JUN 29 2015 KS DEPT OF AGRICULTURE

Acres of "Approved" Land irrigated 125

DIVISION OF WATER RESOURCES STATE BOARD OF AGRICULTURE MICROFILMED

Ac. Ft. on "Approved" Land 145 (0.29 Ac. Ft./Ac.)

Ac. Ft. Used on "Approved" Land at "Approved" Rate or Less 145

Proration Calculations 425 gpm + 274 gpm = 699 gpm 425 gpm ÷ 699 gpm = 0.61
0.61 X 189 A.F. (max allowed for irrigating 125 acres)
= 114 A.F.

Perfected Rate 635 g.p.m. Perfected Quantity 114 AF

HAYS000618

DWR-101 21729 Completed by Douglas E. Bush 3-18-97 Revised March 1986

SCANNED

GENERAL INFORMATION ON IRRIGATION SYSTEM:

☒ Center Pivot ☐ High Pressure ☒ Low Pressure

Manufacturer Olson Model no tag* Serial No. —

Drive Electric Length of Pivot Arm —

Design Pressure-Pivot _____ p.s.i. Operating Pressure-Pivot _____ p.s.i.

End Gun? yes End Gun Rating _____ g.p.m. 1 RainBird 85

Is end gun operating during test? yes

☐ Gravity Irrigation (show test set on sketch)

Number of gates open _____ Normal Pipe Size _____

Pressure at pump _____ p.s.i.

☐ Other Type _____

Manufacturer _____ Model _____ Serial No. _____

Unusual Conditions/Other Info. — THERE IS A TAG ON CENTER PIVOT, BUT NO NUMBERS ARE STAMPED ON IT.

POWER UNIT INFORMATION:

Manufacturer Ford Model No. 300 HP _____

Serial No. 08998 E-23-TL Fuel Natural Gas Rated RPM _____

PUMP INFORMATION:

Manufacturer Johnston Model No. _____ Rated RPM _____

Serial No. CF21230 Type Vertical Turbine No. stages _____

GEAR HEAD INFORMATION:

Manufacturer Amarillo Model No. 560

Serial No. 115267 Drive Right Angle Ratio 4:3

WELL INFORMATION: Records not available from Owner's Representative.

Date Drilled prior to Jan 1974 Original Depth — ft. Static Water Level When Drilled — ft.

Tape Down Possible? yes 19' Water Level Measurement Tube? no

Measuring Point 1 ft. above ~~or below~~ L.S.D.

ADDITIONAL REQUIREMENTS:

Meter Required? no Make of Meter —

Meter Model No. — Serial No. — Size —

Is Meter Installed Properly? —

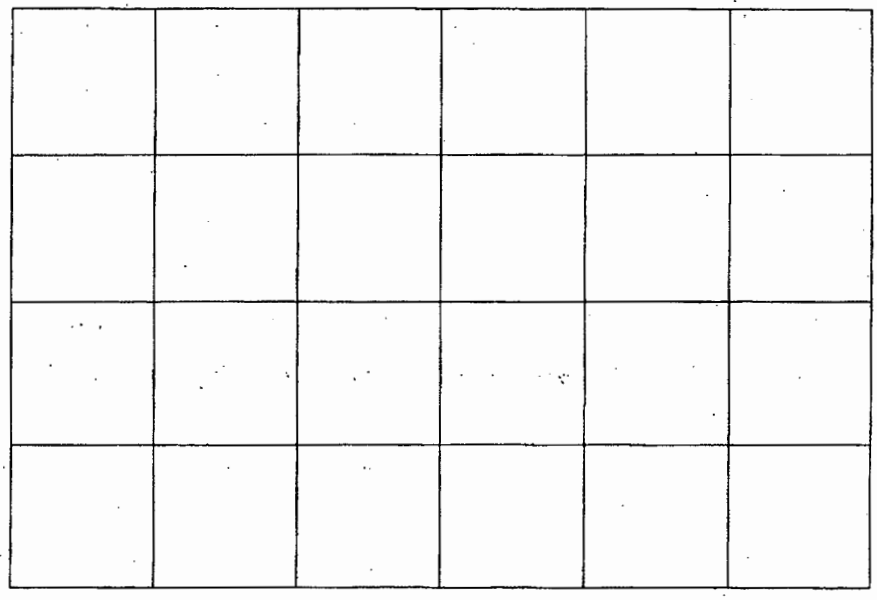
Chemical Injection System? no Check Valve? yes Low Pressure [illegible]

Vacuum Breaker? yes Are these anti-pollution devices installed properly? yes

If chemicals are injected into system, please attach sketch of system.

21729

SKETCH OF ACTUAL PLACE OF USE, LOCATION OF DIVERSION WORKS, AND DISTRIBUTION SYSTEM.
(Indicate distribution system layout at time of field test).



TEST OF DIVERSION RATE:

Length of time well has been operating prior to test 0
Location of test Horizontal pipe at pivot
Pipe Diameter (I.D.) 7 13/16 inches

Test No. 1—Normal Conditions – See attached sheet.	Test No. 2—~~Maximum Conditions~~ FLOW FROM WELL NE 1/4 SW 1/4 SW 1/4 ALONE
R.P.M. POWER UNIT 2213	R.P.M. POWER UNIT 2200
R.P.M. PUMP UNIT 1660	R.P.M. PUMP UNIT 1650
Pressure at Pump 110 psi	Pressure at Pump 10 psi

☐ **Jacuzzi Meter Test** Meter Identification No._____

Area Constant K = 2.45 × I.D.² = _____ Q (gpm) = VK

Velocity (fps)		Velocity (fps)	
1.		1.	
2.		2.	
3.		3.	
4.		4.	
5.		5.	
6.		6.	
7.		7.	
8.		8.	
9.		9.	
10.		10.	
Total		Total	
Avg.		Avg.	
G.P.M.		G.P.M.	

☐ **Propeller Meter Test** Manufacturer_____ Model_____ Serial No._____

Meter Diameter_____ inches

Ending	gal.	Ending	gal.
Beginning	gal.	Beginning	gal.
Difference	gal.	Difference	gal.
Time	min.	Time	min.
Rate	gpm	Rate	gpm

☒ **Other Flow Meter** Use Supplemental Sheet (include meter identification, data and calculations).

FUEL RECORDS:

☐ Electricity Supplier_____

Meter Manufacturer_____ Type_____ Serial No._____

K_____ watt/rev r_____ revolutions t_____ seconds

Rate = $\frac{Kr \times 3.6}{t}$ = _____ kw/hr Hours = $\frac{\text{kw-hr}}{\text{rate}}$ = _____

☒ Other Fuels Type Natural Gas Supplier Kansas - Nebraska

Rate = $\frac{\text{Volume (test)}}{\text{time}}$ = _____

How was the test volume determined? Not Determined Engine not on individual meter

TABULATION OF WATER USE:

Year	Hours Pumped (hr)	Tested Pumping Rate (gpm)	Water Used (AF)	Acres Irrigated
1975				
1976				
1977	936	1000		130
1978				
1979				
1980				
1981				
1982				
1983	2200#	700#		127#
1984	1750#	400#		130#
* 1985	1850#	425*		130#
1986		425*		

From WUR sent to us from Jerry Weaver of Agri. Affiliates

* from test on 11/5/86

Indicate Year of Record with (*) Source of Information Stafford Files

Crops Irrigated: this year Alfalfa Year of record Alfalfa

REMARKS: SEE ATTACHED SHEETS FOR LOGIC IN CHOOSING A YEAR OF RECORD.

WATER RESOURCES RECEIVED

JUN 29 2015

KS DEPT OF AGRICULTURE

Person present at test Kent Naber (name) Irrigation Manager (relationship)

Water Use Correspondent Lyle Kolbeck (name) Spearville, Ks 67876 (address) 316-385-2803 (phone number)

Conducted by Greg Ebert (signature) Date 11/13/86

Approved by (signature) P.E. (title) Date 1/15/87

HAYS000621

SCANNED

APPLICATION NO: 21729 NAME: Connecticut General Life Insurance

Flow from well in the NE¼, SW¼, SW¼ pumping alone

COLLINS METER TEST

Collins Meter No. 1-85 Meter Calibration Factor .9826

Pipe Inside Diameter (inches) 7 13/16 Flow Rate Factor 147.8

Test Pressure (psi) 10 Test RPM, Pump 1650

Description of Test Location Horizontal pipe before pivot stand

TEST DATA: Check, Initial _____ Reversed _____

Meter Setting From Center of Pipe	Velocity Left Side of Pipe (or Front Side if Vertical Test)		Velocity Right Side of Pipe (or Back Side if Vertical Test)	
1 5/8	4.52	4.35	4.28	4.25
2 3/4	4.93	4.54	4.20	3.68
3 9/16	4.40	4.45	4.15	4.40

Average Velocity of Water = Sum of Vel. ÷ 12 = 4.35

Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 4.35 x .9826 = 4.27

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 4.27 x 147.8 = 631 GPM

WATER RESOURCES RECEIVED

JUN 29 2015

KS DEPT OF AGRICULTURE

PUMPING PLANT TESTING, INC.

Reviewed By: [signature] REVIEWED

Professional Engineer

JUN 19 1987

HAYS000622 MICROFILMED

DIVISION OF WATER RESOURCES STAFFORD

SCANNED

APPLICATION NO: 21729 NAME: Connecticut General Life Ins.

COLLINS METER TEST Flow from well in NE¼, SW¼, SW¼ under normal conditions

Collins Meter No. 1-85 Meter Calibration Factor .9826

Pipe Inside Diameter (inches) 7 13/16 Flow Rate Factor 147.8

Test Pressure (psi) 110 Test RPM, Pump 1660

Description of Test Location Horizontal pipe before pivot stand

TEST DATA: ☑ Check, Initial 2.92 Reversed 2.96

Meter Setting From Center of Pipe	Velocity Left Side of Pipe (or Front Side if Vertical Test)		Velocity Right Side of Pipe (or Back Side if Vertical Test)	
1 5/8	2.99	2.95	2.95	2.91
2 3/4	2.90	2.90	2.92	2.92
3 9/16	2.96	2.93	2.82	2.93

Average Velocity of Water = Sum of Vel. ÷ 12 = 2.923

Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 2.923 x .9826 = 2.872

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 2.872 x 147.8 = 425 GPM

DIVISION OF WATER RESOURCES, STATE BOARD OF AGRICULTURE, RECEIVED JAN 21 1987

Reviewed By: PUMPING PLANT TESTING, INC.

