

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**.

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**



David W. Barfield, P.E.
State of Kansas

JUN 26 2015
4:02

Chief Engineer
Division of Water Resources
Kansas Dept. of Agriculture

*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.

1. Application is hereby made for approval of the Chief Engineer to change the

- (Check one or more) Place of Use
- Point of Diversion
- Use Made of Water

David W. Barfield, P.E.
JUN 28 2015
4:02
Chief Engineer
Division of Water Resources
Kansas Dept. of Agriculture

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8:37
KS DEPT OF AGRICULTURE

File No. 21,731 Circles 2, 3, 4, & 5.

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

SCANNED

6/30/2015 UCM

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	
30-T25S-R19W												Lot 4 30	40					70.00	
31-T25S-R19W			40	33	40	33	33	Lot 1 29	Lot 2 24	38	40	Lot 3 39.77	Lot 4 2	7	40	40	40	40	518.77
32-T25S-R19W												12	12					24.00	
36-T25S-R20W																	Lot 6 3	3.00	

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.

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IF MORE SPACE IS NEEDED, ATTACH ADDITIONAL SHEETS AS NECESSARY

JUN 29 2015 SCANNED

- 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 SW Quarter of the SE Quarter of the SW Quarter of Section 30, Township 25 South, Range 19 (~~E/W~~), in Edwards County, Kansas, 380 feet North 3,785 feet West of Southeast corner of section.
 Authorized Rate 450 gpm Authorized Quantity 80 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 NW Quarter of the NE Quarter of the SW Quarter of Section 30, Township 25 South, Range 19 (~~E/W~~), in Edwards County, Kansas, 2,282 feet North 3,870 feet West of Southeast corner of section.
 Proposed Rate 1,075 gpm Proposed Quantity 222.93 a/f
 This point is: Additional Well Geo Center List other water rights that will use this point 21,730

9. **Presently authorized point of diversion:**
 One in the near the center Quarter of the _____ Quarter of the NE Quarter of Section 31, Township 25 South, Range 19 (~~E/W~~), in Edwards County, Kansas, 3,975 feet North 1,270 feet West of Southeast corner of section.
 Authorized Rate 605 gpm Authorized Quantity 162 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 SW Quarter of the SW Quarter of the NE Quarter of Section 31, Township 25 South, Range 19 (~~E/W~~), in Edwards County, Kansas, 3,142 feet North 2,099 feet West of Southeast corner of section.
 Proposed Rate 2,490 gpm Proposed Quantity 768.07 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 NW Quarter of the NE Quarter of the SW Quarter of Section 31, Township 25 South, Range 19 (~~E/W~~), in Edwards County, Kansas, 2,460 feet North 3,660 feet West of Southeast corner of section.
 Authorized Rate 735 gpm Authorized Quantity 177 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 SW Quarter of the SW Quarter of the NE Quarter of Section 31, Township 25 South, Range 19 (~~E/W~~), in Edwards County, Kansas, 3,142 feet North 2,099 feet West of Southeast corner of section.
 Proposed Rate 2,490 gpm Proposed Quantity 768.07 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

WATER RESOURCES RECEIVED

- 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 W/2 Quarter of the NE of the SE Quarter of Section 31, Township 25 South, Range 19 (~~E/W~~), in Edwards County, Kansas, 1,925 feet North 3,810 feet West of Southeast corner of section. Authorized Rate 525 gpm Authorized Quantity 126 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 SW Quarter of the SW Quarter of the NE Quarter of Section 31, Township 25 South, Range 19 (~~E/W~~), in Edwards County, Kansas, 3,142 feet North 2,099 feet West of Southeast corner of section. Proposed Rate 2,490 gpm Proposed Quantity 768.07 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 SE Quarter of the NE Quarter of the SE Quarter of Section 31, Township 25 South, Range 19 (~~E/W~~), in Edwards County, Kansas, 1,899 feet North 54 feet West of Southeast corner of section. Authorized Rate 380 gpm Authorized Quantity 87 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 SW Quarter of the SW Quarter of the NE Quarter of Section 31, Township 25 South, Range 19 (~~E/W~~), in Edwards County, Kansas, 3,142 feet North 2,099 feet West of Southeast corner of section. Proposed Rate 2,490 gpm Proposed Quantity 768.07 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 SE Quarter of the NE Quarter of the SE Quarter of Section 31, Township 25 South, Range 19 (~~E/W~~), in Edwards County, Kansas, 1,440 feet North 405 feet West of Southeast corner of section. Authorized Rate 245 gpm Authorized Quantity 56 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 SW Quarter of the SW Quarter of the NE Quarter of Section 31, Township 25 South, Range 19 (~~E/W~~), in Edwards County, Kansas, 3,142 feet North 2,099 feet West of Southeast corner of section. Proposed Rate 2,490 gpm Proposed Quantity 768.07 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.

WATER RESOURCES RECEIVED

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 NW Quarter of the NE Quarter of the NW Quarter of Section 31, Township 25 South, Range 19 (E/W), in Edwards County, Kansas, 5,125 feet North 3,920 feet West of Southeast corner of section.
 Authorized Rate 625 gpm Authorized Quantity 192 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 NW Quarter of the NE Quarter of the SW Quarter of Section 30, Township 25 South, Range 19 (E/W), in Edwards County, Kansas, 2,282 feet North 3,870 feet West of Southeast corner of section.
 Proposed Rate 1,075 gpm Proposed Quantity 222.93 a/f
 This point is: Additional Well Geo Center List other water rights that will use this point 21,730 & 37,462

9. **Presently authorized point of diversion:**
 One in the _____ Quarter of the _____ Quarter of the _____ Quarter of Section _____, Township _____ South, Range _____ (E/W), in _____ County, Kansas, _____ feet North _____ feet West of Southeast corner of section.
 Authorized Rate _____ Authorized Quantity _____
 (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 _____ Quarter of the _____ Quarter of the _____ Quarter of Section _____, Township _____ South, Range _____ (E/W), in _____ County, Kansas, _____ feet North _____ feet West of Southeast corner of section.
 Proposed Rate _____ Proposed Quantity _____
 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 _____ Quarter of the _____ Quarter of the _____ Quarter of Section _____, Township _____ South, Range _____ (E/W), in _____ County, Kansas, _____ feet North _____ feet West of Southeast corner of section.
 Authorized Rate _____ Authorized Quantity _____
 (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 _____ Quarter of the _____ Quarter of the _____ Quarter of Section _____, Township _____ South, Range _____ (E/W), in _____ County, Kansas, _____ feet North _____ feet West of Southeast corner of section.
 Proposed Rate _____ Proposed Quantity _____
 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.

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IF MORE SPACE IS NEEDED, ATTACH ADDITIONAL SHEETS AS NECESSARY

JUN 29 2015

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 1/2 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 1/2 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) 1/2 mile downstream and 1/2 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.

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IF MORE SPACE IS NEEDED, ATTACH ADDITIONAL SHEETS AS NECESSARY JUN 29 2015

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.

[Signature]

(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)
County of Russell) SS



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

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.

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JUN 29 2015

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, 2015.

(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 }
County of Russell } SS



I hereby certify that the foregoing application was signed in my presence and sworn to before me this 23rd day of June, 2015.

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.

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Proposed Rate and Quantity

The Cities are requesting a total of 991 acre-feet and 3,285 gallons per minute from the seven wells associated with this water right, which will be divided among new points of diversion G and H, as shown on Exhibit S. The two existing wells in the southwest quarter of section 30 and the northwest quarter of section 31 total 222.93 acre-feet and 1,075 gallons per minute to be diverted from new point of diversion G; and the remaining existing wells total 768.07 acre-feet and 2,490 gallons per minute to be diverted from new point of diversion H. When combined with existing wells from other water rights, new point of diversion G will have a cumulative total of 426.7 acre-feet and 1,870 gallons per minute and new point of diversion H will have a total of 768.07 acre-feet and 2,490 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 614.52 acre-feet for municipal use.¹ As discussed below, 569 approved acres were irrigated during the perfection period; 569 acres multiplied by the Edwards County NIR for corn of 1.08 acre-feet per acre equals 614.52 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 1,090 acre-feet annually at a rate of up to 3,900 gallons per minute for irrigation use⁴ on 621 acres in Sections 30, 31, and 32-T25S-R19W and Section 36-T25S-R20W,⁵ or 1.755 acre-feet per acre. The certificate further limited the quantity for the well located in the southwest quarter of the southwest quarter of section 30 and the well located in the northwest quarter of the northeast quarter of the northwest quarter of section 31 to 192 acre-feet when the wells were operated simultaneously.⁶

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 998.73 of the 1,090 acre-feet authorized by the permit were lawfully perfected. A total of 1,118 acre feet were applied to authorized 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, HAYS001010-11, Ex. A.

⁵ Application, HAYS001002, Ex. B.

⁶ Certificate, HAYS001034, Ex. C.

⁷ February 27, 1976, letter, HAYS001009, Ex. D (emphasis added).

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- 230 acre-feet⁸ and 118 acre feet⁹ (348 acre-feet) were applied to 128 approved acres.
- 159 acre-feet¹⁰ and 223 acre-feet¹¹ (382 acre-feet) were applied to 211 approved acres.
- 56 acre-feet¹² and 87 acre-feet¹³ (143 acre-feet) were applied to 122 approved acres.
- 245 acre-feet were applied to 108 approved acres.¹⁴
- The permit authorized the perfection of 1,090 acre-feet on 621 acres, or 1.755 acre-feet per acre, but only 569 authorized acres were irrigated during the perfection period, resulting in perfection of 998.73 acre feet

While the certificate limits the total quantity to 880 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.¹⁵

Since the perfection period has expired, the "authorized quantity" for this water right is the 998.73 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

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 during the year of record,¹⁶ it is reasonable to use the NIR for alfalfa, which yields a total quantity of 991.01 acre-feet consumed. While this quantity is greater than the quantity set out in the certificate, it is less than the 998.73 perfected acre-feet, the "maximum annual quantity authorized by the water right."¹⁷

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.¹⁸ 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.

⁸ FIR, HAYS000986, Ex. E, and HAYS000997, Ex. F.

⁹ FIR, HAYS000980, Ex. G.

¹⁰ FIR, HAYS000944, Ex. H.

¹¹ FIR, HAYS000950, Ex. I.

¹² FIR, HAYS000961, Ex. J.

¹³ FIR, HAYS000968, Ex. K.

¹⁴ FIR, HAYS000975, Ex. L.

¹⁵ Certificate, HAYS001034-1035, Ex. C; Doug Bush Memo dated March 20, 1995, HAYS001024-1025, Ex. M; and *Clawson v. Kansas Dept. of Agriculture, Div. of Water Resources*, 49 Kan. App. 2d 789, 315 P.3d 896 (2013).

¹⁶ FIRs, HAYS000947 (Ex. H), 953 (Ex. I), 964 (Ex. J), 971 (Ex. K), 978 (Ex. L), and 1000 (Ex. F). *See also* 1977WUR, HAYS000892, Ex. N, and HAYS004448-4453 (Ex. O).

¹⁷ *See* K.A.R. 5-5-9(a)(4).

¹⁸ Administrative Policy No. 86-8, dated Nov. 5, 1986, Ex. P, 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, HAYS000679-70, Ex. Q.

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If 28% of the 998.73 acre-feet legally applied during the perfection period percolates back to the aquifer, then 72%, or 719.08 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 998.73 perfected acre-feet, the "maximum annual quantity authorized by the water right."

The applicants request that DWR approve a total of 991.01 acre-feet for municipal use.

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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. 21,731 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

(See Paragraph No. 13)

4. That the appropriation sought shall be limited to a maximum diversion rate not in excess of
3900 gallons per minute (8.69 c.f.s.)
and to a quantity of not to exceed 1090 acre-feet for any calendar year.

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(OVER)

circles 2, 3, 4, 5

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5. That installation of works for diversion of water shall be completed on or before December 31, 1977. 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, 1981.

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.

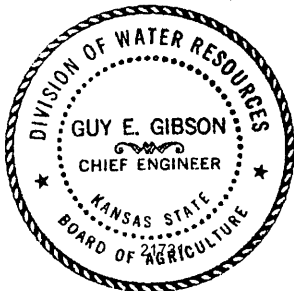
13. That the source from which the appropriation is made shall be from ground water in the drainage basin of the Arkansas River to be withdrawn by means of seven (7) wells: one well in the Southwest Quarter of the Southeast Quarter of the Southwest Quarter (SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$) of Section 30, one well near the center of the Northeast Quarter (NE $\frac{1}{4}$), one well in the Northwest Quarter of the Northeast Quarter of the Northwest Quarter (NW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$), one well in the Northwest Quarter of the Northeast Quarter of the Southwest Quarter (NW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$), one well near the center of the West side of the Northeast Quarter of the Southwest Quarter (NE $\frac{1}{4}$ SW $\frac{1}{4}$) and two wells in the Southeast Quarter of the Northeast Quarter of the Southeast Quarter (SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$) of Section 31, all in Township 25 South, Range 19 West, in Edwards County, Kansas, located substantially as shown on the aerial photograph accompanying the application.

Dated this 27th day of February 1976

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

HAYS001011

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 1-2-74
ck from Wilson & Flamm
aa

NUMBER 21731

APPLICATION FOR PERMIT TO
APPROPRIATE WATER FOR BENEFICIAL USE

(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.) MIDWEST LAND & CATTLE COMPANY
(Mrs.) C/O JOHN CARSON, MANAGER
(Miss) Kinsley Joint Venture

* SEE LETTER
DATED 8-8-75
GEE.

Comes now the applicant whose post office

address is Box 208, Kinsley, KS. 67547
~~c/o Andrew J. Moore, Attorney at Law, P.O. Box 588, Woodward, Oklahoma 75801~~

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)

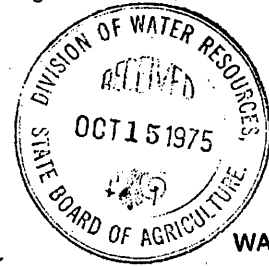
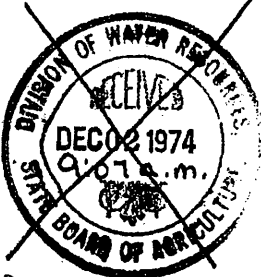
as may be available in Arkansas River Basin in the county of Edwards
(name of stream or drainage basin)

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 1090 acre feet per year, to be
(acre feet or million gallons)
diverted at a maximum rate of 3900 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 See back page quarter of the
quarter of the See back page quarter of section See back page, township See back page, range See back page, in
Edwards County, Kansas.

3. The water is intended to be appropriated for:



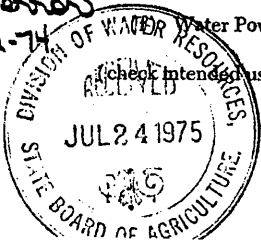
- | | Amount |
|--------------------------|---|
| (a) Domestic use () | _____ |
| (b) Municipal use () | _____ |
| (c) Irrigation use (x) | <u>1090 acre ft.</u>
<u>3900 gals per minute</u> |
| (d) Industrial use () | _____ |
| (e) Recreational use () | _____ |
| Water Power use () | _____ |

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* MAR 27 1976

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21731

Page 1 of 2
FIELD OFFICE
DIVISION OF WATER RESOURCES
STAFFORD

FIELD OFFICE
DIVISION OF WATER RESOURCES
STAFFORD

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;

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

MIDWEST LAND & CATTLE CO.
 C/O John CARSON, MANAGER
 KINSLEY, KS. 67547
 * GEE-SEE LETTER
 DATED 8-8-75

Owner of Land—NAME: ~~Kinsley Joint Venture~~

ADDRESS: ~~c/o Andrew J. Moore, Attorney, P. O. Box 588, Woodward, Oklahoma 73801~~

Sec. Twp. Range	NE $\frac{1}{4}$				NW $\frac{1}{4}$				SW $\frac{1}{4}$				SE $\frac{1}{4}$				Total
	NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$	NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$	NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$	NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$	
31 25 19	27	34	38	27	34	28	38	39	34	37	13	6	40	35	17	39	488
30 25 19		5			35	26	3	5							1	2	50
36 25 20				7									20			7	34

This acreage irrigated by pump well and irrigation system located in NW $\frac{1}{4}$ of NE $\frac{1}{4}$ of NW $\frac{1}{4}$ of 31-25-19 plus auxiliary well in SE $\frac{1}{4}$ of SE $\frac{1}{4}$ of SW $\frac{1}{4}$ of 30-25-19.