Professional Engineer

JUN 19 1987

WATER RESOURCES RECEIVED JUN 29 2015 KS DEPT OF AGRICULTURE

MICROFILMED HAYSD000623

FIELD OFFICE DIVISION OF WATER RES. STAFFORD

APPLICATION NO: 21,729 NAME: CONNECTICUT GENERAL LIFE INSURANCE CO, INC.

NOTES ON CHOOSING A YEAR OF RECORD

THIS DEVELOPMENT HAS HAD SEVERAL OWNERS SINCE ITS INCEPTION IN 1975, WITH OWNERS FROM EUROPE & AROUND THE U.S. AT VARIOUS TIMES, A STATE OF CONFUSION EXISTED IN THE CROP PRODUCTION REPORT. ALL OF THE WATER USE AND EQUIPMENT RECORDS HAVE BEEN EITHER DESTROYED OR LOST, AND THE SYSTEMS AND PUMPING PLANT COMPONENTS HAVE BEEN INTERCHANGED OVER THE YEARS.

SINCE LATE 1983, CONNECTICUT GENERAL HAS MADE A DILIGENT EFFORT TO KEEP GOOD RECORDS. THEREFORE, IT WOULD SEEM REASONABLE TO USE THE YEARS SINCE 1983 IN CHOOSING A YEAR OF RECORD.

PUMPING PLANT TESTING, INC.

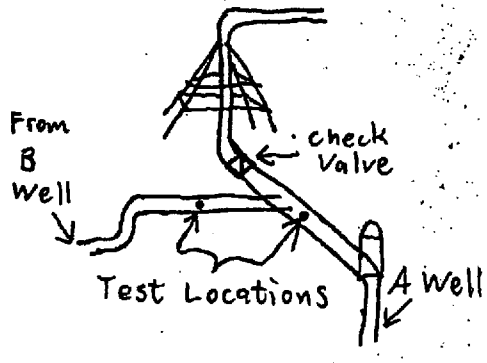
Reviewed by: [signature] Professional Engineer

HAYS000624

APPLICATION NO: 21729 NAME: Connecticut General Life Ins

Flow test on wells pumping independently:

Since there was only one checkvalve for both wells (located downstream of the pipe junction), each of these wells were tested upstream of the pipe junction. (See diagram) The pressure is low on the individual test because the water is going down the well on the pump that isn't running.



Flow test under "normal" conditions:

"Normal" conditions are when both wells are pumping together into the center pivot. We tested the flow from each individualy while both were pumping. The total flow into the system would be the combined flow of each well pumping under "normal" conditions. (274 gpm + 425 gpm = 699 gpm)

PUMPING PLANT TESTING, INC.

Reviewed by: Neil J. W

Professional Engineer

EXHIBIT
21729
I

DIVISION OF WATER RESOURCES—KANSAS STATE BOARD OF AGRICULTURE

FIELD INSPECTION REPORT

☐ Partial
☒ Full
☐ Re-Test

Test 5 of 6 Diversion points

Application No. 21729 Date 11/5/86 Firm/Field Office Pumping Plant Testing, Inc Inspector Klassen/Ebert

Field Area No. 2 G.M.D. No. 5 County Edwards

Current Landowner Connecticut General Life Ins. % Agri. Affiliates

Address Box 1162 North Platte, NE 69103 Attn. Jerry Weaver
☐ Additional landowners and addresses identified in remarks section.

Water Use Classification: 1. Domestic ( ) 2. Industrial ( ) 3. Irrigation ☒
4. Municipal ( ) 5. Recreation ( ) 6. Stockwatering ( ) 7. Water Power ( )

Groundwater ☒ Drainage Basin Arkansas River

Surface Water ( ) Stream

Authorized Point of Diversion: 1 well NC SW¼ Sec. 29, T. 25, R. 19
Approximately ft. North and ft. West of SE corner of Sec.

Actual Point of Diversion: 1 well NC SW¼ Sec. 29, T. 25, R. 19
Approximately 1416 ft. North and 4000 ft. West of SE corner of Sec. 29
How were distances determined? Scaled from ASCS photo

"Approved" Quantity 1000 AF "Approved" Diversion Rate 2900 g.p.m. (6.46 c.f.s.)

Priority Date Jan. 2, 1974 Approval of Application Date Feb. 27, 1976

Perfection Date Dec. 31, 1981

Other applications covering land and/or point of diversion None
(include discussion of overlapping files in remarks section)

LAND TO BE INCLUDED ON CERTIFICATE:

S	T	R	NE¼				NW¼				SW¼				SE¼				TOTAL ACRES
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
29	25	19	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	500

LAND IRRIGATED—YEAR OF RECORD 1985

S	T	R	NE¼				NW¼				SW¼				SE¼				TOTAL ACRES
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
29	25	19				(W½ NE SW¼ ONLY)					33	33	32	32					130

APPLICATION OF WATER:
Year of Record 1985 Hours Pumped 1850 or Quantity 93.3 AF
flow from individual well with both pumping
Normal Operating G.P.M. 274 Equiv. c.f.s. .611
well pumping alone
Maximum Operating G.P.M. 358 Equiv. c.f.s. .798

FOR D.W.R. USE ONLY

Year of Record 1985 Extension of time requested: Yes ~~No~~ RECEIVED

Total No. of Hours on land covered by this application 1,850

Ac. Ft. Applied = 1,850 hrs. × 274 g.p.m. × 4.419 / 24 × 1000 = 174 AF

JUN 19 1987
FIELD OFFICE
DIVISION OF WATER RESOURCES
STAFFORD

Acres of "Approved" Land irrigated 125

Ac. Ft. on "Approved" Land 94 (.019 Ac. Ft./Ac.)

Ac. Ft. Used on "Approved" Land at "Approved" Rate or Less 94

Proration Calculations 274 gpm ÷ 425 gpm = .699 gpm. 274 gpm ÷ 699 gpm = 0.39
0.39 × 188 A.F. = 74 A.F.

Perfected Rate 360 g.p.m. Perfected Quantity 74 AF

Completed by Douglas E. Bush 3-17-87

DWR-101 21729 Page 53 of 79 Revised March 1986

DIVISION OF WATER RESOURCES RECEIVED JAN 21 1987 STATE BOARD OF AGRICULTURE

WATER RESOURCES RECEIVED
JUN 29 2015
KS DEPT OF AGRICULTURE
HAYS000626

SCANNED

GENERAL INFORMATION ON IRRIGATION SYSTEM:

☒ Center Pivot ☐ High Pressure ☒ Low Pressure

Manufacturer Olson Model no tag Serial No. ____

Drive Electric Length of Pivot Arm ____

Design Pressure-Pivot ____ p.s.i. Operating Pressure-Pivot ____ p.s.i.

End Gun? yes End Gun Rating ____ g.p.m. 1 Rain Bird 85

Is end gun operating during test? yes

☐ Gravity Irrigation (show test set on sketch)

Number of gates open ____ Normal Pipe Size ____

Pressure at pump ____ p.s.i.

☐ Other Type ____

Manufacturer ____ Model ____ Serial No. ____

Unusual Conditions/Other Info. ____

POWER UNIT INFORMATION:

Manufacturer Ford Model No. 300 HP —

Serial No. 11909 K-28-TG Fuel Natural Gas Rated RPM —

PUMP INFORMATION:

Manufacturer Western Land Roller Model No. no tag Rated RPM —

Serial No. — Type Vertical Turbine No. stages —

GEAR HEAD INFORMATION:

Manufacturer Amarillo Model No. —

Serial No. OL 36605 Drive Right Angle Ratio 1:1

WELL INFORMATION: No records available from owner's representative.

Date Drilled prior to Jan. 1974 Original Depth — ft. Static Water Level When Drilled — ft.

Tape Down Possible? yes 25' Water Level Measurement Tube? No

Measuring Point .5 ft. above ~~or below~~ L.S.D.

ADDITIONAL REQUIREMENTS:

Meter Required? no Make of Meter —

Meter Model No. — Serial No. — Size —

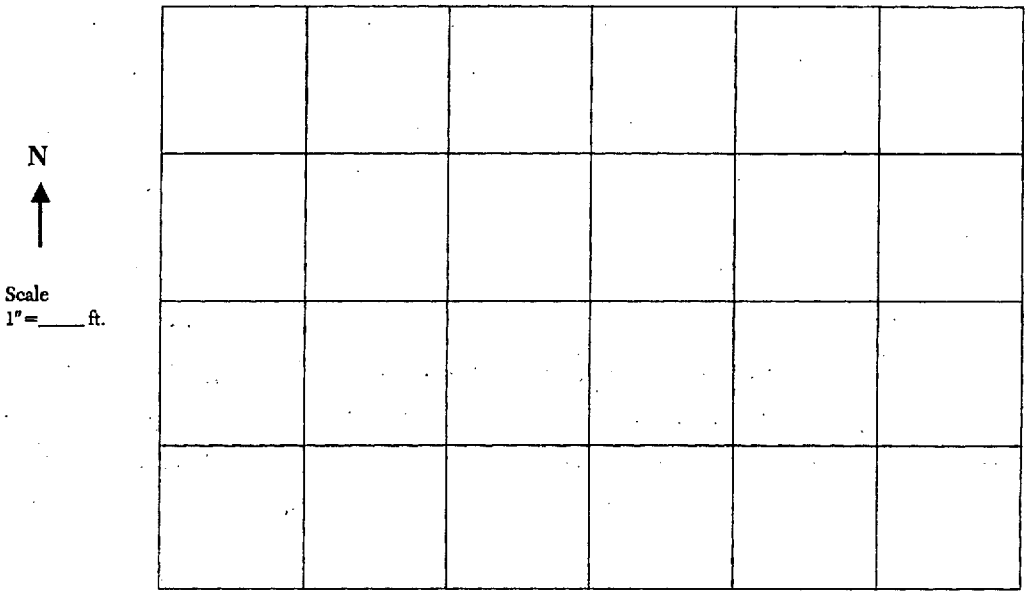
Is Meter Installed Properly? —

Chemical Injection System? no Check Valve? yes Low Pressure Drain? yes

Vacuum Breaker? yes Are these anti-pollution devices installed properly? yes

21729

SKETCH OF ACTUAL PLACE OF USE, LOCATION OF DIVERSION WORKS, AND DISTRIBUTION SYSTEM.
(Indicate distribution system layout at time of field test).



TEST OF DIVERSION RATE:

Length of time well has been operating prior to test 0
Location of test Horizontal pipe at pivot
Pipe Diameter (I.D.) 7 3/16 inches

See attached sheet - FLOW FROM WELL NC SW1/4 ALONE

Test No. 1—"Normal" Conditions		Test No. 2—~~Maximum Conditions~~	
R.P.M. POWER UNIT	1760	R.P.M. POWER UNIT	1771
R.P.M. PUMP UNIT	1760	R.P.M. PUMP UNIT	1771
Pressure at Pump	110 psi	Pressure at Pump	6 psi

☐ **Jacuzzi Meter Test** Meter Identification No._____

Area Constant K = 2.45 × I.D.² = _____ Q (gpm) = VK

	Velocity (fps)		Velocity (fps)	
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total				
Avg.				
G.P.M.				

☐ **Propeller Meter Test** Manufacturer_____ Model_____ Serial No._____

Meter Diameter_____ inches

Ending	gal.	Ending	gal.
Beginning	gal.	Beginning	gal.
Difference	gal.	Difference	gal.
Time	min.	Time	min.
Rate	gpm	Rate	gpm

☒ **Other Flow Meter** Use Supplemental Sheet (include meter identification, data and calculations)

FUEL RECORDS:

☐ Electricity Supplier_____

Meter Manufacturer_____ Type_____ Serial No._____

K_____watt/rev r_____revolutions t_____seconds

Rate = $\frac{Kr \times 3.6}{t}$ =_____kw/hr Hours = $\frac{\text{kw-hr}}{\text{rate}}$ = _____

☒ Other Fuels Type Natural Gas Supplier Kansas-Nebraska

Rate = $\frac{\text{Volume (test)}}{\text{time}}$ =_____

How was the test volume determined? Not Determined Engine not on individual meter

TABULATION OF WATER USE:

Year	Hours Pumped (hr)	Tested Pumping Rate (gpm)	Water Used (AF)	Acres Irrigated
1975	1764	1000		125
1976				
1977	936	1000		130
1978				
1979	1224	650		126
1980	1416	650		126
1981	1152	650		126
1982				
1983	2200#	700#		127#
1984	1750#	450#		130#
* 1985	1850#	274*		130#
1986		274*		

From WUA sent to us from Jerry Weaver of Agri. Affiliates

* From test on 11/5/86

Indicate Year of Record with (*) Source of Information Stafford Files

Crops Irrigated: this year Alfalfa Year of record Alfalfa

REMARKS: See attached sheet for logic in choosing a year of record.

Person present at test Kent Nabes (name) Irrigation Managers (relationship)

Water Use Correspondent Lyle Kolbeck (name) Spearville, Ks 67876 (address) 316-385-2803 (phone number)

Conducted by Greg Ebert Date 11/11/86

Approved by (signature), P.E. (title) Date 1/15/87

APPLICATION NO: 21729 NAME: Connecticut General Life Ins.

COLLINS METER TEST Flow from well NCSW¼ pumping alone

Collins Meter No. 1-84 Meter Calibration Factor .9635

Pipe Inside Diameter (inches) 7 13/16 Flow Rate Factor 147.8

Test Pressure (psi) 6 Test RPM, Pump 1771

Description of Test Location Horizontal pipe before pivot stand

TEST DATA: ☑ Check, Initial 2.72 Reversed 2.75

Meter Setting From Center of Pipe	Velocity Left Side of Pipe (or Front Side if Vertical Test)		Velocity Right Side of Pipe (or Back Side if Vertical Test)	
1 5/8	2.66	2.67	2.75	2.70
2 3/4	2.48	2.48	2.56	2.60
3 9/16	2.26	2.30	2.38	2.29

Average Velocity of Water = Sum of Vel. ÷ 12 = 2.51

Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 2.51 x .9635 = 2.419

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 2.419 x 147.8 = 358 GPM

DIVISION OF WATER RESOURCES RECEIVED JAN 2 1 20[illegible] BRANCH OF AGRICULTURAL USE

WATER RESOURCES RECEIVED JUN 29 2015 KS DEPT OF AGRICULTURE

PUMPING PLANT TESTING, INC.

Reviewed By: [signature]

Professional Engineer

JUN 19 1987

HAYS000630

FIELD OFFICE DIVISION OF WATER RESOURCES STAFFORD

MICROFILMED SCANNED

APPLICATION NO: 21729 NAME: Connecticut General Life Ins.

COLLINS METER TEST Flow from well NC SW¼ under normal conditions

Collins Meter No. 1-84 Meter Calibration Factor .9635

Pipe Inside Diameter (inches) 7 13/16 Flow Rate Factor 147.8

Test Pressure (psi) 110 Test RPM, Pump 1760

Description of Test Location Horizontal pipe before pivot stand

TEST DATA: ☑ Check, Initial 2.05 Reversed 2.06

Meter Setting From Center of Pipe	Velocity Left Side of Pipe (or Front Side if Vertical Test)		Velocity Right Side of Pipe (or Back Side if Vertical Test)	
1 5/8	1.99	2.00	2.04	2.01
2 3/4	1.87	1.92	2.00	1.99
3 9/16	1.81	1.76	1.95	1.78

Average Velocity of Water = Sum of Vel. ÷ 12 = 1.93

Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 1.93 x .9635 = 1.856

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 1.856 x 147.8 = 274 GPM

DIVISION OF WATER RESOURCES RECEIVED JAN 21 1997 STATE BOARD OF AGRICULTURE

WATER RESOURCES RECEIVED JUN 29 2015 KS DEPT OF AGRICULTURE

PUMPING PLANT TESTING, INC.

Reviewed By: [signature]

Professional Engineer

RECEIVED JUN 19 1997

HAYS000631

DIVISION OF WATER RESOURCES

APPLICATION NO: 21,729 NAME: CONNECTICUT GENERAL LIFE INSURANCE CO, INC.

NOTES ON CHOOSING A YEAR OF RECORD

THIS DEVELOPMENT HAS HAD SEVERAL OWNERS SINCE ITS INCEPTION IN 1975, WITH OWNERS FROM EUROPE & AROUND THE U.S. AT VARIOUS TIMES, A STATE OF CONFUSION HAS EXISTED IN THE CROP PRODUCTION REPORT. ALL OF THE WATER USE AND EQUIPMENT RECORDS HAVE BEEN EITHER DESTROYED OR LOST, AND THE SYSTEMS AND PUMPING PLANT COMPONENTS HAVE BEEN INTERCHANGED OVER THE YEARS.

SINCE LATE 1983, CONNECTICUT GENERAL HAS MADE A DILIGENT EFFORT TO KEEP GOOD RECORDS. THEREFORE, IT WOULD SEEM REASONABLE TO USE THE YEARS SINCE 1983 IN CHOOSING A YEAR OF RECORD.

PUMPING PLANT TESTING, INC.

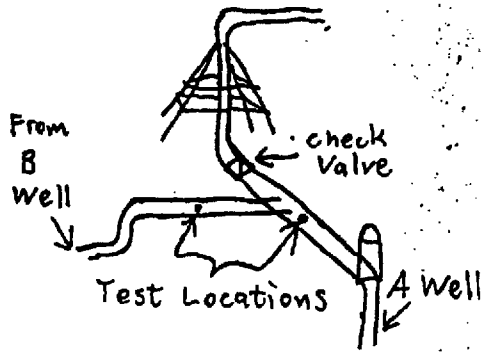
Reviewed by: [signature] HAYS000632

Professional Engineer

APPLICATION NO: 21729 NAME: Connecticut General Life Ins

Flow test on wells pumping independently:

Since there was only one checkvalve for both wells (located downstream of the pipe junction), each of these wells were tested upstream of the pipe junction. (See diagram) The pressure is low on the individual test because the water is going down the well on the pump that isn't running.



Flow test under "normal" conditions:

"Normal" conditions are when both wells are pumping together into the center pivot. We tested the flow from each individualy while both were pumping. The total flow into the system would be the combined flow of each well pumping under "normal" conditions. (274 gpm + 425 gpm = 699 gpm)

PUMPING PLANT TESTING, INC.

Reviewed by: Richard J. Wilson

Professional Engineer

HAYS000633

EXHIBIT
21729
J

DIVISION OF WATER RESOURCES—KANSAS STATE BOARD OF AGRICULTURE

FIELD INSPECTION REPORT

☐ Partial
☒ Full
☐ Re-Test

Test 4 of 6 Diversion points

Application No. 21729 Date 9/30/86 Firm/Field Office Pumping Plant Testing, Inc. Inspector Ebert/Klassen

Field Area No. 2 G.M.D. No. 5 County Edwards

Current Landowner Connecticut General Life Insurance % Agri. Affiliates

Address Box 1162 North Platte NE 69103 Attn Jerry Weaver
☐ Additional landowners and addresses identified in remarks section.

Water Use Classification: 1. Domestic ( ) 2. Industrial ( ) 3. Irrigation (X)
4. Municipal ( ) 5. Recreation ( ) 6. Stockwatering ( ) 7. Water Power ( )

Groundwater (X) Drainage Basin Arkansas River

Surface Water ( ) Stream

Authorized Point of Diversion: Iwell NC SE¼ Sec. 29, T. 25, R. 19
Approximately ft. North and ft. West of SE corner of Sec.

Actual Point of Diversion: Iwell NC SE¼ Sec. 29, T. 25, R. 19
Approximately 1377 ft. North and 1415 ft. West of SE corner of Sec. 29
How were distances determined? Scaled from ASCS photo

"Approved" Quantity 1000 AF "Approved" Diversion Rate 2900 g.p.m. (6.46 c.f.s.)

Priority Date Jan 2, 1974 Approval of Application Date Feb. 27, 1976

Perfection Date Dec. 31, 1981

Other applications covering land and/or point of diversion None
(include discussion of overlapping files in remarks section)

LAND TO BE INCLUDED ON CERTIFICATE:

S	T	R	NE¼				NW¼				SW¼				SE¼				TOTAL ACRES
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
29	25	19	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	31¼	500

LAND IRRIGATED—YEAR OF RECORD 1985

S	T	R	NE¼				NW¼				SW¼				SE¼				TOTAL ACRES
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
29	25	19							(WELL NC SE¼ ONLY)						31	34	34	31	125

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FIELD OFFICE
DIVISION OF WATER RESOURCES
STAFFORD

APPLICATION OF WATER:
Year of Record 1985 Hours Pumped 1850 or Quantity 244.6 AF
Normal Operating G.P.M. 718 Equiv. c.f.s. 1.60
Maximum Operating G.P.M. Equiv. c.f.s.