Owner of Land—NAME: SAME AS ABOVE

ADDRESS: SAME AS ABOVE

Sec. Twp. Range	NE $\frac{1}{4}$				NW $\frac{1}{4}$				SW $\frac{1}{4}$				SE $\frac{1}{4}$				Total
	NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$	NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$	NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$	NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$	
31 25 19			2				8	10	40	40	20	23		10	5		170
32 25 19							1			25	23						49

Also irrigated are 13 acres of accreted land next to river on west side of this section. This acreage all irrigated by 2 pumps, 2 wells and irrigation system located in SW $\frac{1}{4}$ of NW $\frac{1}{4}$ of SW $\frac{1}{4}$ of said section.

Owner of Land—NAME: SAME AS ABOVE

ADDRESS: SAME AS ABOVE

Sec. Twp. Range	NE $\frac{1}{4}$				NW $\frac{1}{4}$				SW $\frac{1}{4}$				SE $\frac{1}{4}$				Total
	NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$	NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$	NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$	NE $\frac{1}{4}$	NW $\frac{1}{4}$	SW $\frac{1}{4}$	SE $\frac{1}{4}$	
* 31 25 19				6										37	8	7	361
* 32 25 19							5			27	25						151
** 31 25 19	32	31	24	25													1003

* This acreage irrigated by 2 wells and 2 pumps with the center of said irrigation system located in the SE $\frac{1}{4}$ of NE $\frac{1}{4}$ of SW $\frac{1}{4}$ of Section 31-25-19.
 ** This acreage irrigated by pump, well, and center of irrigation system located in SE $\frac{1}{4}$ of NE $\frac{1}{4}$ of NE $\frac{1}{4}$ of Section 31-25-19

* Guy Ellis

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~~2# wells and pump supplying 4 irrigation systems with another well and pump, in Section 30, supplying one of these 4 irrigation systems~~

7. The works for diversion of water will consist of _____

(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 held 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

(Applicant)

By D. Allen Frame
(Agent or Officer)
D. Allen Frame, Attorney

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.

M1-230



8-72-10M BETS

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Answers for No. 2.

Location for proposed wells -

- ✓ NW/4 of NE/4 of NW/4
- ✓ NW/4 of NE/4 of SW/4
- ~~SW/4 of NE/4 of SW/4~~ Near ctr. of W side of NE 1/4 of SW 1/4 JE
- ~~NE/4 of SE/4 of SE/4~~ SE 1/4 NE 1/4 SE 1/4
- ✓ SE/4 of NE/4 of SE/4
- 1 ~~SE/4 of NE/4 of NE/4~~ Near Ctr. of the NE 1/4 JE

All in Section 31, Township 25, Range 19, Edwards County, Kansas

Sec. 30, T25S-R19W SW 1/4 SE 1/4 SW 1/4 JE

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HAYS001005

JUL 24 1975
STATE BOARD OF AGRICULTURE

The circle system whose pivot is marked by point X, has one well and pump at the pivot and one well and pump 500 yds to the northeast at point Y. Points X and Y are joined by a pipe line. This irrigation system covers 112 acres and has a radius of 1250 feet.

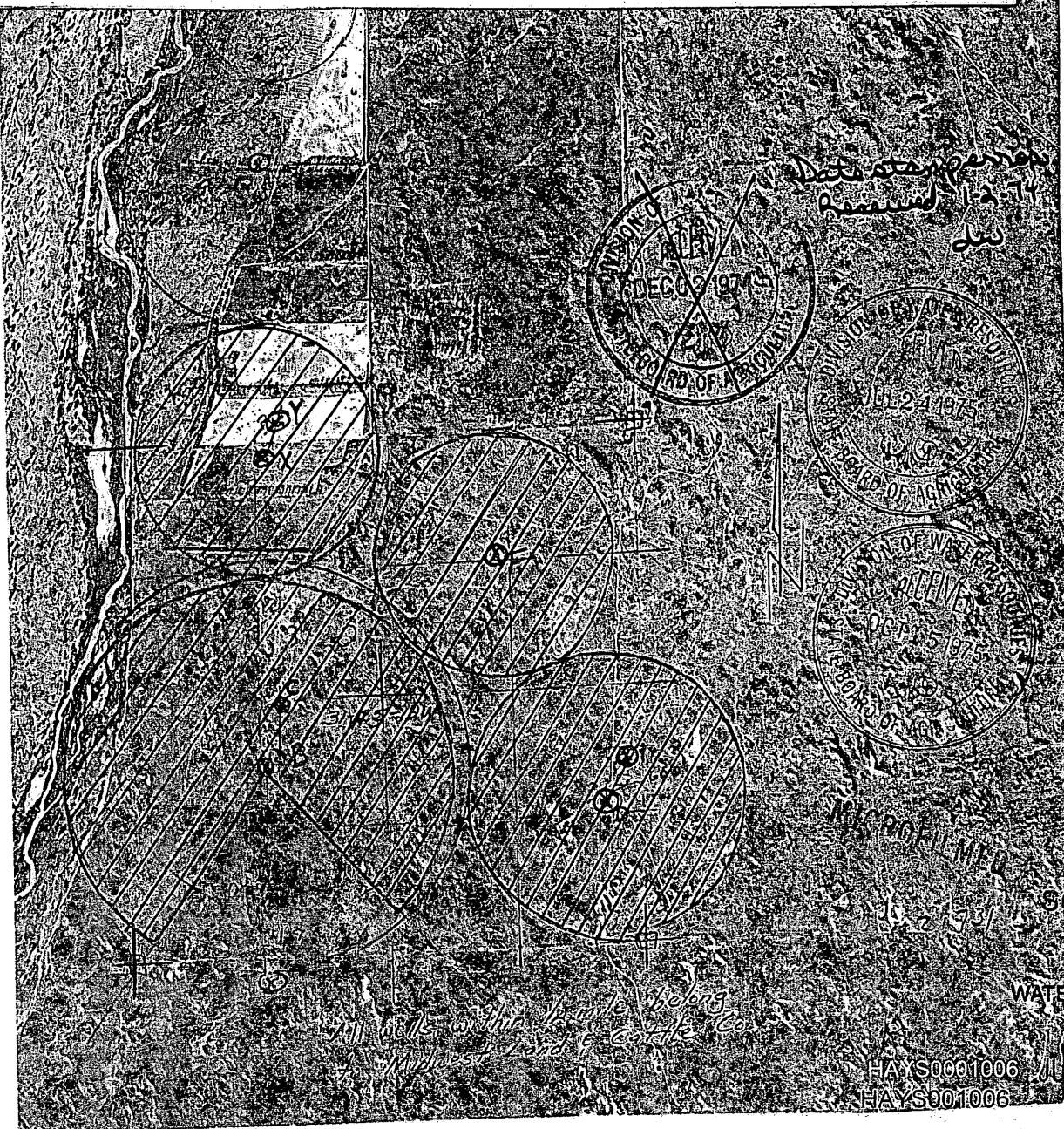
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The irrigation system whose pivot is marked by point B has one well and pump at point A which is 200 feet west of point B and one well and pump at point C which is 500 yards north of point B. There is a pipe line running from A to B and a pipe line running from C to B. This system covers 170 acres and has a radius of 1575 feet.

The irrigation system whose system is marked by point D has one well and pump at the pivot and another well and pump at point E which is 1/8th of a mile north of point D. This system covers 151 acres and has a radius of 1447 feet. A pipeline connects points D and E.

DECO 2 1974
STATE BOARD OF AGRICULTURE

The system whose pivot is marked by point F has one well and pump at the pivot, this covers 112 acres and has a radius of 1250 feet.



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JUN 29 2015
HAYS0001006
HAYS001006

THE STATE



OF KANSAS

KANSAS DEPARTMENT OF AGRICULTURE
Alice A. Devine, Secretary of Agriculture

DUPLICATE COPY
DIVISION OF WATER RESOURCES
David L. Pope, Chief Engineer

CERTIFICATE OF APPROPRIATION

FOR BENEFICIAL USE OF WATER

WATER RIGHT, File No. 21,731

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 Department 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 seven (7) wells:

one (1) well located in the Southwest Quarter of the Southeast Quarter of the Southwest Quarter (SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$) of Section 30, more particularly described as being near a point 380 feet North and 3,785 feet West of the Southeast corner of said section, at a diversion rate not in excess of 450 gallons per minute (1.00 c.f.s.) and a quantity not to exceed 80 acre-feet of water per calendar year;

one (1) well located near the center of the Northeast Quarter (NE $\frac{1}{4}$) of Section 31, more particularly described as being near a point 3,975 feet North and 1,270 feet West of the Southeast corner of said section, at a diversion rate not in excess of 605 gallons per minute (1.35 c.f.s.) and a quantity not to exceed 162 acre-feet of water per calendar year;

one (1) well located in the Northwest Quarter of the Northeast Quarter of the Northwest Quarter (NW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$) of Section 31, more particularly described as being near a point 502 feet North and 3,920 feet West of the Southeast corner of said section, at a diversion rate

Per H. H. H.

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AUG 31 1995

HAYS001034

Re: File No. 21,731

DUPLICATE COPY Page 2

not in excess of 625 gallons per minute (1.39 c.f.s.) and a quantity not to exceed 192 acre-feet of water per calendar year;

one (1) well located in the Northwest Quarter of the Northeast Quarter of the Southwest Quarter (NW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$) of Section 31, more particularly described as being near a point 2,460 feet North and 3,660 feet West of the Southeast corner of said section, at a diversion rate not in excess of 735 gallons per minute (1.64 c.f.s.) and a quantity not to exceed 177 acre-feet of water per calendar year;

one (1) well located near the center of the West side of the Northeast Quarter of the Southwest Quarter (NE $\frac{1}{4}$ SW $\frac{1}{4}$) of Section 31, more particularly described as being near a point 1,925 feet North and 3,810 feet West of the Southeast corner of said section, at a diversion rate not in excess of 525 gallons per minute (1.17 c.f.s.) and a quantity not to exceed 126 acre-feet of water per calendar year;

one (1) well located in the Southeast Quarter of the Northeast Quarter of the Southeast Quarter (SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$) of Section 31, more particularly described as being near a point 1,899 feet North and 54 feet West of the Southeast corner of said section, at a diversion rate not in excess of 380 gallons per minute (0.85 c.f.s.) and a quantity not to exceed 87 acre-feet of water per calendar year, and

one (1) well located in the Southeast Quarter of the Northeast Quarter of the Southeast Quarter (SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$) of Section 31, more particularly described as being near a point 1,440 feet North and 405 feet West of the Southeast corner of said section, at a diversion rate not in excess of 245 gallons per minute (0.55 c.f.s.) and a quantity not to exceed 56 acre-feet of water per calendar year,

all in Township 25 South, Range 19 West, Edwards County, Kansas,

for irrigation use on the following described property:

23.00 acres in Lot 4 (SW $\frac{1}{4}$ NE $\frac{1}{4}$),
26.00 acres in the Southeast Quarter of the Northeast Quarter (SE $\frac{1}{4}$ NE $\frac{1}{4}$),
1.00 acre in the Southwest Quarter of the Southeast Quarter (SW $\frac{1}{4}$ SE $\frac{1}{4}$),

a total of 50.00 acres in Section 30, Township 25 South,
Range 19 West,

27.00 acres in the Northeast Quarter of the Northeast Quarter (NE $\frac{1}{4}$ NE $\frac{1}{4}$),
34.00 acres in the Northwest Quarter of the Northeast Quarter (NW $\frac{1}{4}$ NE $\frac{1}{4}$),
38.00 acres in the Southwest Quarter of the Northeast Quarter (SW $\frac{1}{4}$ NE $\frac{1}{4}$),
27.00 acres in the Southeast Quarter of the Northeast Quarter (SE $\frac{1}{4}$ NE $\frac{1}{4}$),
36.00 acres in the Northeast Quarter of the Northwest Quarter (NE $\frac{1}{4}$ NW $\frac{1}{4}$),
28.00 acres in Lot 1-(NW $\frac{1}{4}$ NW $\frac{1}{4}$),
38.00 acres in Lot 2 (SW $\frac{1}{4}$ NW $\frac{1}{4}$),
39.00 acres in the Southeast Quarter of the Northwest Quarter (SE $\frac{1}{4}$ NW $\frac{1}{4}$),
34.00 acres in the Northeast Quarter of the Southwest Quarter (NE $\frac{1}{4}$ SW $\frac{1}{4}$),

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MAY 8001035

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Re: File No. 21,731

37.00 acres in Lot 3 (NW $\frac{1}{4}$ SW $\frac{1}{4}$),
 13.00 acres in Lot 4 (SW $\frac{1}{4}$ SW $\frac{1}{4}$),
 6.00 acres in the Southeast Quarter of the Southwest Quarter (SE $\frac{1}{4}$ SW $\frac{1}{4}$),
 40.00 acres in the Northeast Quarter of the Southeast Quarter (NE $\frac{1}{4}$ SE $\frac{1}{4}$),
 35.00 acres in the Northwest Quarter of the Southeast Quarter (NW $\frac{1}{4}$ SE $\frac{1}{4}$),
 17.00 acres in the Southwest Quarter of the Southeast Quarter (SW $\frac{1}{4}$ SE $\frac{1}{4}$),
 39.00 acres in the Southeast Quarter of the Southeast Quarter (SE $\frac{1}{4}$ SE $\frac{1}{4}$),

a total of 488.00 acres in Section 31, Township 25 South,
 Range 19 West,

1.00 acre in the Southwest Quarter of the Northwest Quarter (SW $\frac{1}{4}$ NW $\frac{1}{4}$),
 25.00 acres in the Northwest Quarter of the Southwest Quarter (NW $\frac{1}{4}$ SW $\frac{1}{4}$),
 23.00 acres in the Southwest Quarter of the Southwest Quarter (SW $\frac{1}{4}$ SW $\frac{1}{4}$),

a total of 49.00 acres in Section 32, Township 25 South,
 Range 19 West,

7.00 acres in Lot 7,
 17.30 acres in Lot 6,
 7.00 acres in Lot 5,

a total of 31.30 acres in Lot 36, Township 25 South, Range 20 West,
 all in Edwards County, Kansas.

The quantity for the two (2) wells, one (1) well located in the Southwest Quarter of the Southeast Quarter of the Southwest Quarter (SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$) of Section 30, more particularly described as being near a point 380 feet North and 3,785 feet West of the Southeast corner of said section, and one (1) well located in the Northwest Quarter of the Northeast Quarter of the Northwest Quarter (NW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$) of Section 31, more particularly described as being near a point 5,125 feet North and 3,920 feet West of the Southeast corner of said section is further limited to (192) acre-feet of water per calendar year when the wells are operated simultaneously.

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.

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JUN 29 2015

AUG 31 1995

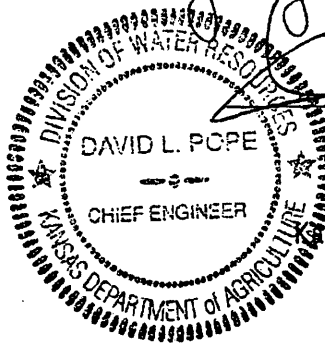
HAYS 001036 KS DEPT OF AGRICULTURE

DUPLICATE COPY

Re: File No. 21,731

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 25th day of July, 1995

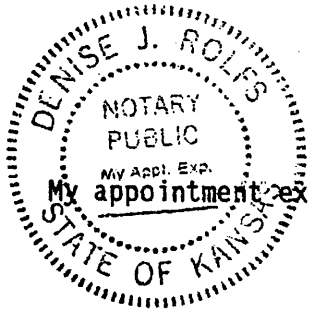


[Handwritten signature of David L. Pope]

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

State of Kansas)
County of Shawnee) SS

The foregoing instrument was acknowledged before me this 25th day of July, 1995 by David L. Pope, P.E., Chief Engineer, Division of Water Resources, Kansas Department of Agriculture.



[Handwritten signature of Denise J. Rolfs]
Notary Public

WATER RESOURCES
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JUN 29 2015

KS DEPT OF AGRICULTURE

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

CERTIFICATE OF APPROPRIATION
FOR BENEFICIAL USE OF WATER

STATE OF KANSAS

21,731

Water Right, File No.

STATE OF KANSAS,

COUNTY, ss.

Filed for record this _____ day of _____, 19____
Page 22 of 96

at _____ o'clock _____ m. and _____

recorded in Book _____ Page _____

Fee \$ _____

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AUG 31 1995

FILED OFFICE
DIVISION OF WATER RESOURCES
REGISTER OF DEEDS

Register of Deeds

SCANNED

HAYS001037

MICROFILMED

EXHIBIT

21731

D

E-N²

February 27, 1976

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

Re: Appropriation of Water
Application No. 21,731

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,

WATER RESOURCES
RECEIVED

Riley M. Dixon
Hydrologist

JUN 29 2015

SCANNED
KS DEPT OF AGRICULTURE

RMD:ee1

Encs.

RECEIVED

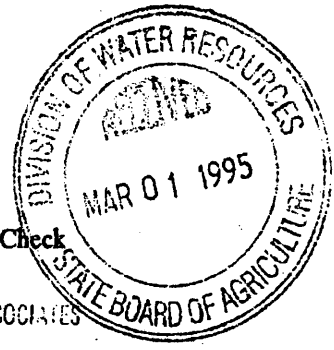
MAR 8 1976

MAR 8 1976
FILMED

Part II of test started earlier by Ag. Eng.

21731
EXHIBIT
E

DIVISION OF WATER RESOURCES—KANSAS STATE BOARD OF AGRICULTURE
FIELD INSPECTION REPORT



Field Office No. 02
G.M.D. No. 05

Full
 Partial
 Compliance Check

Test 1 of 7 diversion points. County Edwards
(Circle 2, "A" will test #2)

EVANS-BIERLY-HUTCHISON & ASSOCIATES
CONSULTING ENGINEERS
GREAT BEND, KANSAS 67530

File No. 21,731 Inspection Date 2-23-95 Firm/Field Office _____

Current Landowner City of Hays, KS Phone No. (913) 668-1350
Leo Wellbrock, Public Works Director

Address 16th & Main Hays, KS 67601

Additional landowners and addresses identified in remarks section.

Water Use () Domestic () Industrial (x) Irrigation () Municipal () Hydraulic Dredging
Classification: () Recreation () Stockwatering () Water Power () Artificial Recharge () Contamination Remediation
Source: (x) Groundwater () Surface Water Basin/Stream ARKANSAS RIVER

Authorized Point of Diversion: NW NE NW Sec. 31, T. 25, R. 19W, ID No. 02
Approximately _____ ft. North and _____ ft. West of SE corner of Sec. 31

Actual Point of Diversion: NW NE NW Sec. 31, T. 25, R. 19W
Approximately 5125 ft. North and 3920 ft. West of SE corner of Sec. 31

How were distances determined? Aerial Photo - Field Insp. Reports.

"Approved" Quantity 1090 AF "Approved" Diversion Rate 3900 g.p.m. (8.69 c.f.s.)

Priority Date 1-2-94 Approval Date 2-27-96 Perfection Date 12-31-81

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	NE $\frac{1}{4}$				NW $\frac{1}{4}$				SW $\frac{1}{4}$				SE $\frac{1}{4}$				TOTAL ACRES
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
30	25	19											23	26			1		50
31	25	19	27	34	38	27	36	28	38	39	34	37	13	6	40	35	17	39	488
32	25	19							1				25	23					49
36	25	20				7									20		7		34
																	621		

LAND IRRIGATED—YEAR OF RECORD 1988

S	T	R	NE $\frac{1}{4}$				NW $\frac{1}{4}$				SW $\frac{1}{4}$				SE $\frac{1}{4}$				TOTAL ACRES
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
30	25	19											25	29			1		55
31	25	19		1			36	33	1	2									70
																	128		

TESTED DIVERSION RATES

Maximum G.P.M. _____ (c.f.s. _____) Normal G.P.M. 567 (c.f.s. 1.26)

SCANNED

FOR D.W.R. USE ONLY

WATER RESOURCES RECEIVED

Year of Record 1993 Extension of time needed: Yes No Attached? Yes No

AF Applied = 2200 hrs. x 567 g.p.m. x $\frac{4.419}{24 \times 1000}$ = 230 AF

JUN 29 2015

"Approved" land irrigated 128 acres, with 230 AF = 1.80 AF/acre
128 acres x 1.5 A.F. per acre = 192 A.F.

KS DEPT. OF AGRICULTURE

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HAYS000986

Perfected Rate 570 g.p.m. (1.39 c.f.s.) Perfected Quantity 192 A.F. AF

21731

DWR-101 (Rev. 03/29/91)

Completed by 6/10/95 6/10/95 6/10/95

MICROFILMED

GENERAL INFORMATION ON IRRIGATION SYSTEM:

Center Pivot

Manufacturer ZIMMATIC Model Serial No. 241516
Drive: Water Electric Length of Pivot Arm Acres Irr. 128 (ASCs) + MR about
Design Pressure-Pivot 158 p.s.i. Operating Pressure-Pivot 58 p.s.i.
Is there an end gun? Yes No Is end gun operating during test? Yes No
End Gun Model P85 Sprinkler Rating g.p.m.

Gravity Irrigation

Items to be shown on sketch of system: 1) layout of pipe, 2) sizes of pipe, 3) type of pipe, 4) set which was tested, 5) test location and 6) hydrant location

Description

Other Type

Manufacturer Model Serial No.

Unusual condition/other information

POWER UNIT INFORMATION:

Manufacturer FORD Model C56-649+607-2B HP
Serial No. 37111326 Fuel Not Gas + LP Rated RPM

PUMP INFORMATION:

Manufacturer JOHNSTON Model No. Stages
Serial No. CF 21243 Size/Type 8" TURBINE Rated RPM

GEAR HEAD INFORMATION:

Manufacturer Randolph Model
Serial No. 2183 Drive 2 1/2 Angl Ratio 10X5

WELL INFORMATION:

Date Drilled Original Depth 46 ft. Static Water Level When Drilled 6 ft. *FROM PRIOR TEST FORM*
Length of time well has operated tested prior to inspection 7 days hours *Ben only to Setup this year*
Is measurement tube required? Yes No Is measurement tube present? Yes No
Depth to water ft. below LSD.

ADDITIONAL REQUIREMENTS:

Is a flow meter required? Yes No Make of flow meter Sigmat
Serial No. 902390 Size 8" Flow meter conversion factor x1000
Is the meter installed properly? Yes No 1st Vertical Column pipe in pivot
Distance front and back of meter: +5' Front +5' Back
Flow meter units: Acre-feet Acre-inches Gallons Other
Is check valve present? Yes No
Is low pressure drain present? Yes No
Is injection port present? Yes No
Was a Plant Health Chemigation Report completed? Yes No

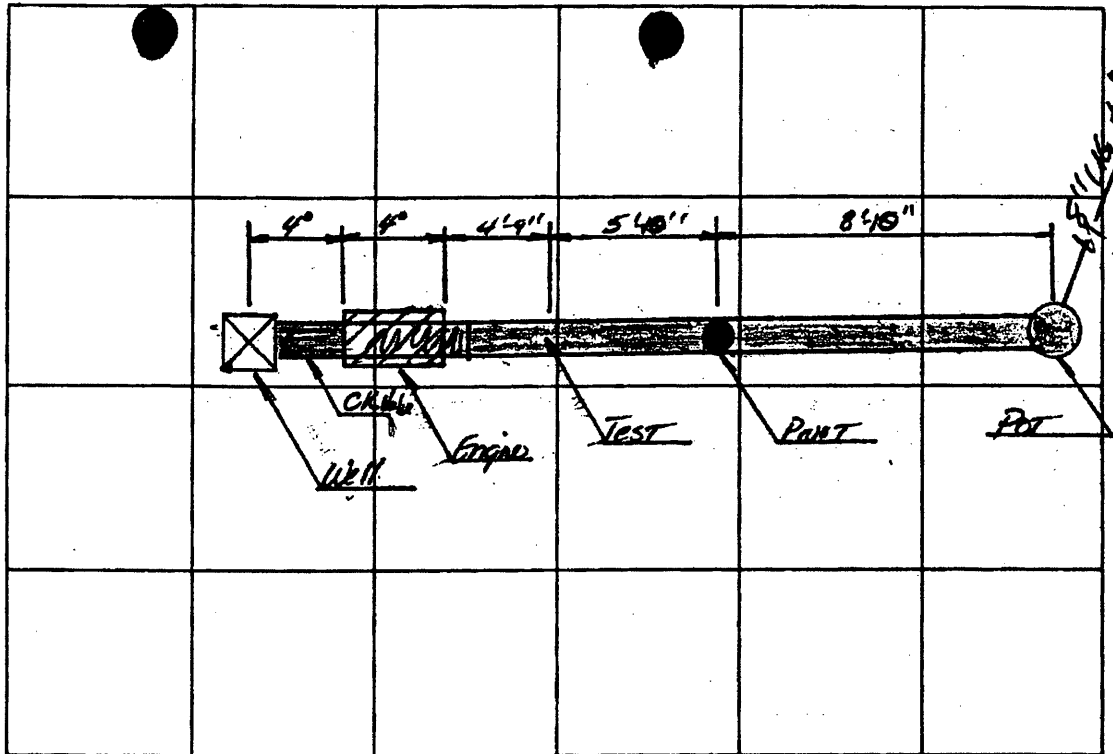
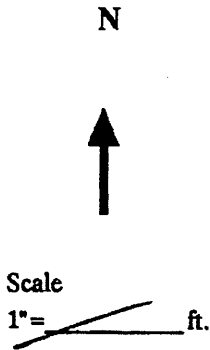
SCANNED

WATER RESOURCES HAYS000987

RECEIVED

File No. 21731

JUN 29 2015



TEST OF DIVERSION RATE: Location of test 15' EAST OF ENGINE
 Pipe Diameter (I.D.) 8.75 inches

Test No. 1 — Normal Conditions
 R.P.M. POWER UNIT 1890 calc.
 R.P.M. PUMP UNIT 1575 meas'd
 Pressure at Pump 58 psi

Test No. 2 — Maximum Conditions
 R.P.M. POWER UNIT _____
 R.P.M. PUMP UNIT _____
 Pressure at Pump _____ psi

Jacuzzi Meter Test Meter Identification No. #3

Area Constant $K = 2.45 \times I.D.^2 =$ 166.753125 $Q (gpm) = VK$

	Velocity (fps)	
1.	<u>2.9</u>	<u>3.2</u>
2.	<u>3.0</u>	<u>3.2</u>
3.	<u>3.3</u>	<u>3.4</u>
4.	<u>3.4</u>	<u>3.6</u>
5.	<u>3.6</u>	<u>3.7</u>
6.	<u>3.6</u>	<u>3.7</u>
7.	<u>3.6</u>	<u>3.5</u>
8.	<u>3.4</u>	<u>3.6</u>
9.	<u>3.3</u>	<u>3.5</u>
10.	<u>3.1</u>	<u>3.3</u>
Total	<u>33.2</u>	<u>34.7</u>
Avg.	<u>3.32</u>	<u>3.47</u>
G.P.M.	<u>554</u>	<u>579</u>

Average
567 GPM
Both wells Running AT TEST TIME.

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

Propeller Meter Test Manufacturer SIGNET Model _____ Serial No. 302890
 Meter Diameter _____ inches

Ending _____ gal.	<i>NOT ABLE TO USE OWNERS METER</i>	Ending _____ gal.
Beginning _____ gal.	<i>SEE NOTES</i>	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).

SCANNED

TABULATION OF WATER USE DETERMINED AT THE TIME OF THIS REPORT:

21731 Year	Hours Pumped (hr)	Reported Pumping Rate (gpm)	Water Used (AF)	Acres Irrigated
75	1188	1100	-	507 <i>combined of others</i>
76	-	-	-	-
77	922	500	-	639 <i>combined of others</i>
78	-	-	-	-
79	1224	750	-	267 "
80	1416	750	-	267 "
81	1152	750	-	267 "
82	-	-	-	-
* 83	2200	621	-	128
84	1750	825	-	130
85	1850	-	-	130

Indicate Year of Record with (*)

Source of Information Water Use Reports / Probe test

Crops Irrigated: this year CORN

year of record Unknown

FUEL RECORDS: (Complete only if water use information is not available)

Electricity

Supplier _____

Meter Manufacturer _____ Type _____ Serial No. _____

K _____ watt/rev r _____ revolutions t _____ seconds

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

Other Fuels

Type _____

Supplier _____

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

How was the test volume determined? Always reported as questionable - Mr Ebert says 128 is right.

REMARKS: Landowner change per farm manager's instruction (Mr. Craig Ebert) Owner's meter is Sight as indicated. Design of meter negates availability of comparing accuracy to our test. Large multiplier with no calibrating hash marks or rate of flow dial prevent timing meter. No place to begin and end time test within 5 to 10 second accuracy

Person present at test Greg EBERT

(Name)

farm manager

(relationship)

Water Use Correspondent Same as Listed

(Name)

(Address)

(phone number)

Conducted by Kevin Kirkpatrick

Date 2-23-95

Approved by Stuart M Hutchman, PE

(Signature)

(Title)

Date 2-27-95

WATER RESOURCES RECEIVED

HAYS000989

File No. 21,731

10-21

EXHIBIT F

DIVISION OF WATER RESOURCES—KANSAS STATE BOARD OF AGRICULTURE
FIELD INSPECTION REPORT

- Partial
- Full
- Re-Test

Test 1 of 7 Diversion points
 (Circle 2, A WELL)
 Application No. 21731 Date 10/1/86 Firm/Field Office Pumping Plant Testing Inc
 Inspector Klassen/Ewert

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

Current Landowner Connecticut General Life Insurance Co. & 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: 1 well NW 1/4, NE 1/4, NW 1/4 Sec. 31, T. 25, R. 19
 Approximately _____ ft. North and _____ ft. West of SE corner of Sec. _____

Actual Point of Diversion: 1 well NW 1/4 NE 1/4 NW 1/4 Sec. 31, T. 25, R. 19
 Approximately 5125 ft. North and 3920 ft. West of SE corner of Sec. 31

How were distances determined? By scaling off aerial photo, scale from original survey plats

"Approved" Quantity 1090 ac-ft "Approved" Diversion Rate 3900 g.p.m. (8.69 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	NE 1/4				NW 1/4				SW 1/4				SE 1/4				TOTAL ACRES	
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE		
30	25	19															23	26	1	50
31	25	19	27	34	38	27	36	28	38	39	34	37	13	6	40	35	17	39	488	
32	25	19							1			25	23						49	
36	25	20				7									20			7	34	
																			621	

LAND IRRIGATED—YEAR OF RECORD 1983

S.	T	R	NE 1/4				NW 1/4				SW 1/4				SE 1/4				TOTAL ACRES	
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE		
30	25	19																25	29	55
31	25	19		1			36	33	1	2										73
																			128	

APPLICATION OF WATER: **RECEIVED**
 Year of Record 1983 Hours Pumped 2200 or Quantity 251.6 AF

Normal Operating C.P.M. 621 **AUG 3 1985** c.f.s. 1.38

Maximum Operating C.P.M. _____ c.f.s.