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FOR D.W.R. USE ONLY

Year of Record 1985 Extension of time requested: Yes ___ No ✓

Total No. of Hours on land covered by this application 1850

Ac. Ft. Applied = 1850 hrs. × 718 g.p.m. × 4.419 / (24 × 1000) = 245 AF

Acres of "Approved" Land irrigated 125

Ac. Ft. on "Approved" Land 245 (0.49 Ac. Ft./Ac.)

Ac. Ft. Used on "Approved" Land at "Approved" Rate or Less 245

Proration Calculations 125 acres irrigated × 1.5 A.F. per acre = 188AF

Perfected Rate 220 g.p.m. Perfected Quantity 188 AF

DWR-101 21729 completed by Douglas E. Bush 3-19-87 Revised March 1986

MICROFILMED

HAYS000634

SCANNED

GENERAL INFORMATION ON IRRIGATION SYSTEM:

☒ Center Pivot ☐ High Pressure ☒ Low Pressure

Manufacturer Olsan Model 103 PL Serial No. 3999

Drive Electric Length of Pivot Arm ____

Design Pressure-Pivot ____ p.s.i. Operating Pressure-Pivot ____ p.s.i.

End Gun? yes End Gun Rating ____ g.p.m. Toro

Is end gun operating during test? yes

☐ Gravity Irrigation (show test set on sketch)

Number of gates open ____ Normal Pipe Size ____

Pressure at pump ____ p.s.i.

☐ Other Type ____

Manufacturer ____ Model ____ Serial No. ____

Unusual Conditions/Other Info. ____

POWER UNIT INFORMATION:

Manufacturer Ford Model No. 460 HP ____

Serial No. 11669 K-26-TG Fuel Natural Gas Rated RPM ____

PUMP INFORMATION:

Manufacturer Johnston Model No. — Rated RPM —

Serial No. CF21229 Type Vertical Turbine No. stages —

GEAR HEAD INFORMATION:

Manufacturer Amarillo Model No. S80

Serial No. 87993 Drive Right Angle Ratio 5:4

WELL INFORMATION:

Date Drilled prior to Jan 1974 Original Depth 33 ft. Static Water Level When Drilled 4 ft.

Tape Down Possible? No Water Level Measurement Tube? no

Measuring Point — ft. above or below L.S.D.

ADDITIONAL REQUIREMENTS:

Meter Required? no Make of Meter —

Meter Model No. — Serial No. — Size —

Is Meter Installed Properly? —

Chemical Injection System? yes Check Valve? no Low Pressure Drain? no

Vacuum Breaker? no Are these anti-pollution devices installed properly? —

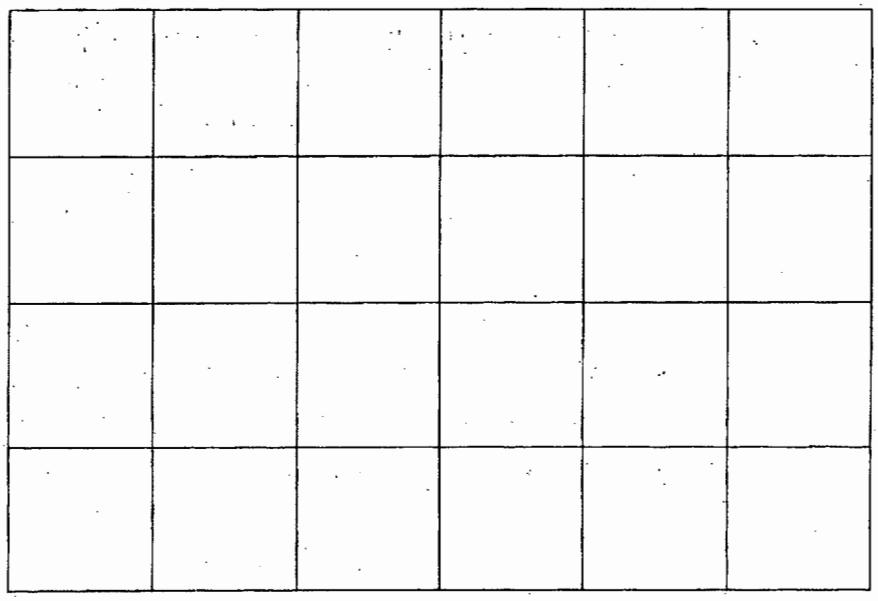
If chemicals are injected into system, please attach sketch of system.

21729

SKETCH OF ACTUAL PLACE OF USE, LOCATION OF DIVERSION WORKS, AND DISTRIBUTION SYSTEM.
(Indicate distribution system layout at time of field test).

N

Scale
1"=____ ft.



TEST OF DIVERSION RATE:

Length of time well has been operating prior to test 0
Location of test In horizontal pipe between pump and pivot
Pipe Diameter (I.D.) 7 3/4 inches

Test No. 1—Normal Conditions		Test No. 2—Maximum Conditions	
R.P.M. POWER UNIT	2210	R.P.M. POWER UNIT	
R.P.M. PUMP UNIT	1768	R.P.M. PUMP UNIT	
Pressure at Pump	53 psi	Pressure at Pump	psi

☐ **Jacuzzi Meter Test** Meter Identification No._____

Area Constant K = 2.45 × I.D.² = _____ Q (gpm) = VK

	Velocity (fps)		Velocity (fps)	
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total				
Avg.				
G.P.M.				

☐ **Propeller Meter Test** Manufacturer_____ Model_____ Serial No._____

Meter Diameter_____ inches

Ending	gal.	Ending	gal.
Beginning	gal.	Beginning	gal.
Difference	gal.	Difference	gal.
Time	min.	Time	min.
Rate	gpm	Rate	gpm

☒ **Other Flow Meter** Use Supplemental Sheet (include meter identification, data and calculations).

FUEL RECORDS:

☐ Electricity Supplier _____

Meter Manufacturer _____ Type _____ Serial No. _____

K _____ watt/rev r _____ revolutions t _____ seconds

Rate = $\frac{Kr \times 3.6}{t}$ = _____ kw/hr Hours = $\frac{\text{kw-hr}}{\text{rate}}$ = _____

☒ Other Fuels Type Natural Gas Supplier Kansas-Nebraska

Rate = $\frac{\text{Volume (test)}}{\text{time}}$ = _____

How was the test volume determined? Not Determined Engine not on individual meter

TABULATION OF WATER USE:

Year	Hours Pumped (hr)	Tested Pumping Rate (gpm)	Water Used (AF)	Acres Irrigated
1975	1260	1000		125
1976				
1977	701	1000		130
1978				
1979	1224	780		123
1980	1416	780		123
1981	1152	780		123
1982				
1983	2200 F	800 F		123 F
1984	1700 F	850 F		125 F
* 1985	1850 F	718 *		125 F
1986		718 *		
	* obtained from test on 9/30/86			
	F obtained from WAR sent to us from Jerry Weaver			

Indicate Year of Record with (*) Source of Information Stafford Files

Crops Irrigated: this year Alfalfa Year of record Alfalfa

REMARKS: See attached sheet for logic in choosing a year of record.

Person present at test Kent Naber (name) Irrigation Manager (relationship)

Water Use Correspondent Lyle Kelbeck (name) Spearville, Ks 67876 (address) 316-385-2803 (phone number)

Conducted by Greg Ebert (signature) Date 10/11/86

Approved by Ted J. Watts, P.E. (signature) (title) Date 1/15/87

APPLICATION NO: 21729 NAME: Connecticut General Life Insurance

NW SE¼

COLLINS METER TEST

Collins Meter No. 1-83 Meter Calibration Factor .9559

Pipe Inside Diameter (inches) 7¾ Flow Rate Factor 145.4

Test Pressure (psi) 53 Test RPM, Pump 1768

Description of Test Location In horizontal pipe between pump and pivot

TEST DATA: ☑ Check, Initial 5.70 Reversed 5.68

Meter Setting From Center of Pipe	Velocity Left Side of Pipe (or Front Side if Vertical Test)		Velocity Right Side of Pipe (or Back Side if Vertical Test)	
1 9/16	5.44	5.52	5.67	5.56
2¾	5.37	5.30	5.42	5.50
3 9/16	4.55	4.59	4.60	4.47

Average Velocity of Water = Sum of Vel. ÷ 12 = 5.17

Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 5.17 x .9559 = 4.94

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 4.94 x 145.4 = 718 GPM

DIVISION OF WATER RESOURCES RECEIVED JAN STATE BOARD OF AGRICULTURE

PUMPING PLANT TESTING, INC.

Reviewed By: [signature]

Professional Engineer

JUN 19 1987

WATER RESOURCES RECEIVED JUN 29 2015 KS DEPT OF AGRICULTURE

HAYS000638

SCANNED

APPLICATION NO: 21,729 NAME: CONNECTICUT GENERAL LIFE INSURANCE CO, INC.

NOTES ON CHOOSING A YEAR OF RECORD

THIS DEVELOPMENT HAS HAD SEVERAL OWNERS SINCE ITS INCEPTION IN 1975, WITH OWNERS FROM EUROPE & AROUND THE U.S. AT VARIOUS TIMES, A STATE OF CONFUSION HAS EXISTED IN THE CROP PRODUCTION REPORT. ALL OF THE WATER USE AND EQUIPMENT RECORDS HAVE BEEN EITHER DESTROYED OR LOST, AND THE SYSTEMS AND PUMPING PLANT COMPONENTS HAVE BEEN INTERCHANGED OVER THE YEARS.

SINCE LATE 1983, CONNECTICUT GENERAL HAS MADE A DILIGENT EFFORT TO KEEP GOOD RECORDS. THEREFORE, IT WOULD SEEM REASONABLE TO USE THE YEARS SINCE 1983 IN CHOOSING A YEAR OF RECORD.

PUMPING PLANT TESTING, INC.