Year of Record 1983 Extension of time requested: Yes No

Total No. of Hours on land covered by this application 2200

Ac. Ft. Applied = $\frac{2200 \text{ hrs.} \times 567 \text{ g.p.m.} \times 4.419}{24 \times 1000} = 230 \text{ AF}$

Acres of "Approved" Land irrigated 128

Ac. Ft. on "Approved" Land 230 (1.79 Ac. Ft./Ac.)

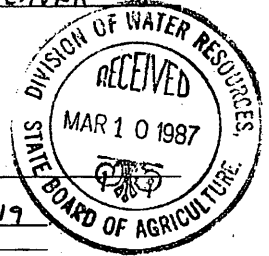
Ac. Ft. Used on "Approved" Land at "Approved" Rate or Less 230

Proration Calculations 128 acres x 1.5 AF per acre = 192 AF

Perfected Rate 625 g.p.m. Perfected Quantity 192 AF

DWR-101 21731

completed by Douglas E. Bunn
3-15-85



WATER RESOURCES RECEIVED

JUN 29 2015

KS DEPT OF AGRICULTURE

MICROFILMED

SCANNED

MAY 5000997

GENERAL INFORMATION ON IRRIGATION SYSTEM:

Center Pivot High Pressure Low Pressure

Manufacturer Zimatic Model 310 Serial No. 3189

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 Ferd Model No. 300 HP _____

Serial No. 13812 T-4-T6 Fuel Natural Gas Rated RPM _____

PUMP INFORMATION:

Manufacturer Johnston Model No. - Rated RPM _____

Serial No. CF 21243 Type Vertical Turbine No. stages -

GEAR HEAD INFORMATION:

Manufacturer Randolph Model No. G 80

Serial No. 84561 Drive Right Angle Ratio 6:5

WELL INFORMATION:

Date Drilled _____ Original Depth *46' ft. Static Water Level When Drilled *6' ft.

Tape Down Possible? yes 12' Water Level Measurement Tube? no

Measuring Point 0 ft. above or below L.S.D. * From 1975 water Use Report

ADDITIONAL REQUIREMENTS:

Meter Required? no Make of Meter _____

Meter Model No. _____ Serial No. _____ Size _____ KS DEPT OF AGRICULTURE

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

21731 chemicals are injected into system, please attach sketch of system. Page 29 of 96

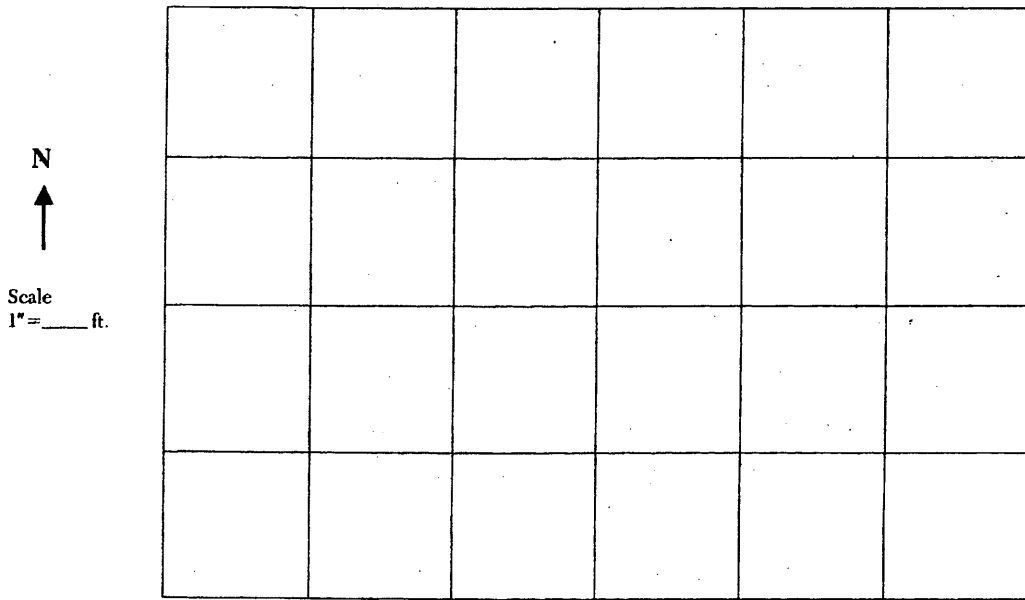
WATER RESOURCES RECEIVED

JUN 29 2015

HAYS000998

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 Horizontal pipe between pump and pivot
 Pipe Diameter (I.D.) 7 3/4 inches

Test No. 1—Normal Conditions

R.P.M. POWER UNIT 2028
 R.P.M. PUMP UNIT 1690
 Pressure at Pump 78 psi

Test No. 2—Maximum Conditions

R.P.M. POWER UNIT _____
 R.P.M. PUMP UNIT _____
 Pressure at Pump _____ psi

Jacuzzi Meter Test

Meter Identification No. _____

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

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

Velocity (fps)
 1. _____
 2. _____
 3. _____
 4. _____
 5. _____
 6. _____
 7. _____
 8. _____
 9. _____
 10. _____

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AUG 21 1995

G.P.M. _____
FIELD OFFICE
DIVISION OF WATER RESOURCES
STAFFORD

Propeller Meter Test

Manufacturer _____ Model _____ Serial No. _____

Meter Diameter _____ inches

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

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

WATER RESOURCES RECEIVED

JUN 29 2015

KS DEPT OF AGRICULTURE

HAYS000999

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 = $\frac{kw-hr}{rate}$ = _____

Other Fuels Type Natural Gas Supplier Kansas - Nebraska

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

How was the test volume determined? Not Determined Because One Meter Used For Many Wells

TABULATION OF WATER USE:

Year	Hours Pumped (hr)	Tested Pumping Rate (gpm)	Water Used (AF)	Acres Irrigated
1975	1188	1100		507
1976	NO DATA	AVAILABLE		
1977	922	500		639
1978	NO DATA	AVAILABLE		
1979	1224	750		267
1980	1416	750		267
1981	1152	750		267
1982				
* 1983	2200 [‡]	621 [*]		128 [*]
1984	1750 [‡]	825 [‡]		130 [‡]
1985	1850 [*]			130 [*]
1986		621 [*]		
* From Test				
‡ From Water Use Reports Sent By Jerry Weaver of Agri Affiliates				

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

Crops Irrigated: this year alfalfa Year of record Alfalfa

REMARKS: _____

WATER RESOURCES RECEIVED

JUN 29 2015

KS DEPT OF AGRICULTURE

Person present at test Kent Naber Irrigation Manager

Water Use Correspondent Lyle Kolbeck Spearville, KS 67876 (316) 385-2803

Conducted by Daniel Klassen Date 10-14-86

Approved by [Signature] Date 3/7/87

HAYS001000

APPLICATION NO: 21731 NAME: Connecticut General Life Ins.

COLLINS METER TEST

Collins Meter No. 1-83 Meter Calibration Factor .9559
 Pipe Inside Diameter (inches) 7 3/4 Flow Rate Factor 145.4
 Test Pressure (psi) 78 Test RPM, Pump 1690
 Description of Test Location Horizontal pipe between pump and pivot

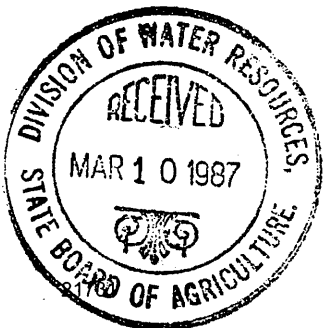
TEST DATA: Q Check, Initial 4.70 Reversed 4.69
 Velocity Velocity
 Meter Setting From Left Side of Pipe Right Side of Pipe
 Center of Pipe (or Front Side if (or Back Side if
 Vertical Test) Vertical Test)

Meter Setting	Left Side of Pipe (or Front Side if Vertical Test)	Right Side of Pipe (or Back Side if Vertical Test)
<u>1 1/6</u>	<u>4.61</u>	<u>4.63</u>
<u>2 3/4</u>	<u>4.52</u>	<u>4.46</u>
<u>3 1/6</u>	<u>4.50</u>	<u>4.10</u>

Average Velocity of Water = Sum of Vel. \div 12 = 4.47

Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 4.47 x .9559 = 4.27

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 4.27 x 145.4 = 621 GPM



WATER RESOURCES RECEIVED

PUMPING PLANT TESTING, INC. JUN 29 2015

Reviewed By: [Signature]
 RECEIVED
 Professional Engineer

KS DEPT OF AGRICULTURE

AUG 31 1985

HAYS001001

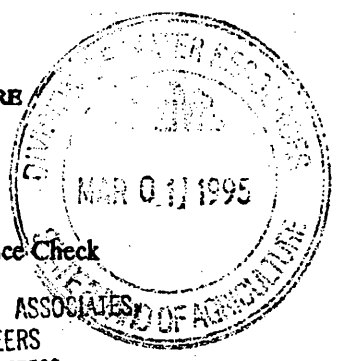
MICROFILMED

SCANNED

EXHIBIT
21731
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DIVISION OF WATER RESOURCES — KANSAS STATE BOARD OF AGRICULTURE

FIELD INSPECTION REPORT



Field Office No. 02
G.M.D. No. 05

Full
 Partial
 Compliance Check

Test 2 of 7 diversion points. County EDWARDS
(Circle 2, BWELL)

EVANS-BIERLY-HUTCHISON & ASSOCIATES
CONSULTING ENGINEERS
GREAT BEND, KANSAS 67530

File No. 21731 Inspection Date 2-23-95 Firm/Field Office _____

Current Landowner CITY OF HAYS, KS Phone No. (913) 628-7350

Address Leo Wellbrock, Public Works Director 16th Main, Hays KS 67601

Additional landowners and addresses identified in remarks section.

Water Use () Domestic () Industrial (X) Irrigation () Municipal () Hydraulic Dredging
Classification: () Recreation () Stockwatering () Water Power () Artificial Recharge () Contamination Remediation
Source: (X) Groundwater () Surface Water Basin/Stream ARKANSAS RIVER

Authorized Point of Diversion: SW, SE, SW - 1 well Sec. 30, T. 25 R. 19W, ID No. 03
Approximately _____ ft. North and _____ ft. West of SE corner of Sec. 30

Actual Point of Diversion: SW, SE, SW Sec. 30, T. 25 R. 19W
Approximately 380 ft. North and 3785 ft. West of SE corner of Sec. 30

How were distances determined? SCANNING OFF RECORD, FIELD INSPECTION

"Approved" Quantity 1090 AF "Approved" Diversion Rate 3900 g.p.m. (8.69 c.f.s.)

Priority Date 2-2-94 Approval Date 2-27-76 Perfection Date 12-31-81

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	NE 1/4				NW 1/4				SW 1/4				SE 1/4				TOTAL ACRES
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
30	25	19W																	50
31	25	19W	27	34	38	27	36	28	38	37	34	37	13	6	40	35	17	39	488
32	25	19W							1				25	23					49
36	25	20W				7									20			7	34
																			621

LAND IRRIGATED — YEAR OF RECORD 1980

S	T	R	NE 1/4				NW 1/4				SW 1/4				SE 1/4				TOTAL ACRES
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
30	25	19											25	29			1		55
31	25	19		1			36	33	1	2									73
																			128

WATER RESOURCES RECEIVED

TESTED DIVERSION RATES

Maximum G.P.M. 450 (c.f.s. 1.00) Normal G.P.M. 450 (c.f.s. 1.00)

JUN 29 2015

FOR D.W.R. USE ONLY

Year of Record 1980 Extension of time needed: Yes No Attached? Yes No

AF Applied = 1416 hrs. x 450 g.p.m. x $\frac{4.419}{24 \times 1000}$ = 118 AF

"Approved" land irrigated 128 acres, with 118 AF = 0.92 AF/acre

148 A.F. (well NWNE NW) + 117 A.F. (well SWSE SW) = 265 A.F.

128 x 1.5 A.F. per acre = 192 A.F.

RECEIVED

HAYS000980

Perfected Rate 450 g.p.m. (c.f.s. 1.00) Perfected Quantity 118 AF

Completed by Douglas E. Busa

2-16-95

MICROFILMED
SCANNED

GENERAL INFORMATION ON IRRIGATION SYSTEM:

Center Pivot

Manufacturer ZIMMATIC Model — Serial No. 241516
Drive: Water Electric Length of Pivot Arm — Acres Irr. 128 (ASCS) + MR Ebb
Design Pressure-Pivot 258 p.s.i. Operating Pressure-Pivot 58 p.s.i.
Is there an end gun? Yes No Is end gun operating during test? Yes No
End Gun Model P85 single sprinkler Rating — g.p.m.

Gravity Irrigation

Items to be shown on sketch of system: 1) layout of pipe, 2) sizes of pipe, 3) type of pipe, 4) set which was tested, 5) test location and 6) hydrant location

Description —

Other Type —

Manufacturer — Model — Serial No. —

Unusual condition/other information —

POWER UNIT INFORMATION:

Manufacturer FORD Model CS6-449R-6003-C HP —
Serial No. 12177 K13TR Fuel Nat Gas or LP Rated RPM —

PUMP INFORMATION:

Manufacturer Johnson Model — No. Stages —
Serial No. No plate Size/Type 8" Turbine Rated RPM —

GEAR HEAD INFORMATION:

Manufacturer Johnson Model H60
Serial No. 71521 Drive RT Angle Ratio 6X5

WELL INFORMATION:

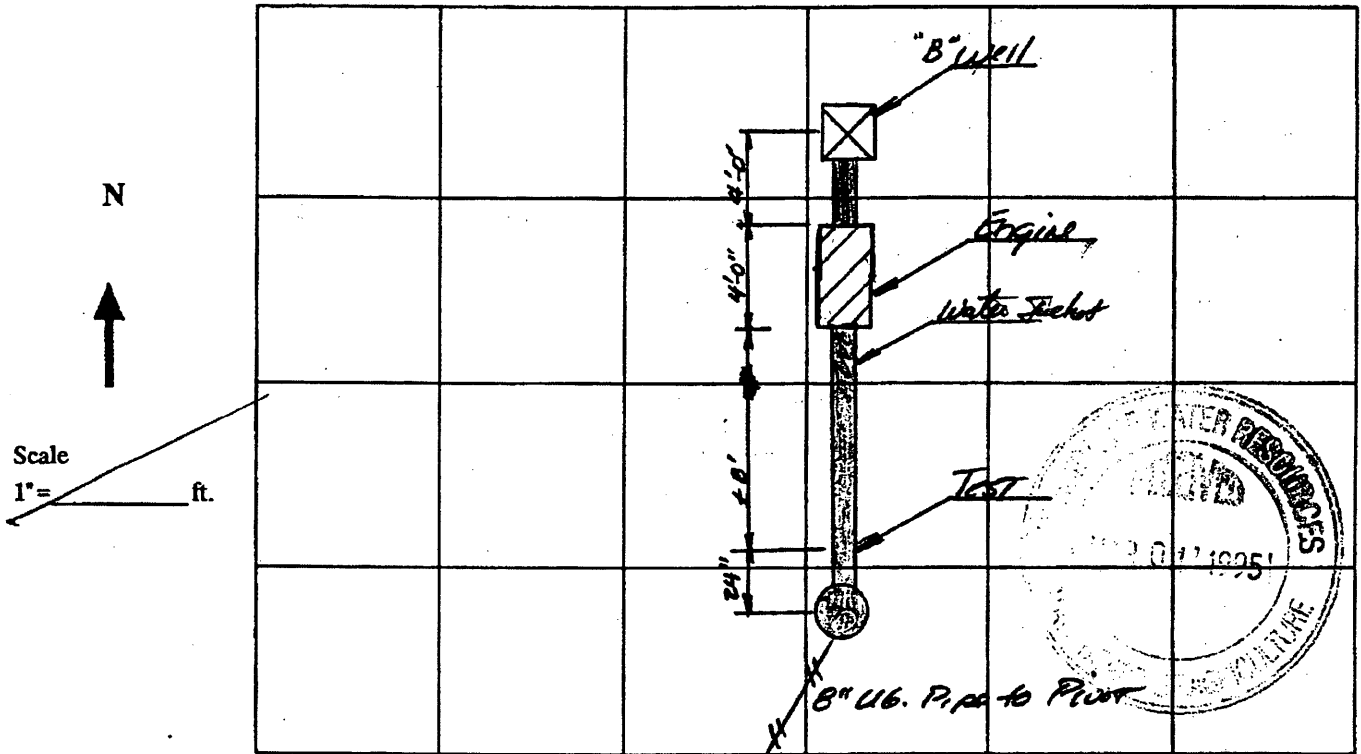
Date Drilled NA Original Depth — ft. Static Water Level When Drilled — ft.
Length of time well has operated rested prior to inspection 7 days hours *Run to pump for test. this year*
Is measurement tube required? Yes No Is measurement tube present? Yes No
Depth to water NA ft. below LSD.

ADDITIONAL REQUIREMENTS:

Is a flow meter required? Yes No *BY 6110 5* Make of flow meter SIGNET
Serial No. 302390 Size 8" Flow meter conversion factor X1000
Is the meter installed properly? Yes No *In vertical column pipe of print*
Distance front and back of meter: ±5' front and ±5' back
Flow meter units: Acre-feet Acre-inches Gallons Other —
Is check valve present? Yes No
Is low pressure drain present? Yes No Is vacuum breaker present? Yes No
Is injection port present? Yes No Is injection system being operated? Yes No
Was a Plant Health Chemigation Report completed? Yes No

WATER RESOURCES RECEIVED HAYS000981

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



TEST OF DIVERSION RATE: Location of test ± 24" North of Pot
Pipe Diameter (I.D.) 8.125" inches

Test No. 1—Normal Conditions
R.P.M. POWER UNIT 1798 calc.
R.P.M. PUMP UNIT 1490 meas'd
Pressure at Pump ± 30 psi

Test No. 2—Maximum Conditions
R.P.M. POWER UNIT 1922 calc.
R.P.M. PUMP UNIT 1602 meas'd
Pressure at Pump ± 56 psi

Helper well set at 1575 all tests

□ Jacuzzi Meter Test Meter Identification No. #3

Area Constant K = 2.45 x I.D.² = 166.753125 Q (gpm) = VK

	Velocity (fps)	
1.	<u>2.2</u>	<u>2.2</u>
2.	<u>2.4</u>	<u>2.4</u>
3.	<u>2.5</u>	<u>2.6</u>
4.	<u>2.0</u>	<u>2.6</u>
5.	<u>3.0</u>	<u>2.9</u>
6.	<u>2.9</u>	<u>2.9</u>
7.	<u>2.9</u>	<u>2.9</u>
8.	<u>2.6</u>	<u>2.6</u>
9.	<u>2.6</u>	<u>2.5</u>
10.	<u>2.5</u>	<u>2.3</u>
Total	<u>26.6</u>	<u>25.9</u>
Avg.	<u>2.66</u>	<u>2.59</u>
G.P.M.	<u>444</u>	<u>432</u>

AVERAGE ALONE
438 G.P.M.

	Velocity (fps)	
1.	<u>2.2</u>	<u>2.5</u>
2.	<u>2.4</u>	<u>2.4</u>
3.	<u>2.7</u>	<u>2.7</u>
4.	<u>3.0</u>	<u>3.0</u>
5.	<u>3.1</u>	<u>3.0</u>
6.	<u>2.8</u>	<u>2.8</u>
7.	<u>2.8</u>	<u>2.8</u>
8.	<u>2.8</u>	<u>2.8</u>
9.	<u>2.7</u>	<u>2.6</u>
10.	<u>2.5</u>	<u>2.4</u>
Total	<u>27.0</u>	<u>27.0</u>
Avg.	<u>2.70</u>	<u>2.70</u>
G.P.M.	<u>450</u>	<u>450</u>

Average of Helper
450 G.P.M.

WATER RESOURCES RECEIVED

JUN 29 2015

□ Propeller Meter Test Manufacturer Sigant Model - Serial No. 302390
Meter Diameter _____ inches

KS DEPT OF AGRICULTURE

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

NOT ABLE TO USE
SEE NOTES.

RECEIVED

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

HAYS000982

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

TABULATION OF WATER USE DETERMINED AT THE TIME OF THIS REPORT:

21731 Year	Hours Pumped (hr)	Reported Pumping Rate (gpm)	Water Used (AF)	Acres Irrigated
1975	1188	1100		507 (total for entire app)
76				
77	922	500		639 (total base field combined Mothens)
78				
79				
* 80	1416	650		120
81				
82				
83	NOT USED			
84	"			
85	"			

Indicate Year of Record with (*) Source of Information Water Use Reports

Crops Irrigated: this year CORN year of record Unknown

FUEL RECORDS: (Complete only if water use information is not available)

Electricity Supplier _____

Meter Manufacturer _____ Type _____ Serial No. _____

K _____ watt/rev r _____ revolutions t _____ seconds

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

Other Fuels Type _____ Supplier _____

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

How was the test volume determined? Acres reported acreage available. Use AFCS as per Mr Ebert

REMARKS: Field inspection form for this file by Pumping Plant Testing dated 10-14-86 for this well is included in this file. No test was done at that time due to lack of equipment. Owner's meter is Signet brand and has totalizer only. Due to lack of incremental marks, it is not possible to run a comparison test on this meter at this time. Manager Mr. Greg Ebert, said to change ownership to City of Hays, Kansas since the sale of this land is final. He has an interest in this property so is qualified to make that statement. They plan on operating as in the past for some time and so the Water Use Reports should be sent to the current address on file for that purpose.

Person present at test GREG EBERT (OWN large multiple) tenant
(Name) (relationship)

Water Use Correspondent Same as Listed - Continue reports as in past
(Name) (Address) (phone number)

Conducted by Kevin Kerpatek Date 2-23-95

Approved by Stuart M Hutchison P.E. Date 2-27-95
(Signature) (Title)

WATER RESOURCES RECEIVED


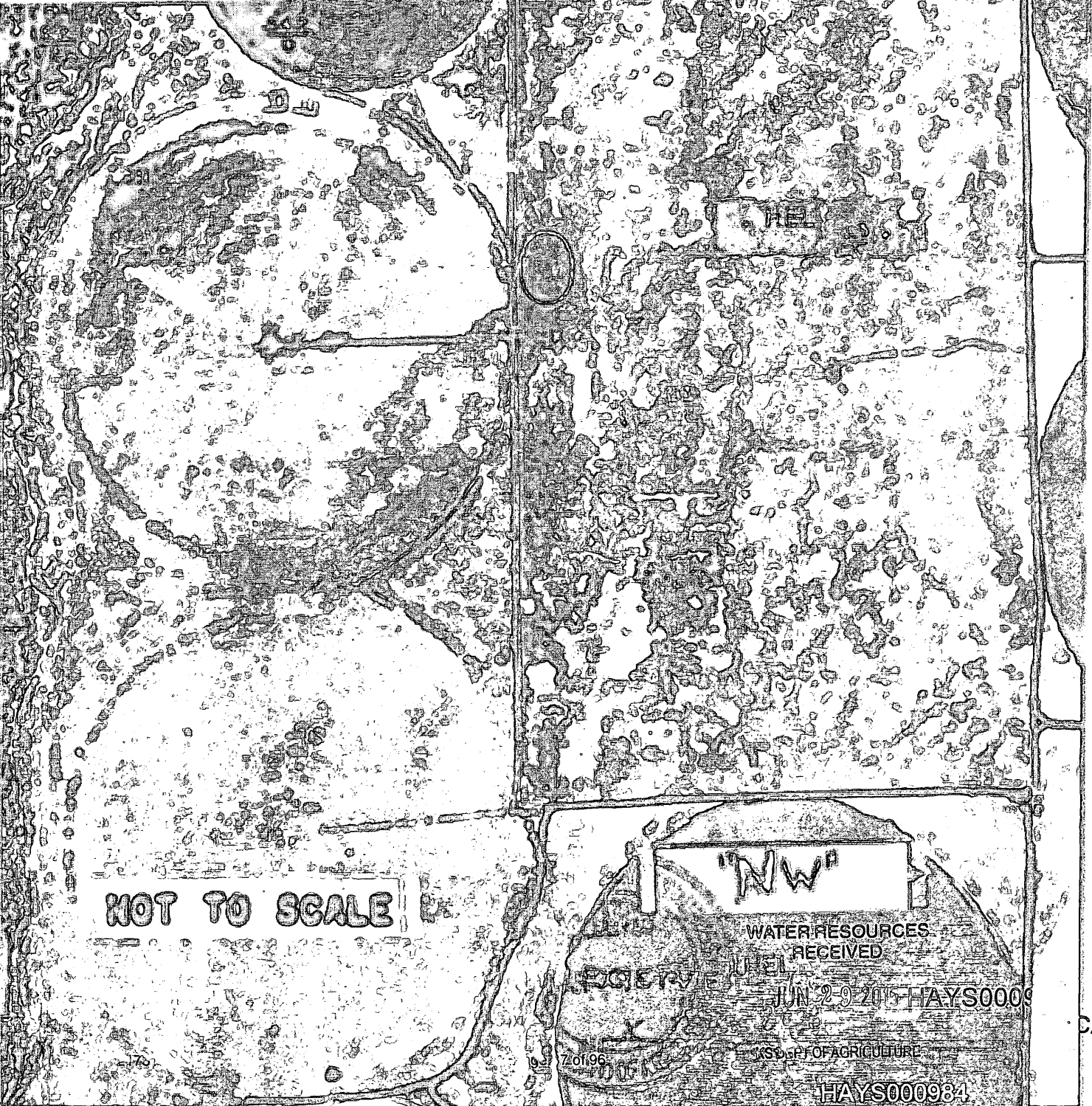
HAYS000983

30-20-57

THIS MAP SHOWS A CORNER
 OF THE
 FILE NO. 21731

LEGEND

BOUNDARY OF	—
ROAD	—
RAILROAD	—
WATER	—
...	...

NOT TO SCALE

'NW'

WATER RESOURCES RECEIVED

JUN 29 2015 HAYS000934

KS DEPT OF AGRICULTURE

HAYS000934

CANNE

Transmittal

21731

Date: Feb. 27, 1995

Project: FIELD INSPECTION REPORTS
File No. 21731

To: Larry Sheets
Water Rights Section
Division of Water Resources
901 S Kansas Ave. 2nd Floor
Topeka, Kansas 66612-1283

Gentlemen: We are transmitting the following:

Description:	Copies	Dated
Field Inspection Report	ID 02	2-23-95
Field Inspection Report	ID 03	2-23-95

Remarks:

This property has recently changed hands and these tests were needed to complete some of the water right certification.

Copies to: City of Hays, Leo Wellbrock
Stafford Field Office

By: *Stuart M. Hutchison*
Stuart M. Hutchison, P.E.

WATER RESOURCES
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JUN 29 2015
KS DEPT OF AGRICULTURE



Sheet _____ of _____

EBH
& Associates
Consulting Engineers

RECEIVED SCANNED
Evans • Bierly • Hutchison & Associates, P.A. 000985
1105 Williams 37 1995 Great Bend, Kansas
(316) 793-8411 67530
(316) 793-8413 - Fax
Page 38 of 38 FIELD OFFICE
DIVISION OF WATER RESOURCES
STAFFORD
MICROFILMED

- Partial
- Full
- Re-Test

Test 3 of 7 Diversion points
 (Circle 3, A Well)
 Application No. 21731 Date 10/1/86 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 Insurance Co. % 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: 1 well NE westside of NE 1/4 SW 1/4 Sec. 31, T. 25, R. 19
 Approximately _____ ft. North and _____ ft. West of SE corner of Sec. _____

Actual Point of Diversion: 1 well SW 1/4 NE 1/4 SW 1/4 Sec. 31, T. 25, R. 19
 Approximately 1925 ft. North and 3910 ft. West of SE corner of Sec. 31
 How were distances determined? By Scaling off Aerial Photo, Scale From Original Survey Plats

"Approved" Quantity 1090 ac-ft "Approved" Diversion Rate 3900 g.p.m. (8.69 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	NE 1/4				NW 1/4				SW 1/4				SE 1/4				TOTAL ACRES
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
30	25	19										23	26			1		50	
31	25	19	27	34	38	27	36	28	38	39	34	37	13	6	40	35	17	39	488
32	25	19							1			25	23					49	
36	25	20				7									20		7	34	
																		621	

LAND IRRIGATED—YEAR OF RECORD 1983

S	T	R	NE 1/4				NW 1/4				SW 1/4				SE 1/4				TOTAL ACRES
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
31	25	19			9					30	35	40	40	27	36		25	12	254
36	25	20				1.5										10		1.5	13
																		267	

APPLICATION OF WATER:

Year of Record 1983 Hours Pumped 2200 or Quantity 381.2 ac-ft
Both wells pumping together (combined flowrate)
 Normal Operating G.P.M. 941 Equiv. c.f.s. 2.1
Individual
 Maximum Operating G.P.M. 523 Equiv. c.f.s. 1.1

FOR D.W.R. USE ONLY
 DIVISION OF WATER RESOURCES
 STAFFORD

Year of Record 1983 Extension of time requested: Yes _____

Total No. of Hours on land covered by this application 2200

Ac. Ft. Applied = $2200 \text{ hrs.} \times 392 \text{ g.p.m.} \times \frac{4.419}{24 \times 1000} = 159 \text{ AF}$

Acres of "Approved" Land irrigated 211

Ac. Ft. on "Approved" Land 125 (0.59 Ac. Ft./Ac.)