Reviewed by: [signature] HAYS000639

Professional Engineer

EXHIBIT
K 21729

KANSAS STATE BOARD OF AGRICULTURE
Division of Water Resources

M E M O R A N D U M

To: Files

Date: March 17, 1987

From: Douglas E. Bush

Re: Appropriation of Water
File No. 21,729

The Field Inspection Report for the above referenced file, conducted under contract by Pumping Plant Testing, Inc. has been reviewed. It meets the requirement specified in the scope of work.

The quantity perfected under the above referenced File No. was fully perfected in accordance to the acres irrigated. That is 500 acres irrigated x 1.5 acre-feet per acre = 750 acre-feet or 752 acre-feet because of the rounding of quantity.

The combined tested rates for the two wells located in the Northwest Quarter (NW¼) of Section 29, Township 25 South, Range 19 West, Edwards County, Kansas, did not equal the rate when the wells were tested pumping by themselves and then added together. Pumping Plant Testing was contacted on March 17, 1987. It was learned that because of air being in the system, the rates were lower when tested by themselves. Therefore the rates for the two wells were prorated up to the combined rate as such: 263 gallons per minute + 313 gallons per minute = 576 gallons per minute. 263 gallons per minute divided by 576 gallons per minute = 0.46 x 599 (combined rate) = 273 gallons per minute [near the center of the Northwest Quarter (NW¼)]. 313 gallons per minute divided by 576 gallons per minute = 0.54 x 599 gallons per minute (combined rate) = 325 gallons per minute [in the Northeast Quarter of the Southwest Quarter of the Northwest Quarter (NE¼ SW¼ NW¼)].

The quantities for the wells located near the center of the Northwest Quarter (NW¼) and in the Northeast Quarter of the Southwest Quarter of the Northwest Quarter (NE¼ SW¼ NW¼) were prorated by rate so the total quantity did not exceed a reasonable quantity for the land irrigated. The quantities were prorated as such: 263 gallons per minute + 313 gallons per minute = 576 gallons per minute. 263 gallons per minute divided by 576 gallons per minute = 0.46 x 188 acre-feet (maximum allowed for irrigating 125 acres at 1.5 acre-feet per acre) = 86 acre-feet [near the center of the Northwest Quarter (NW¼)], 313 gallons per minute divided by 576 gallons per minute = 0.54 x 188 acre-feet (maximum allowed for irrigating 125 acres at 1.5 acre-feet per acre) = 102 acre-feet [Northeast Quarter of the Southwest Quarter of the Northwest Quarter (NE¼ SW¼ NW¼)].

The quantities for the wells located near the center of the Southwest Quarter (SW¼) and in the Northeast Quarter of the Southwest Quarter of the Southwest Quarter (NE¼ SW¼ SW¼) were prorated by rate so the total quantity did not exceed a reasonable quantity for the land irrigated. The quantities were prorated as such: 274 gallons per minute + 425 gallons per minute = 699 gallons per minute. 274 gallons per minute divided by 699 gallons per minute = 0.39 x 188 acre-feet (maximum allowed for irrigating 125 acres at 1.5 acre-feet per

gallons per minute divided by 699 gallons per minute = 0.61 x 188 acre-feet (maximum allowed for irrigating 125 acres at 1.5 acre-feet per acre) = 114 acre-feet.

The acres shown to be irrigated by some pivots were over the 125 approved acres. The actual acres irrigated under all pivot irrigation systems is probably close to 125 acres as shown by the ASCS aerial photograph. Therefore, no prorating of quantity was done for irrigating unapproved land.

The WUC shown on the Field Inspection Report was changed to show Agri Affiliates as correspondent. This information was obtained in a March 25, 1987 phone call from Larry Sheets, Division of Water Resources, to Jerry Weaver of Agri Affiliates.

A limitation was needed on the combined rate, for the well located in the Southwest Quarter (SW¼) of said section and the well located in the Northeast Quarter of the Southwest Quarter of the Southwest Quarter (NE¼ SW¼ SW¼) of said section. This limitation limits the combined rate of these two wells to 700 gallons per minute when the wells are run simultaneously.

A limitation was needed on the total rate when all wells are being run simultaneously. The limitation limits the rate to 2,900 gallons per minute, the maximum appproved rate.

Douglas E. Bush

Douglas E. Bush
Hydrologist

DEB:jt

EXHIBIT
21729
L

Kansas State Board of Agriculture
Division of Water Resources

ADMINISTRATIVE POLICY
No. 86-8

Subject: Allowable Rates of Diversion and Maximum Annual Quantities for Irrigation Use - Permits and Approvals

Reference: K.S.A. 82a-708a and K.A.R. 5-3-1

Date: November 5, 1986

History: Effective November 5, 1986

Approved by: David L. Pope
Chief Engineer

During the review of an APPLICATION FOR PERMIT TO APPROPRIATE WATER FOR BENEFICIAL USE for irrigation purposes the following guidelines shall be considered in determining the maximum reasonable rate of diversion to be allowed under any APPROVAL OF APPLICATION AND PERMIT TO PROCEED:

Area, Place of use	Max. Allowable Rate	
up to 10 acres	450 g.p.m.	450
10 - 40 acres	(+) 450 g.p.m.	900
40 - 120 acres	(+) 8 g.p.m./acre	580 + 8X
more than 120 acres	(+) 7 g.p.m./acre	700 + 7X

EXAMPLES:

A. 37 acres requested; since this area is less than 40 acres, a rate of up to 900

B. 83 acres requested;

	10 acres	= 450 g.p.m.	900 g.p.m.
(+)	40 acres (10 + 30)	= 450 g.p.m.	
(+)	43 acres @ 8 g.p.m./acre	= 344 g.p.m.	+
		1,244 (allow 1,245 g.p.m.)	

A further limiting factor of this procedure is the availability of water from the proposed source of supply. In those instances whereby the source of supply is incapable of yielding a reasonably, sustainable (computed) rate, then the source becomes a further limiting factor.

A further limiting factor is well design and equipment, which shall be reasonable to divert the requested rate.

Further, the rate authorized should not impair senior water rights in the area, including domestic rights.

In reviewing an APPLICATION FOR PERMIT TO APPROPRIATE WATER FOR BENEFICIAL USE for irrigation purposes, the following guidelines shall be considered when determining a maximum allowable annual quantity of water request:

In that area of Kansas located between the Kansas/Missouri border and the Range 5 East/Range 6 East line, the maximum allowable quantity shall not exceed an average of 1.00 acre-foot per acre to be irrigated.

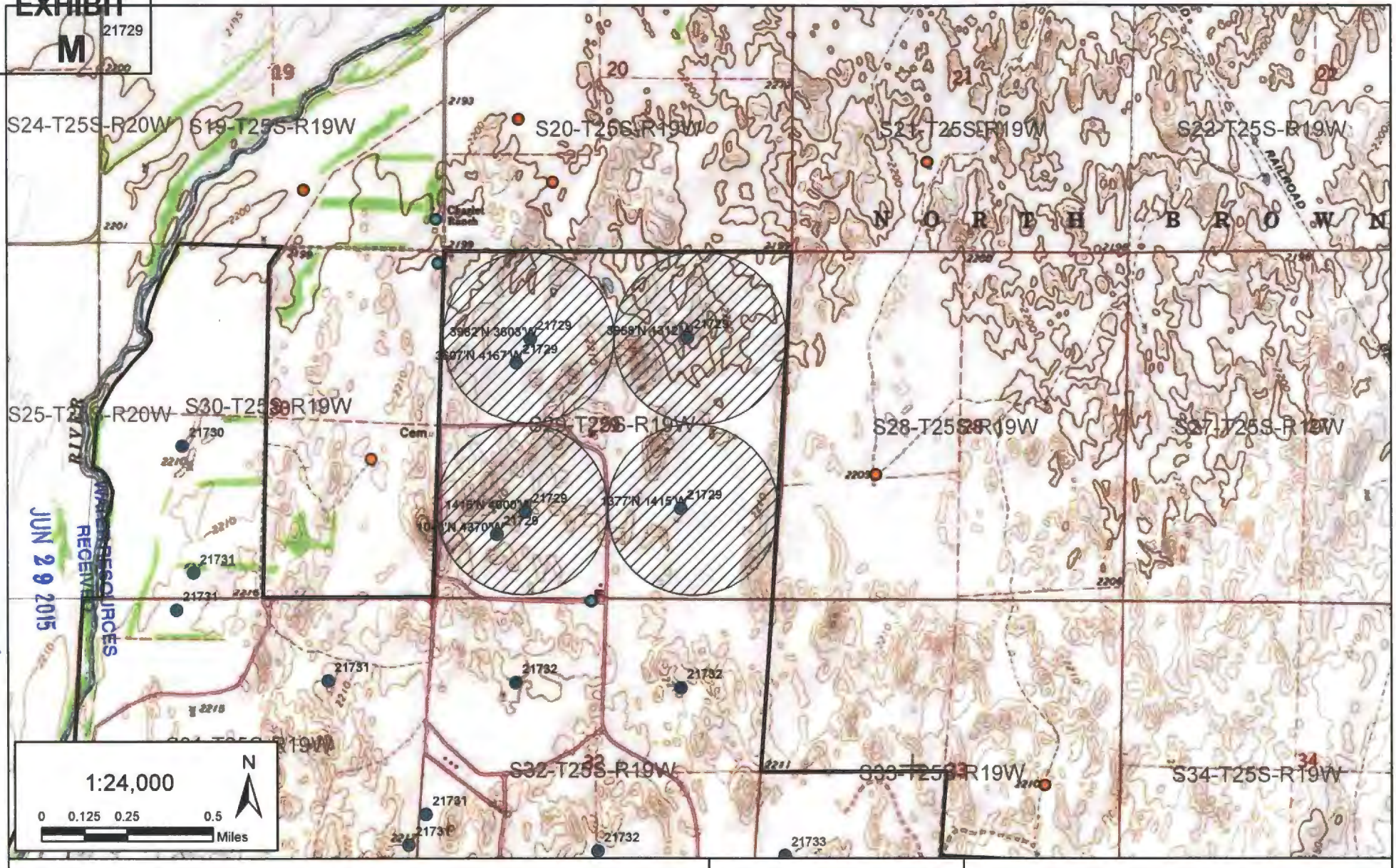
In that area of Kansas located between the Range 5 East/Range 6 East Line and the Range 20 West/Range 21 West line, the maximum allowable quantity shall not exceed an average of 1.50 acre-feet per acre irrigated.