Ac. Ft. Used on "Approved" Land at "Approved" Rate or Less 125

Proration Calculations 267 acres x 0.79 percent of approved 445000/211 =

Perfected Rate 525 g.p.m. Perfected Quantity 125 AF

Completed by Douglas E. Bush
 3-16-95



WATER RESOURCES RECEIVED

JUN 29 2015

SCANNED KS DEPT OF AGRICULTURE

GENERAL INFORMATION ON IRRIGATION SYSTEM:

Center Pivot High Pressure Low Pressure
 Manufacturer Zimmatic Model notag Serial No. _____
 Drive Electric Length of Pivot Arm 15 TOWERS -
 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. THIS SYSTEM HAS 15 TOWERS AND CIRCLES
267 TOWERS - 2 TIMES THE SIZE OF A 'NORMAL'
CENTER PIVOT SYSTEM.

POWER UNIT INFORMATION:

Manufacturer Ford Model No. 300 HP _____
 Serial No. 11907 K-29-T6 Fuel Natural Gas Rated RPM _____

PUMP INFORMATION:

Manufacturer Jacuzzi Model No. 10MA Rated RPM _____
 Serial No. N2W24232X Type Vertical Turbine No. stages 6

GEAR HEAD INFORMATION:

Manufacturer U.S. Motors Model No. N5001522
 Serial No. R-955B-00-H-420 Drive Right Angle Ratio 6:5

WELL INFORMATION: NO RECORDS AVAILABLE ON WELL.

Date Drilled _____ Original Depth _____ ft. Static Water Level When Drilled _____ 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? No Check Valve? yes Low Pressure Drain? yes
 Vacuum Breaker? yes Arc these anti-pollution devices installed properly? yes
 If chemicals are injected into system, please attach _____ of system.

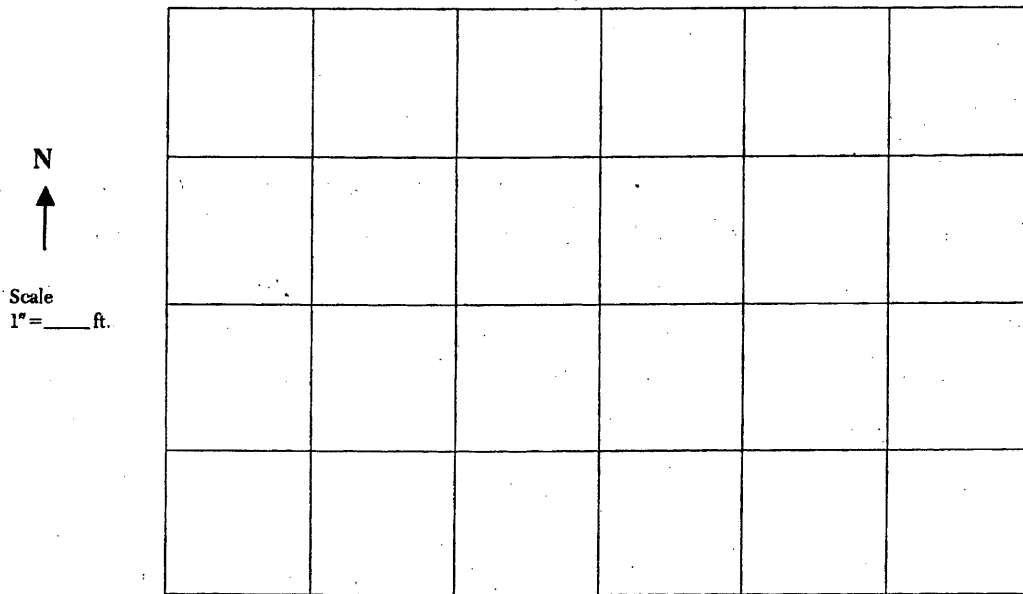
WATER RESOURCES
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SCANNED JUN 29 2015

KS DEPT OF AGRICULTURE

HAYS000945

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 riser and pivot
 Pipe Diameter (I.D.) 7 1/16 inches

Test No. 1—Normal Conditions BOTH WELLS PUMPING INTO ONE PIVOT
 R.P.M. POWER UNIT 2100
 R.P.M. PUMP UNIT 1750
 Pressure at Pump 86 psi

Test No. 2 WELL IN THIS APPLICATION - PUMPING INTO PIVOT BY ITSELF
~~Normal Conditions~~
 R.P.M. POWER UNIT 2114
 R.P.M. PUMP UNIT 1762
 Pressure at Pump 47 psi

Jacuzzi Meter Test

Meter Identification No. _____

Area Constant $K = 2.45 \times I.D.^2 =$ _____ $Q (gpm) = VK$

Velocity (fps)

1. _____
 2. _____
 3. _____
 4. _____
 5. _____
 6. _____
 7. _____
 8. _____
 9. _____
 10. _____

Total _____
 Avg. _____
 G.P.M. _____

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

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

WATER RESOURCES RECEIVED

JUN 29 2015

KS DEPT OF AGRICULTURE

HAYS000946

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 = $\frac{kw-hr}{rate}$ = _____

Other Fuels Type Natural Gas Supplier Kansas Nebraska

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

How was the test volume determined? Not Determined Because One Meter Used For Many Wells

TABULATION OF WATER USE:

Year	Hours Pumped (hr)	Tested Pumping Rate (gpm)	Water Used (AF)	Acres Irrigated
1975				
1976				
1977	897	750		639
1978				
1979				
1980	1416	400		140
1981				
1982		Not under normal conditions, only when pumping alone under low pressure		
* 1983	2200*	523*	212*	267*
1984	1750*	700		267*
1985	1850*	700		267*
1986		523*		

* From Test Data
 † From Water Use Reports Sent By Jerry Weaver of Agri Affiliates

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

Crops Irrigated: this year wheat Year of record ALFMA

REMARKS: WE ARE UNSURE AS TO WHAT THE ACTUAL ACRES ARE ON THIS CIRCLE ON THE ORIGINAL APPLICATION. ALL WE CAN OFFER IN SUPPORT OF OUR PLOT IS DATA FROM THE STAFFORD FILES SHOWING AN OLD 'MIDWEST LAND & CATTLE CO' PLOT FROM LATE '74 OR EARLY '75.

WATER RESOURCES RECEIVED

SCANNED JUN 29 2015

Person present at test Kent Naber (name) Irrigation Manager (relationship) KS DEPT OF AGRICULTURE
 Water Use Correspondent Lyle Kolbeck (name) Spearville, KS 67876 (address) (316) 385-2803 (phone number)
 Conducted by Daniel Klassen (signature) Date 10-14-86
 Approved by Kid J. W... (signature) P.E. Date 3/7/87 HAYS000947
 21731 Page 42 of 96

APPLICATION NO: 21731 NAME: Connecticut General Life Ins.

COLLINS METER TEST ON WELL SW NE SW 31-25-19, "A" WELL ON CIRCLE 3

Collins Meter No. 1-83 Meter Calibration Factor .9559
 Pipe Inside Diameter (inches) 7 1/6 Flow Rate Factor 143.0
 Test Pressure (psi) 47 Test RPM, Pump 1765
 Description of Test Location In horizontal pipe between riser and pivot

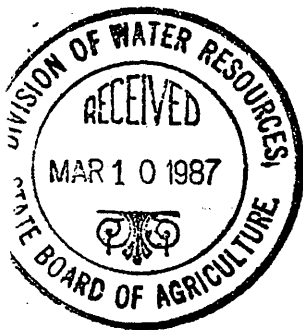
TEST DATA: Check, Initial 3.90 Reversed 3.90
 Meter Setting From Center of Pipe Velocity Left Side of Pipe (or Front Side if Vertical Test) Velocity Right Side of Pipe (or Back Side if Vertical Test)

Meter Setting From	Velocity	Velocity	Velocity	Velocity
Center of Pipe	Left Side of Pipe (or Front Side if Vertical Test)	Right Side of Pipe (or Back Side if Vertical Test)	Left Side of Pipe (or Front Side if Vertical Test)	Right Side of Pipe (or Back Side if Vertical Test)
<u>1 1/6</u>	<u>3.84</u>	<u>3.89</u>	<u>4.02</u>	<u>4.03</u>
<u>2 3/4</u>	<u>3.77</u>	<u>3.80</u>	<u>3.99</u>	<u>3.97</u>
<u>3 1/2</u>	<u>3.57</u>	<u>3.77</u>	<u>3.69</u>	<u>3.61</u>

Average Velocity of Water = Sum of Vel. \div 12 = 3.83

Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 3.83 x .9559 = 3.66

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 3.66 x 143.0 = 523 GPM



SCANNED

WATER RESOURCES RECEIVED

JUN 29 2015

KS DEPT OF AGRICULTURE

PUMPING PLANT TESTING, INC.

Reviewed By [Signature]
RECEIVED
 Professional Engineer

HAYS000948

AUG 31 1995

MICROFILMED

APPLICATION NO: 21731 NAME: Connecticut General Life Ins.

COLLINS METER TEST Both A and B wells (w NE SW 31-25-19 and NW NE SW 31-25-19) Pumping Together into Pivot 3

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

Pipe Inside Diameter (inches) 7 1/16 Flow Rate Factor 143.0

Test Pressure (psi) 86 Test RPM, Pump 1750 1759

Description of Test Location In horizontal pipe between riser and pivot

TEST DATA: Check, Initial 7.12 Reversed 7.13
 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)

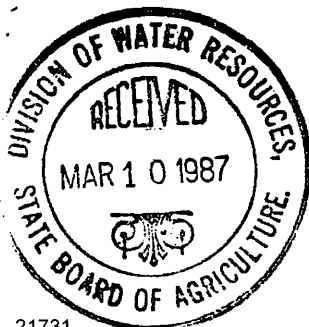
<u>1 1/16</u>	<u>6.98</u>	<u>7.03</u>	<u>7.09</u>	<u>7.02</u>
<u>2 3/4</u>	<u>6.80</u>	<u>6.85</u>	<u>6.96</u>	<u>6.83</u>
<u>3 1/2</u>	<u>6.73</u>	<u>6.49</u>	<u>6.75</u>	<u>6.43</u>

Average Velocity of Water = Sum of Vel. ÷ 12 = 6.83

Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 6.83 x .9635 = 6.58

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 6.58 x 143.0 = 941 GPM

SCANN



WATER RESOURCES RECEIVED

PUMPING PLANT TESTING, INC. JUN 29 2015

Reviewed By: [Signature]
 RECEIVED
 Professional Engineer

KS DEPT OF AGRICULTURE

HAYS000949

AUG 31 1995

MICROFILMED

EXHIBIT
10-2028

DIVISION OF WATER RESOURCES—KANSAS STATE BOARD OF AGRICULTURE
WELL INSPECTION REPORT

- Partial
- Full
- Re-Test

Test 4 of 7 Diversion points
 Well, Circle 3
 Application No. 21731 Date 10/1/86 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 Insurance Co. % 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: 1 well NW 1/4, NE 1/4, SW 1/4 Sec. 31, T. 25, R. 19
 Approximately _____ ft. North and _____ ft. West of SE corner of Sec. _____

Actual Point of Diversion: 1 well NW 1/4 NE 1/4 SW 1/4 Sec. 31, T. 25, R. 19
 Approximately 2460 ft. North and 3660 ft. West of SE corner of Sec. 31

How were distances determined? By scaling off Aerial Photo, Scale from Original Survey Plats

"Approved" Quantity 1090 ac-ft "Approved" Diversion Rate 3900 g.p.m. (8.69 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	NE 1/4				NW 1/4				SW 1/4				SE 1/4				TOTAL ACRES
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
30	25	19										23	26			1		50	
31	25	19	27	34	38	27	36	28	38	39	34	37	13	6	40	35	17	39	488
32	25	19							1			25	23					49	
36	25	20				7									20		7	34	
																		621	

LAND IRRIGATED—YEAR OF RECORD 1983

S	T	R	NE 1/4				NW 1/4				SW 1/4				SE 1/4				TOTAL ACRES
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
31	25	19			9				30	35	40	40	27	36		25	12		254
36	25	20				1.5									10			1.5	13
																		267	

APPLICATION OF WATER:

Year of Record 1983 Hours Pumped 2200 or Quantity 381.2

Combined Flowrate of both wells 2
 Normal Operating G.P.M. 944

Maximum Operating G.P.M. 732 Equiv. c.f.s. 1.6

FOR D.W.R. USE ONLY

Year of Record 1983 Extension of time requested: Yes No AUG 31 1995

Total No. of Hours on land covered by this application 2200

Ac. Ft. Applied = 2200 hrs. x 549 g.p.m. x $\frac{4.419}{24 \times 1000}$ = 220

Acres of "Approved" Land irrigated 211

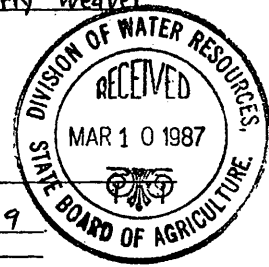
Ac. Ft. on "Approved" Land 177 (0.84 Ac. Ft./Ac.)

Ac. Ft. Used on "Approved" Land at "Approved" Rate or Less 177

Proration Calculations 267 acres x 0.79 percent of approved acres irr = 211 acres

Perfected Rate 735 g.p.m. Perfected Quantity 177 AF

DWR-101 21731 Completed by Doyle of 90 E. Bush
3-16-95



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 WATER RESOURCES RECEIVED
 JUN 29 2015
 KS DEPT OF AGRICULTURE

MICROFILMED

GENERAL INFORMATION ON IRRIGATION SYSTEM:

Center Pivot High Pressure Low Pressure
 Manufacturer Eimatic Model No tag Serial No. _____
 Drive Electric Length of Pivot Arm 15 TOWERS
 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. THIS IS AN EXCEPTIONALLY LARGE PIVOT SYSTEM - ABOUT TWICE THE ACRES OF A NORMAL PIVOT SYSTEM AT 267 TOWERS.

POWER UNIT INFORMATION:

Manufacturer Ford Model No. 300 HP. _____
 Serial No. 08949 L 23 TL Fuel Natural Gas Rated RPM _____

PUMP INFORMATION:

Manufacturer Jacuzzi Model No. N8C/T-703 Rated RPM _____
 Serial No. 467 22145 Type Vertical Turbine No. stages _____

GEAR HEAD INFORMATION:

Manufacturer Amacillo Model No. S 100
 Serial No. 88239 Drive Right Angle Ratio 4:3

WELL INFORMATION: NO WELL RECORDS AVAILABLE.

Date Drilled _____ Original Depth _____ ft. Static Water Level When Drilled _____ ft.
 Tape Down Possible? yes 20' 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 _____ KS DEPT OF AGRICULTURE
 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.