In that area of Kansas located between the Range 20 West/Range 21 West line and the Kansas/Colorado border, the maximum allowable quantity shall not exceed an average of 2.00 acre-feet per acre irrigated.

A further limiting factor to maximum allowable quantity is the availability of water from the proposed source of supply. If the source of supply is incapable of yielding a reasonably, sustainable (computed) quantity during the irrigation season in that area of the state, then the source becomes a further limiting factor.

That if an applicant can show that his or her system design is reasonable for the use intended and approval of the proposed rate and/or maximum annual quantity will not impair any senior water right or prejudicially and unreasonably affect the public interest, the Chief Engineer may waive the above guidelines. Documentation shall be placed in the file clearly demonstrating any exceptions to the above policy.

EXHIBIT M
21729



Legend

- 21729 Existing Point(s) of Diversion
- 21729 Existing Place of Use
- R9 Ranch Property Boundary
- PLSS Sections
- 21729
- Irrigation Wells (File No.)
- Stockwater Wells (File No.)
- Domestic Well (Non-Permitted)
- Stock Well (Non-Permitted)
- Existing R9 Ranch Irrigation Wells

BURNS McDONNELL

CHANGE APPLICATION 21729
APPLICATION MAP
AUTHORIZED PLACE OF USE &
POINTS OF DIVERSION

EXHIBIT
21729
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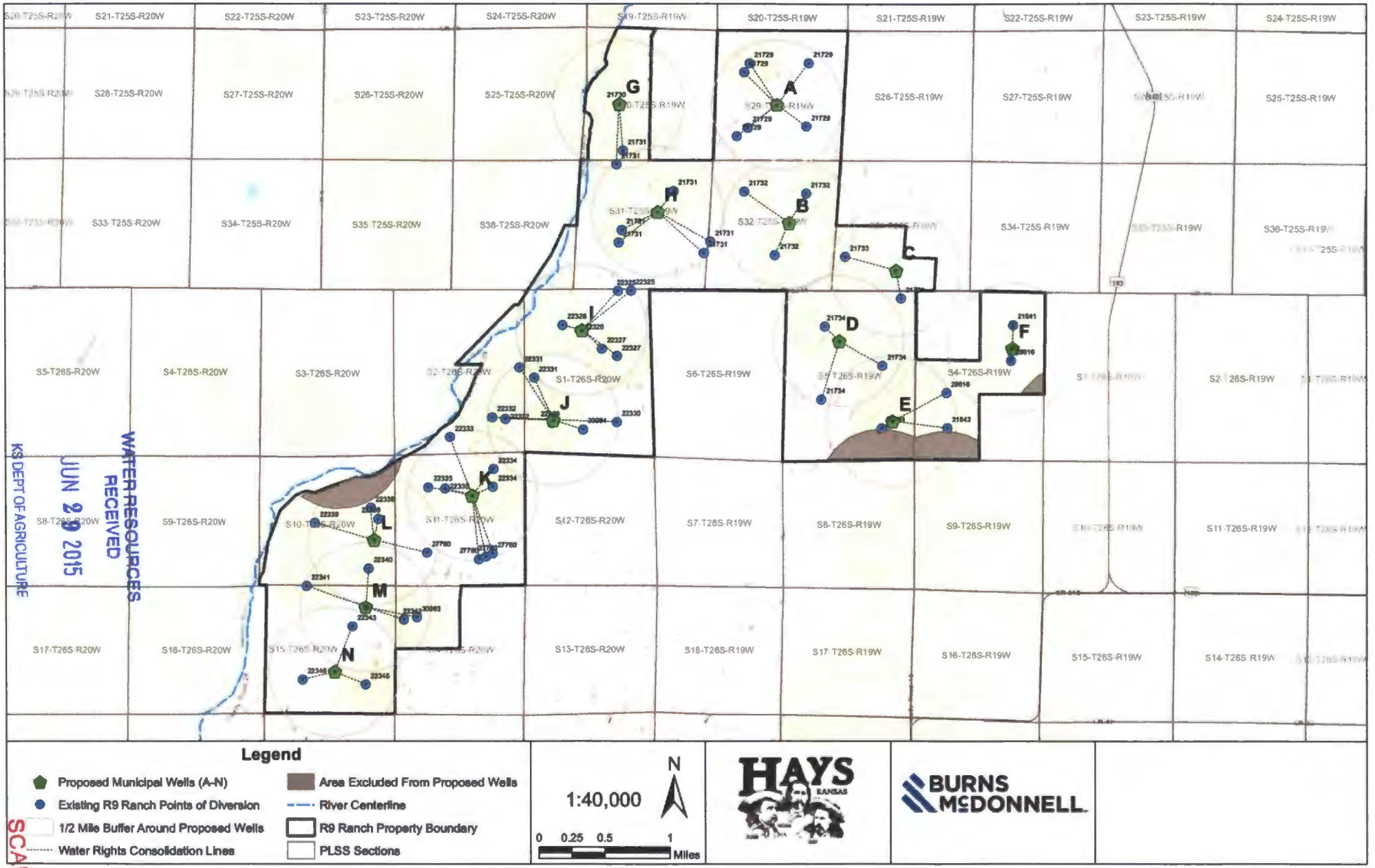

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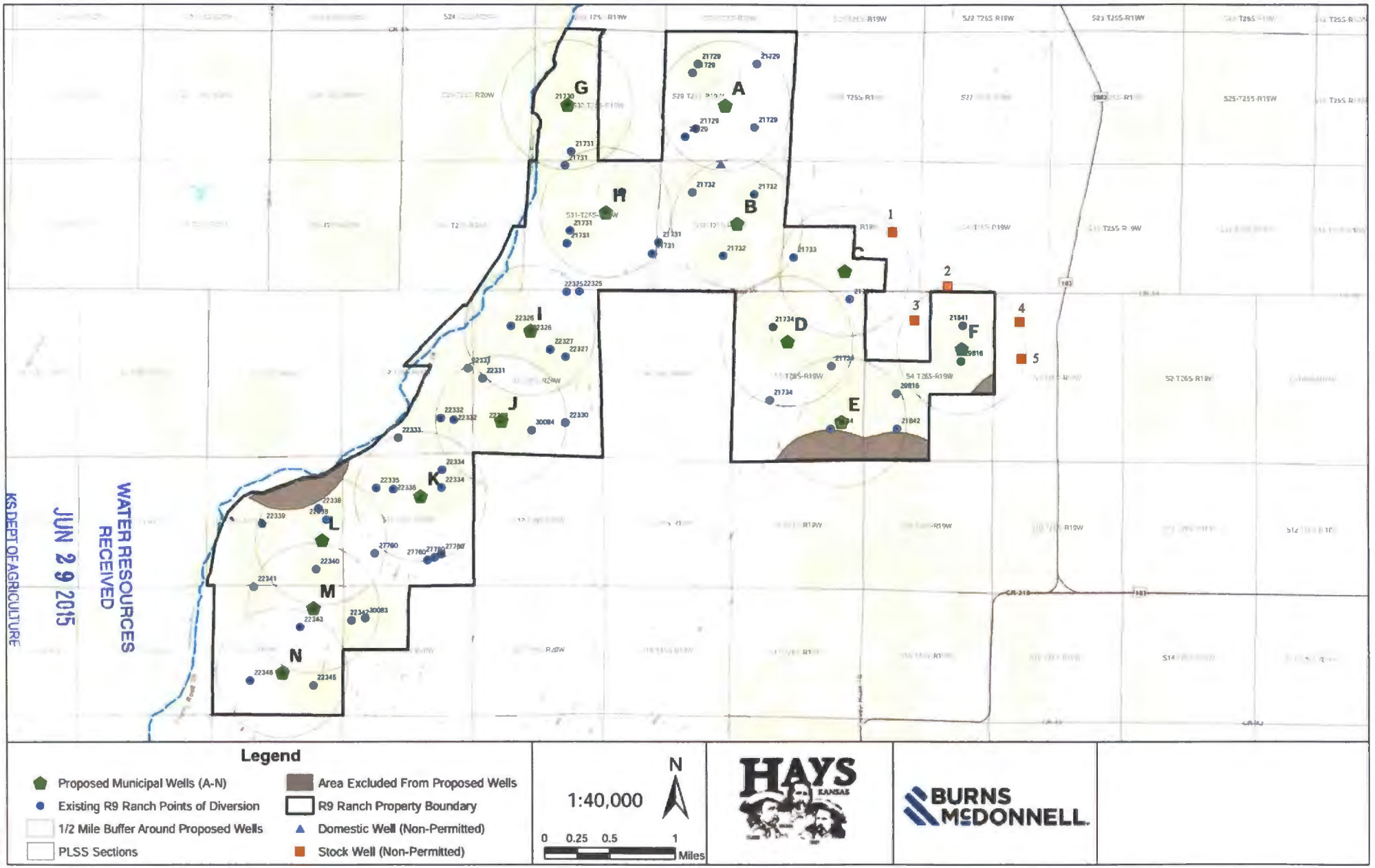