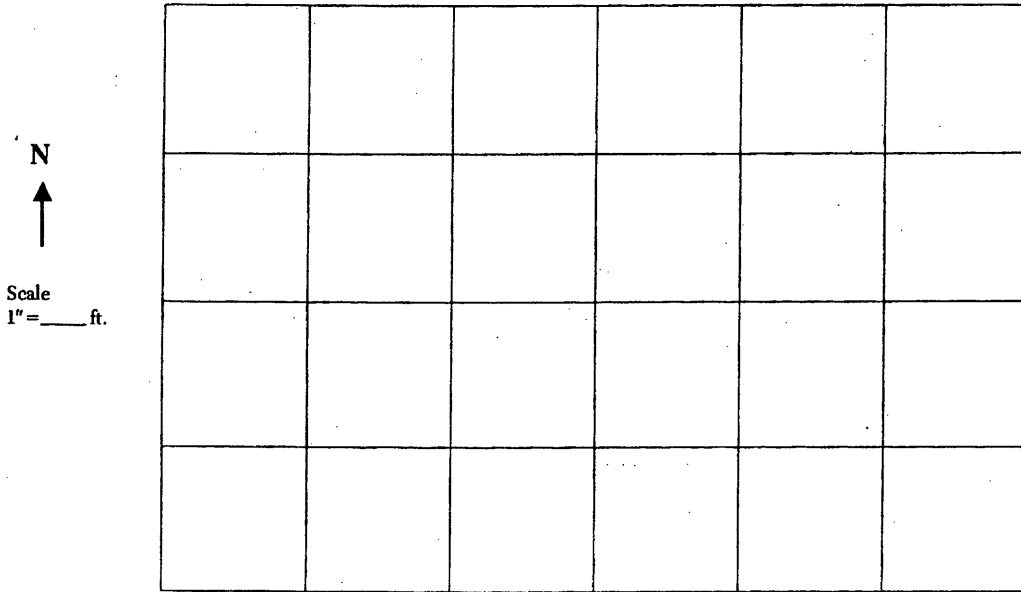
SCANNED

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HAYS000951

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 discharge head and pressure tank.
 Pipe Diameter (I.D.) 2 5/8 inches

BOTH WELLS PUMPING INTO ONE PIVOT
 Test No. 1—~~Normal Conditions~~
 R.P.M. POWER UNIT 2345
 R.P.M. PUMP UNIT 1759
 Pressure at Pump 86 psi

WELL IN THIS REPORT PUMPED INTO PIVOT BY ITSELF.
 Test No. 2—~~Maximum Conditions~~
 R.P.M. POWER UNIT 2345
 R.P.M. PUMP UNIT 1759
 Pressure at Pump 20 psi

Jacuzzi Meter Test

Meter Identification No. _____

Area Constant $K = 2.45 \times I.D.^2 =$ _____ $Q \text{ (gpm)} = VK$

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

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

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AUG 31 1995

FIELD OFFICE
 DIVISION OF WATER RESOURCES
 STAFFORD

SCANNED

Propeller Meter Test

Manufacturer _____ Model _____ Serial No. _____

Meter Diameter _____ inches

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

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

WATER RESOURCES
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 HAYS000952

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 = $\frac{kw-hr}{rate}$ = _____

Other Fuels Type Natural Gas Supplier Kansas-Nebraska

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

How was the test volume determined? Not Determined Because Only One Meter Used For Many Wells

TABULATION OF WATER USE:

Year	Hours Pumped (hr)	Tested Pumping Rate (gpm)	Water Used (AF)	Acres Irrigated
1975	2376	1500		507
1977	897	750		639
1978				
1979	1224	650		127
1980	1416	650		127
1981	1152	650		127
1982				
* 1983	2200 [‡]	732 [*]	296.5 [*]	267 [*]
1984	1750 [‡]	800 [‡]		267 [‡]
1985	1850 [‡]	800 [‡]		267 [‡]
1986		732 [*]		
* From Test Data				
‡ From Water Use Reports Sent By Jerry Weaver of Agri Affiliates				

Not under normal conditions, only when pumping by itself at low pressure

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

Crops Irrigated: this year wheat Year of record 1975-1986

REMARKS: _____

SCANNED

WATER RESOURCES RECEIVED

JUN 29 2015

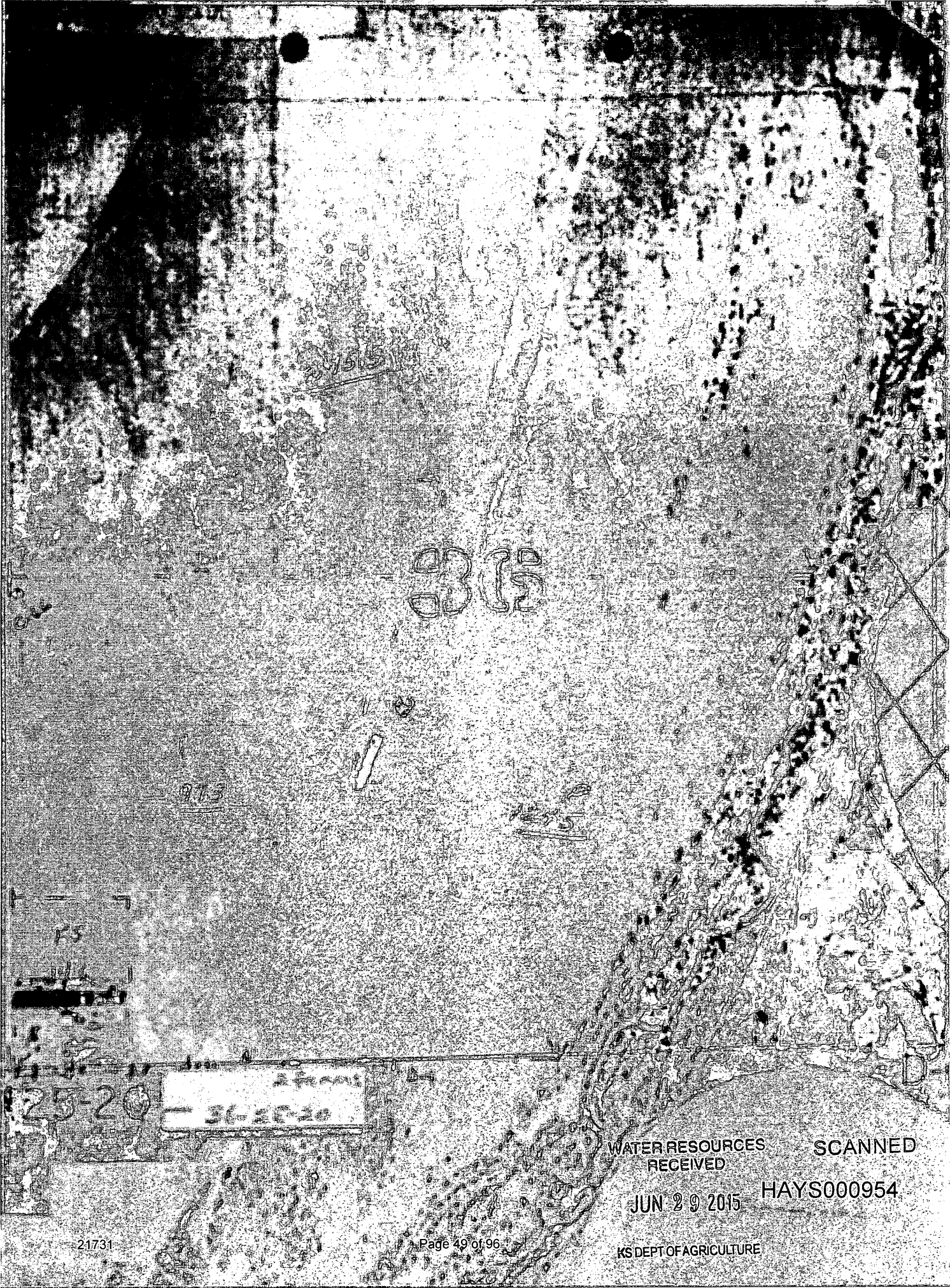
KS DEPT OF AGRICULTURE

Person present at test Kent Naber Irrigation Manager

Water Use Correspondent Lyle Kolbeck Spearville, KS 67876 (316) 385-2803

Conducted by Daniel Klassen Date 10-14-80

Approved by [Signature] Date 3/7/87 HAYS000953



21731

315

973

173

25-20

36-20-20

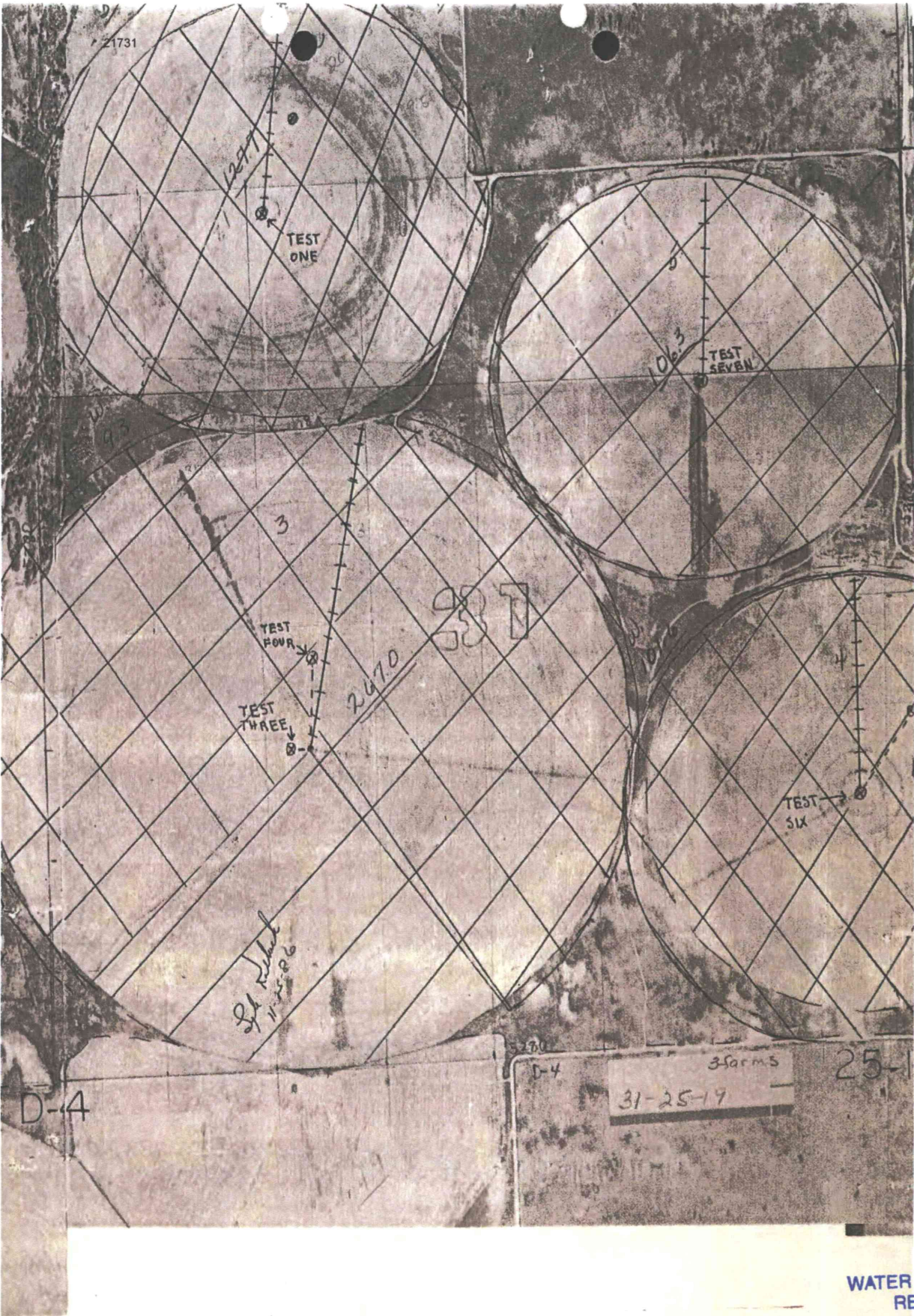
WATER RESOURCES RECEIVED

JUN 29 2015

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SCANNED

HAYS000954



21731

TEST ONE

TEST SEVEN

TEST FOUR

TEST THREE

TEST SIX

331

2670

*Dr. R. H. ...
11-5-96*

D-4

D-4

3 farms

31-25-17

25-1

WATER RESOURCES RECEIVED

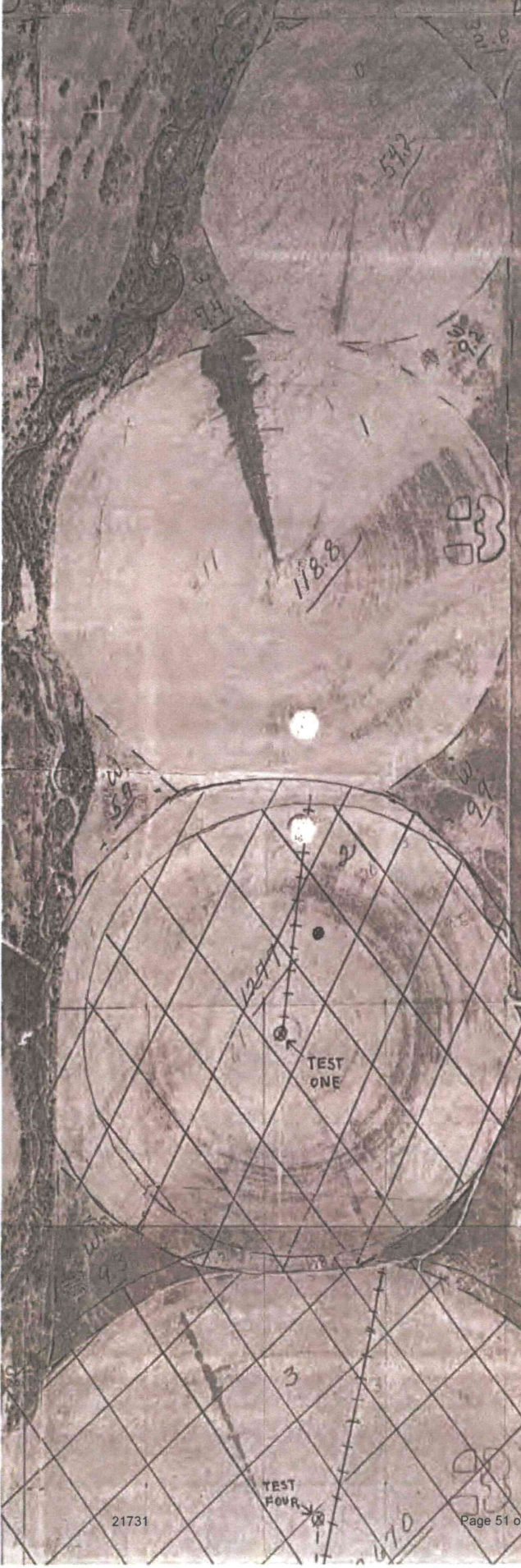
JUN 29 2015

SCANNED

KS DEPT OF AGRICULTURE

HAYS000955

30-55-19 25-19



APPLICATION 21731
 LEGEND
 @ Well
 ++ Pivot
 --- Underground Pipe
 \\\ Land on Application
 /// Land Irrigated Presently, which
 Is The Same As Land Irrigated
 In Years ~~6~~ ~~2~~ To Perfect
 And Year of Record

WATER RESOURCES RECEIVED

JUN 29 2015 HAYS000956

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5272

61.3

67

122.5

1083

32

151.2

steel marker 12' north of wire post

pivot is 192

from section

pi 1325 on axis

10.9

25-19

tech makes marking corner of farms
section 32-25-19
from fence post
← 1205 to road →