EXHIBIT

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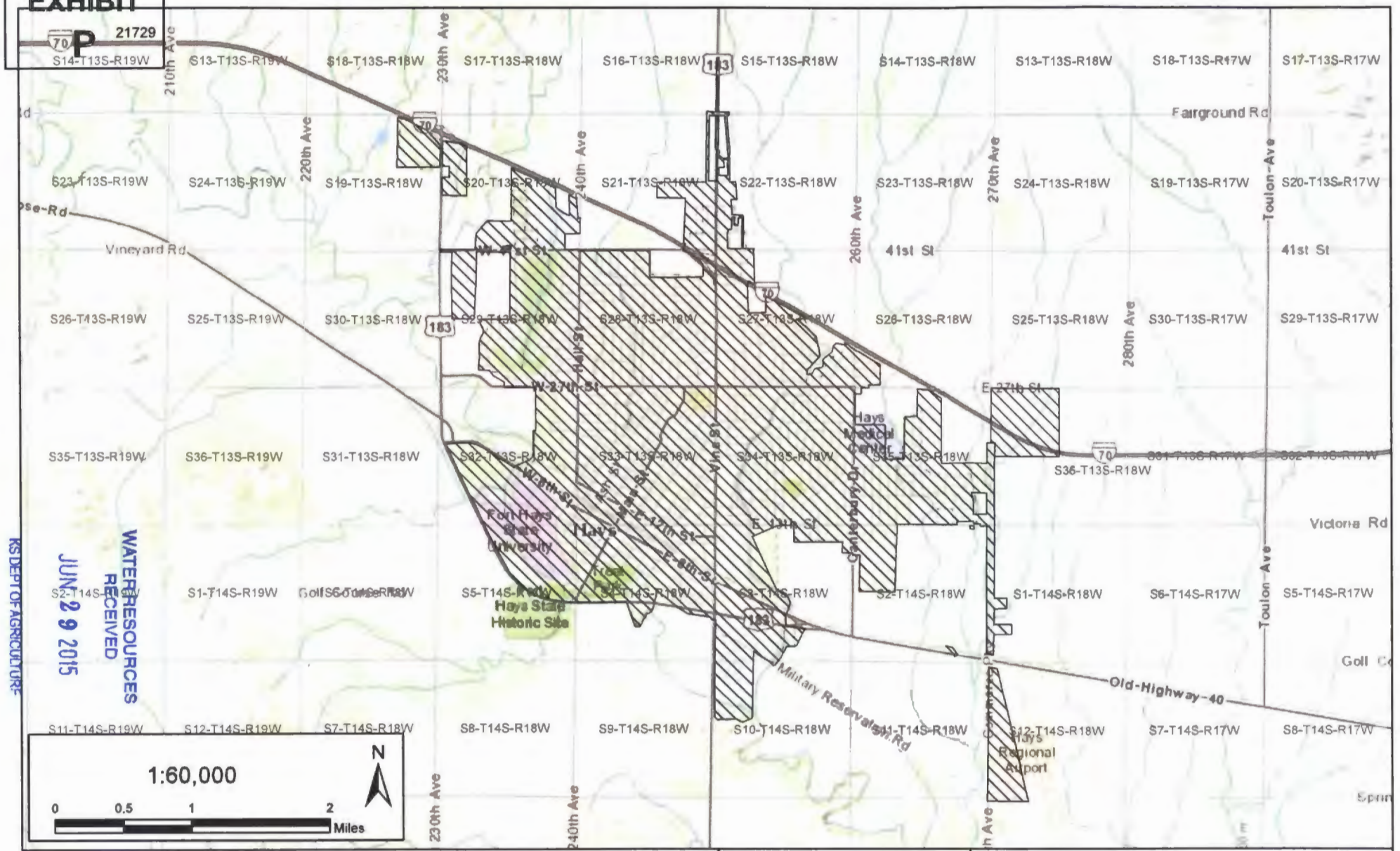

1:60,000

0 0.5 1 2 Miles

N

Proposed Place of Use City of Hays

PLSS Sections

BURNS McDONNELL

21729

EXHIBIT
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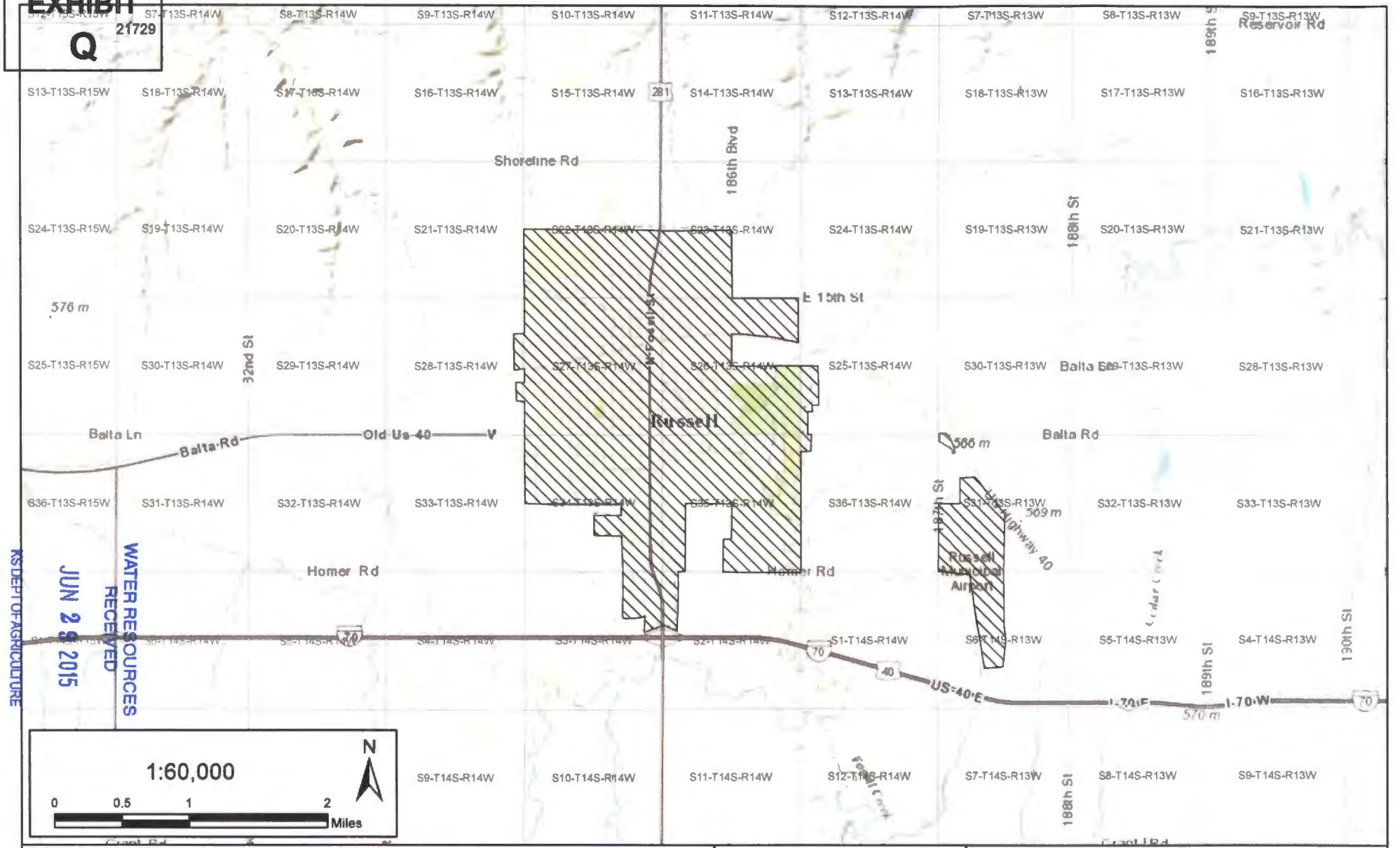
21729



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JUN 29 2015
WATER RESOURCES
RECEIVED

Proposed Place of Use - City of Russell

PLSS Sections

BURNS McDONNELL

SCANNED

21729

Applicant's Name City of Russell
(Please Print)

MUNICIPAL (PUBLIC WATER SUPPLY) APPLICATION SUPPLEMENTAL INFORMATION SHEET

Application File Number
(assigned by DWR)

SECTION 1: PRESENT WATER USE SUMMARY (IF NO PREVIOUS MUNICIPAL WATER USE HAS BEEN UTILIZED, PROCEED TO SECTION 3)
NOTE: WORKSHEET FOR WATER PUMPED, PURCHASED, AND SOLD BY YOUR WATER DISTRIBUTION SYSTEM.

Column 1 Raw Water Diverted Under Your Rights	Column 2 Water Purchased From All Sources	Column 3 Water Sold to Other Public Water Suppliers	Column 4 Water Sold to Your Industrial, Stock, and Bulk Customers	Column 5 Water Sold to Your Residential and Commercial Customers	Column 6 Other Metered Water	Column 7 Remaining Water Used (See Below Explanation)
327,288,100	0	0	105,295,000	108,743,000	19,944,000	93,306,100
TOTAL WATER = Columns 1 + 2		ACCOUNTED FOR WATER = Columns 3 + 4 + 5 + 6				UNACCOUNTED FOR WATER

UNACCOUNTED FOR WATER = TOTAL WATER - ACCOUNTED FOR WATER

Column 1: The amount of raw water diverted from all of your points of diversion.

Column 2: The amount of water purchased wholesale from all other public water supply systems or the Kansas Water Office.

Column 3: The amount of water sold wholesale to all other public water supply systems.

Column 4: The amount of water sold retail to all industrial, pasture, stockwater, feedlot, and bulk water service connections. Include the amount of water sold to all farmsteads using at least 200,000 gallons of water per year.

Column 5: The amount of water sold retail to your residential and commercial customers and to industries and farmsteads using less than 200,000 gallons of water per year.

Column 6: The amount of water used that is metered at individual service connections and supplied free, such as for public service, treatment processes, and connections receiving free water.

Column 7: The amount of remaining water used. The gallons reported in this column are found by adding the numbers in Columns 1 and 2 and subtracting the numbers in Columns 3, 4, 5, and 6.

UNACCOUNTED FOR WATER

Use the following to calculate your distribution system's Unaccounted For Water:
Start with the amount in Column 1 and add the amount in Column 2, then subtract the amounts in Columns 3, 4, 5, and 6 leaving an amount of water representing your unaccounted for water to enter in Column 7.

Use the following to calculate the percent Unaccounted For Water versus the Total Water of your system:

$$\text{Percent Unaccounted For Water} = \frac{\text{Unaccounted For Water}}{\text{Total Water (Columns 1,2)}} \times 100$$

If this number exceeds 20%, please explain the large amount of unaccounted for water and describe any steps being taken to reduce it.

EXHIBIT R

SECTION 2: PAST WATER USE
COMPLETE THE FOLLOWING TABLE FROM YOUR PAST WATER USE RECORDS.

	Column 1 Raw Water Diverted Under Your Rights	Column 2 Water Purchased From All Sources	Column 3 Water Sold to Other Public Water Suppliers	Column 4 Water Sold to Your Industrial, Stock, and Bulk Customers	Column 5 Water Sold to Your Residential and Commercial Customers	Column 6 Other Metered Water	Column 7 Remaining Water Used (See Above Explanation)
20 years ago							
15 years ago	373,757,000	0	0	171,928,220	115,864,670	18,687,850	67,276,260
10 years ago	477,488,000	0	0	222,781,000	147,340,000	19,483,000	87,882,000
5 years ago	375,790,000	0	0	144,277,000	123,343,000	18,907,000	89,263,000
	TOTAL WATER = Columns 1 + 2		ACCOUNTED FOR WATER = Columns 3 + 4 + 5 + 6				UNACCOUNTED FOR WATER

21729

SECTION 3: PROJECTED FUTURE WATER NEEDS

PLEASE COMPLETE THE FOLLOWING TABLE SHOWING YOUR FUTURE WATER REQUIREMENTS FOR THE NEXT 20 YEARS:

	Column 1 Raw Water Diverted Under Your Rights	Column 2 Water Purchased From All Sources	Column 3 Water Sold to Other Public Water Suppliers	Column 4 Water Sold to Your Industrial, Stock, and Bulk Customers	Column 5 Water Sold to Your Residential and Commercial Customers	Column 6 Other Metered Water	Column 7 Remaining Water Used (See Explanation on other side)
Year 5	386,346,512	0	0	177,719,396	119,767,419	15,453,861	73,405,836
Year 10	405,513,682	0	0	186,536,377	125,709,241	16,220,547	77,047,517
Year 15	426,310,852	0	0	196,102,992	132,156,364	17,052,434	80,999,062
Year 20	443,848,022	0	0	204,170,090	137,592,887	17,753,921	84,331,124
	TOTAL WATER = Columns 1 + 2		ACCOUNTED FOR WATER = Columns 3 + 4 + 5 + 6				UNACCOUNTED FOR WATER

SECTION 4: POPULATION AND SERVICE CONNECTIONS

ESTIMATE THE NUMBER OF PERSONS DIRECTLY SERVED BY YOUR WATER DISTRIBUTION SYSTEM

PAST POPULATION - PROVIDE INFORMATION BELOW:
(CENSUS BUREAU INFORMATION)

LAST 20 YEARS	POPULATION
20 years ago	
15 years ago	4,710
10 years ago	4,696
5 years ago	4,506
Last Year	4,475

PROJECTED FUTURE POPULATION

ESTIMATE FUTURE POPULATION AND SUBSTANTIATE NUMBERS ON SEPARATE ATTACHMENTS

NEXT 20 YEARS	POPULATION
Year 5	4,596
Year 10	4,605
Year 15	4,651
Year 20	4,698

Provide number of current active service connections:

2,049	Residential	9	Industrial	30	Other (specify) Free Service
360	Commercial	0	Pasture/ Stockwater/ Feedlot	2448	Total

SECTION 5: PRESENT GALLONS PER PERSON PER DAY

CALCULATE YOUR GALLONS PER PERSON PER DAY

Water in Columns 5, 6, and 7 ÷ Population ÷ 365 Days/Year = Gallons per Person per Day

221,991,000 (Amount of water in Columns 5, 6, and 7 of Section 1) ÷ 4,475 (Population from Last Year of Section 4) ÷ 365 Days/Year = 135.9 GALLONS PER PERSON PER DAY.

SECTION 6: AREA TO BE SERVED

Describe the area to be served or provide the legal description of the location where the water is to be used including any other city of water supply system (i.e. Rural Water District): City of Russell

Note that the actual quantity of "Unaccounted for Water" is lower than shown here. Large quantities diverted from the Pfeifer Wells are returned to the aquifer in the "Collector Well." See detailed explanation in the cover letter accompanying this application. Projected future water needs include losses in the collector well but when repaired or replaced, total raw water diversion will be reduced.

You may attach additional information you believe will assist in informing the Division of the nature of your request.

21729
Applicant's Name City Of Hays KS
(Please Print)

MUNICIPAL (PUBLIC WATER SUPPLY) APPLICATION SUPPLEMENTAL INFORMATION SHEET

Application File Number
(assigned by DWR)

SECTION 1: PRESENT WATER USE SUMMARY (IF NO PREVIOUS MUNICIPAL WATER USE HAS BEEN UTILIZED, PROCEED TO SECTION 3)
NOTE: WORKSHEET FOR WATER PUMPED, PURCHASED, AND SOLD BY YOUR WATER DISTRIBUTION SYSTEM.

Column 1 Raw Water Diverted Under Your Rights	Column 2 Water Purchased From All Sources	Column 3 Water Sold to Other Public Water Suppliers	Column 4 Water Sold to Your Industrial, Stock, and Bulk Customers	Column 5 Water Sold to Your Residential and Commercial Customers	Column 6 Other Metered Water	Column 7 Remaining Water Used (See Below Explanation)
684,559,000			10,806,000	595,254,000	16,327,000	62,172,000
TOTAL WATER = Columns 1 + 2		**ACCOUNTED FOR WATER = Columns 3 + 4 + 5 + 6**				**UNACCOUNTED FOR WATER**

UNACCOUNTED FOR WATER = TOTAL WATER - ACCOUNTED FOR WATER

Column 1: The amount of raw water diverted from all of your points of diversion.

Column 2: The amount of water purchased wholesale from all other public water supply systems or the Kansas Water Office.

Column 3: The amount of water sold wholesale to all other public water supply systems.

Column 4: The amount of water sold retail to all industrial, pasture, stockwater, feedlot, and bulk water service connections. Include the amount of water sold to all farmsteads using at least 200,000 gallons of water per year.

Column 5: The amount of water sold retail to your residential and commercial customers and to industries and farmsteads using less than 200,000 gallons of water per year.

Column 6: The amount of water used that is metered at individual service connections and supplied free, such as for public service, treatment processes, and connections receiving free water.

Column 7: The amount of remaining water used. The gallons reported in this column are found by adding the numbers in Columns 1 and 2 and subtracting the numbers in Columns 3, 4, 5, and 6.

UNACCOUNTED FOR WATER

Use the following to calculate your distribution system's Unaccounted For Water:
Start with the amount in Column 1 and add the amount in Column 2, then subtract the amounts in Columns 3, 4, 5, and 6 leaving an amount of water representing your unaccounted for water to enter in Column 7.

Use the following to calculate the percent Unaccounted For Water versus the Total Water of your system:

$$\text{Percent Unaccounted For Water} = \frac{\text{Unaccounted For Water}}{\text{Total Water (Columns 1,2)}} \times 100$$

If this number exceeds 20%, please explain the large amount of unaccounted for water and describe any steps being taken to reduce it.

EXHIBIT S

SECTION 2: PAST WATER USE
COMPLETE THE FOLLOWING TABLE FROM YOUR PAST WATER USE RECORDS.

	Column 1 Raw Water Diverted Under Your Rights	Column 2 Water Purchased From All Sources	Column 3 Water Sold to Other Public Water Suppliers	Column 4 Water Sold to Your Industrial, Stock, and Bulk Customers	Column 5 Water Sold to Your Residential and Commercial Customers	Column 6 Other Metered Water	Column 7 Remaining Water Used (See Above Explanation)
20 years ago	592,323,000			5,029,000	469,314,000	5,155,000	112,825,000
15 years ago	780,527,000			10,619,000	587,985,000	10,470,000	171,473,000
10 years ago	706,926,000			7,103,000	639,222,000	20,861,000	39,740,000
5 years ago	693,966,000			13,537,000	581,900,000	19,362,000	114,383,000
	TOTAL WATER = Columns 1 + 2		**ACCOUNTED FOR WATER = Columns 3 + 4 + 5 + 6**				**UNACCOUNTED FOR WATER**

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SECTION 3: PROJECTED FUTURE WATER NEEDS

PLEASE COMPLETE THE FOLLOWING TABLE SHOWING YOUR FUTURE WATER REQUIREMENTS FOR THE NEXT 20 YEARS:

	Column 1 Raw Water Diverted Under Your Rights	Column 2 Water Purchased From All Sources	Column 3 Water Sold to Other Public Water Suppliers	Column 4 Water Sold to Your Industrial, Stock, and Bulk Customers	Column 5 Water Sold to Your Residential and Commercial Customers	Column 6 Other Metered Water	Column 7 Remaining Water Used (See Explanation on other side)
Year 5	753,014,800			11,866,600	654,779,400	17,959,700	68,389,200
Year 10	828,316,390			13,075,260	720,257,340	19,755,670	75,228,120
Year 15	911,148,029			14,382,786	792,283,074	21,731,237	82,750,932
Year 20	1,002,262,832			15,821,065	871,511,381	23,904,361	91,026,025
	TOTAL WATER = Columns 1 + 2		ACCOUNTED FOR WATER = Columns 3 + 4 + 5 + 6				UNACCOUNTED FOR WATER

SECTION 4: POPULATION AND SERVICE CONNECTIONS

ESTIMATE THE NUMBER OF PERSONS DIRECTLY SERVED BY YOUR WATER DISTRIBUTION SYSTEM

PAST POPULATION - PROVIDE INFORMATION BELOW:
(CENSUS BUREAU INFORMATION)

LAST 20 YEARS	POPULATION
20 years ago	17,636
15 years ago	18,750
10 years ago	20,013
5 years ago	20,106
Last Year	21,038

PROJECTED FUTURE POPULATION

ESTIMATE FUTURE POPULATION AND SUBSTANTIATE NUMBERS ON SEPARATE ATTACHMENTS

NEXT 20 YEARS	POPULATION
Year 5	23,142
Year 10	25,456
Year 15	28,002
Year 20	30,802

Provide number of current active service connections:

6,824 Residential

1,256 Commercial

2 Industrial

_____ Pasture/ Stockwater/ Feedlot

_____ Other (specify) _____

8,082 Total

SECTION 5: PRESENT GALLONS PER PERSON PER DAY

CALCULATE YOUR GALLONS PER PERSON PER DAY

Water in Columns 5, 6, and 7 ÷ Population ÷ 365 Days/Year = Gallons per Person per Day

673,753,000 (Amount of water in Columns 5, 6, and 7 of Section 1) ÷ 21,038 (Population from Last Year of Section 4) ÷ 365 Days/Year = 88 GALLONS PER PERSON PER DAY.

SECTION 6: AREA TO BE SERVED

Describe the area to be served or provide the legal description of the location where the water is to be used including any other city of water supply system (i.e. Rural Water District): _____

City of Hays, KS Municipal Water Supply

2013 is year one and 2033 will be year twenty. 2 percent growth is used for estimate. Hays had a reasonable 9.1 percent unaccounted water in 2013.

You may attach additional information you believe will assist in informing the Division of the need for your request.