D-5
5298

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MAR 1 0 1987

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HAYS000957

4587

P
2862

333

120.5

P
859

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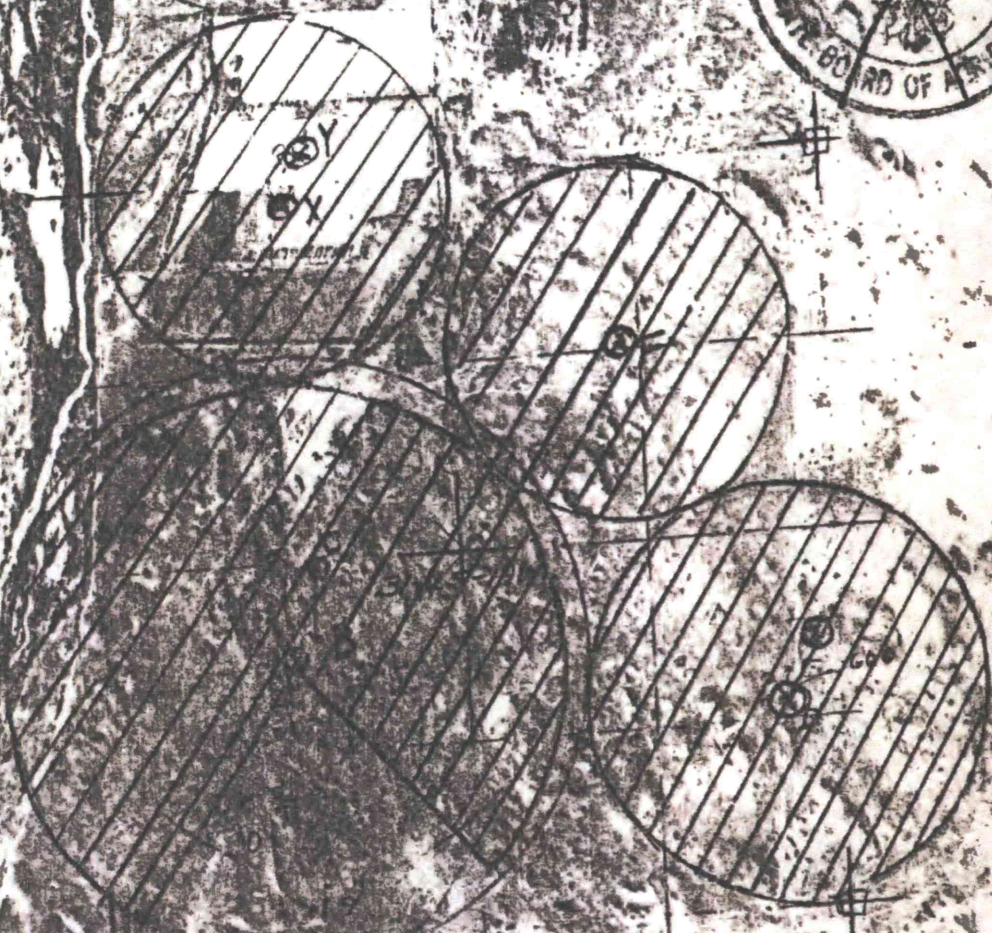
D-5

D-5 2 farms 25-19
WATER RESOURCES RECEIVED
JUN 29 2015
HAYS000958

21731



MICROFILM



Date stamp Received 1-2

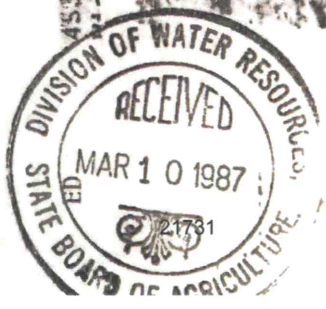
453 S. Webb Rd.

All wells within 1/2 mile belong to Midwest Land & Cattle Co.

ACTUAL ACRES APPLIED FOR ON OK16. APPROX. APPLICATION 21,731

MICROFILMED

SCANNED



WATER RESOURCES CONNECTION RECEIVED

LIKE INS. CO. HAYS000959
PUMPING UNIT TESTING INC.
Redy West

Page 54 of 96 JUN 29 2015

APPLICATION NO: 21731 NAME: Connecticut General Life Ins.

COLLINS METER TEST

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

Pipe Inside Diameter (inches) 8 5/16 Flow Rate Factor 167.9

Test Pressure (psi) 20 Test RPM, Pump 1759

Description of Test Location In horizontal pipe between discharge head and pressure tank

#

TEST DATA: <input checked="" type="checkbox"/> Check, Initial	<u>4.89</u>	Reversed	<u>4.88</u>
	Velocity		Velocity
Meter Setting From	Left Side of Pipe	Right Side of Pipe	
Center of Pipe	(or Front Side if Vertical Test)	(or Back Side if Vertical Test)	

<u>1 1/16</u>	<u>4.59</u>	<u>4.63</u>	<u>4.71</u>	<u>4.80</u>
<u>2 1/16</u>	<u>4.35</u>	<u>4.50</u>	<u>4.57</u>	<u>4.48</u>
<u>3 1/16</u>	<u>4.13</u>	<u>4.10</u>	<u>4.05</u>	<u>4.37</u>

Average Velocity of Water = Sum of Vel. ÷ 12 = 4.44

Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 4.44 x .9826 = 4.36

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 4.36 x 167.9 = 732 GPM

WATER RESOURCES RECEIVED

PUMPING PLANT TESTING, INC JUN 29 2015

Reviewed By:

[Signature]
RECEIVED
Professional Engineer

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HAYS000960

AUG 31 1995

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SCANNED

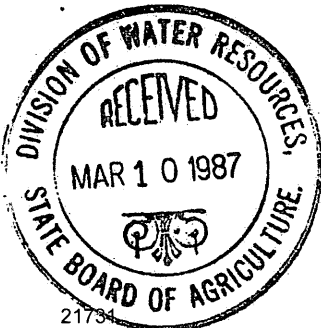


EXHIBIT
J 2173
 10-06

DIVISION OF WATER RESOURCES—KANSAS STATE BOARD OF AGRICULTURE
FIELD INSPECTION REPORT

- Partial
- Full
- Re-Test

Test 5 of 7 Diversion points
 circle 4 B. well
 Application No. 21731 Date 1-28-87 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 Insurance Co. & 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: 1 well SE 1/4, NE 1/4, SE 1/4 Sec. 31, T. 25, R. 19
 Approximately _____ ft. North and _____ ft. West of SE corner of Sec. _____

Actual Point of Diversion: 1 well SE 1/4 NE 1/4 SE 1/4 Sec. 31, T. 25, R. 19
 Approximately 190 ft. North and 65 ft. West of SE corner of Sec. 31

How were distances determined? By Scaling off Aerial Photo, Scale From Original Survey Plats

"Approved" Quantity 1090 ac-ft "Approved" Diversion Rate 390 g.p.m. (8.69 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:

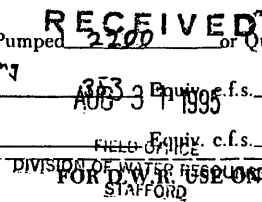
S	T	R	NE 1/4				NW 1/4				SW 1/4				SE 1/4				TOTAL ACRES
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
30	25	19										23	26				1		50
31	25	19	27	34	38	27	36	28	38	39	34	37	13	6	40	35	17	34	488
32	25	19							1			25	23						49
36	25	20				7									20			7	34
																			621

LAND IRRIGATED—YEAR OF RECORD 1985

S	T	R	NE 1/4				NW 1/4				SW 1/4				SE 1/4				TOTAL ACRES
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
31	25	19				2.5									39	6.5	3.4	30.8	82.2
32	25	19						.5			23	16.3							39.8
																			122

APPLICATION OF WATER:

Year of Record 1983 Hours Pumped 2200 or Quantity 143
 combined flowrate, both wells pumping
 Normal Operating C.P.M. into pivot 353 g.p.m. c.f.s. 0.79
 This well pumping alone
 Maximum Operating C.P.M. 244 g.p.m. c.f.s. 0.544



Year of Record 1983 Extension of time requested: Yes No

Total No. of Hours on land covered by this application 2200

Ac. Ft. Applied = $\frac{2200 \text{ hrs.} \times 138 \text{ g.p.m.} \times 4.419}{24 \times 1000} = 56 \text{ AF}$

Acres of "Approved" Land irrigated 122

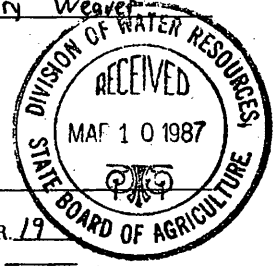
Ac. Ft. on "Approved" Land 56 (0.46 Ac. Ft./Ac.)

Ac. Ft. Used on "Approved" Land at "Approved" Rate or Less 56

Proration Calculations 87 A.F. (well A) + 56 A.F. (well B) = 143 A.F.

Perfected Rate 24.5 g.p.m. Perfected Quantity 56 AF

DWR-101 21731 completed by Phyllis E. Bush 3-16-95



WATER RESOURCES RECEIVED

JUN 29 2015

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 HAYS000961

SCANNED

GENERAL INFORMATION ON IRRIGATION SYSTEM:

Center Pivot High Pressure Low Pressure

Manufacturer Zimmatic Model 310 Serial No. 2999

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. 300 HP _____

Serial No. 08946 E-23-TL Fuel Natural Gas Rated RPM _____

PUMP INFORMATION:

Manufacturer JOHNSTON Model No. _____ Rated RPM _____

Serial No. CF 21237 Type Vertical Turbine No. stages _____

GEAR HEAD INFORMATION:

Manufacturer AMBILLO Model No. S-80

Serial No. 87932 Drive Right Angle Ratio 5:4

WELL INFORMATION: NO WELL RECORDS AVAILABLE

Date Drilled _____ Original Depth 38 ft. Static Water Level When Drilled 10 ft.

Tape Down Possible? YES Water Level Measurement Tube? NO

Measuring Point 0.5 ft. above or below L.S.D. STATIC LEVEL = 19'

WATER RESOURCES RECEIVED

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ADDITIONAL REQUIREMENTS:

Meter Required? NO Make of Meter _____

Meter Model No. _____ Serial No. _____ Size _____

Is Meter Installed Properly? YES

Chemical Injection System? YES Check Valve? YES Low Pressure Drains? YES

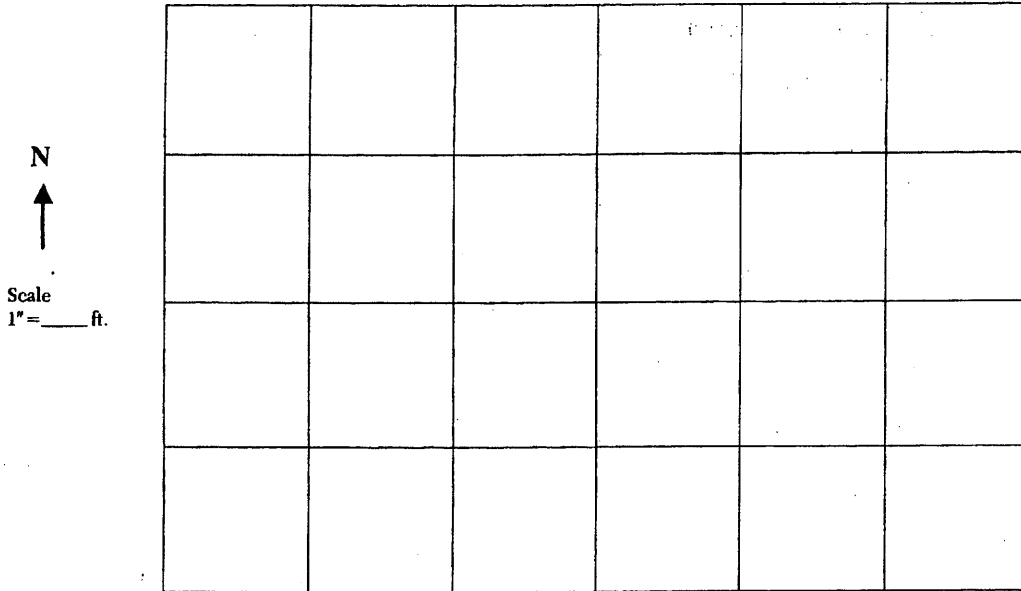
Vacuum Breaker? YES Are these anti-pollution devices installed properly? YES

KS DEPT OF AGRICULTURE

HAYS0000962

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 days
 Location of test 6' from discharge head (under driveshaft)
 Pipe Diameter (I.D.) 8 1/4 inches

BOTH WELLS PUMPED
 Test No. 1—Normal Conditions
TOGETHER INTO 1 PIVOT
 R.P.M. POWER UNIT 2168 2196
 R.P.M. PUMP UNIT 1734 1788
 Pressure at Pump 50 psi

WELL IN THIS REPORT PUMPED ALONE
 Test No. 2—Maximum Conditions
 R.P.M. POWER UNIT 1400
 R.P.M. PUMP UNIT 1120
 Pressure at Pump 7.8 psi

Jacuzzi Meter Test

Meter Identification No. _____

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

- Velocity (fps)
1. _____
 2. _____
 3. _____
 4. _____
 5. _____
 6. _____
 7. _____
 8. _____
 9. _____
 10. _____

Total _____
 Avg. _____
 G.P.M. _____

- Velocity (fps)
1. _____
 2. _____
 3. _____
 4. _____
 5. _____
 6. _____
 7. _____
 8. _____
 9. _____

Total _____
 Avg. _____
 G.P.M. _____

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WATER RESOURCES RECEIVED

JUN 29 2015

FIELD OFFICE
DIVISION OF WATER RESOURCES
STAFFORD

Propeller Meter Test

Manufacturer _____ Model _____ Serial No. _____

KS DEPT OF AGRICULTURE

Meter Diameter _____ inches

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

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

MICROFILMED
HAYS000963

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 = $\frac{kw-hr}{rate}$ = _____

Other Fuels Type Natural Gas Supplier Kansas - Nebraska

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

How was the test volume determined? Not Determined Because only one meter used for many well

TABULATION OF WATER USE:

Year	Hours Pumped (hr)	Tested Pumping Rate (gpm)	Water Used (AF)	Acres Irrigated
1975	1296	900		507
1976				
1977	590	1000		639
1978				
1979	1224	400		121
1980	1416	400		121
1981	1152	400		121
1982		This wells contribution to total flow under normal conditions		
* 1983	‡ 2200	56*	22.7*	122‡
1984	‡ 1850	450‡		121‡
1985	‡ 1850	450‡		121‡
1986				

* From Test Data

‡ From Water Use Reports Sent By Jerry Weaver of Agri Affiliates

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

Crops Irrigated: this year Soybeans Year of record ALFMA

REMARKS: _____

WATER RESOURCES RECEIVED

JUN 29 2015

KS DEPT OF AGRICULTURE

Person present at test Kent Naber Irrigation Manager

Water Use Correspondent Lyle Kolbeck Spearville, KS 67876 (316) 385-2803

Conducted by Daniel Klassen Date 2-4-87

Approved by Ed Wunt P.E. Date 3/7/87 HAYS000964

MEMORANDUM

To: Files

From: Terry Sheets

Re: Appropriation of Water
File No.

Date: 3-30-87

The Field Inspection Report for the above referenced file, conducted under contract by Pumpkin Plant Testing, has been reviewed. It meets the requirements specified in the Scope of Work. The certificate of appropriation has not been drafted for the following reason(s):

6 of 7 wells tested

I don't understand. How can 6 of 7 wells tested meet the specifications of the scope of work? Unless the untested well was meant to be deleted @ issuance of the certificate. Sheets should explain WDC 9-21-90

WATER RESOURCES RECEIVED

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KS DEPT OF AGRICULTURE

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AUG 31 1995

HAYS000965

APPLICATION NO: 21731 NAME: Connecticut General Life Ins. Co.

CIRCLE 4 - SE 1/4, NE 1/4, SE 1/4

COLLINS METER TEST ON B well pumping alone. Check valve at other well leaking, allowing some water to run back into other well, resulting in low pressure

Collins Meter No. 1-83 Meter Calibration Factor 9635

Pipe Inside Diameter (inches) 8 1/4 Flow Rate Factor 165.3

Test Pressure (psi) 7.8 Test RPM, Pump 1120

Description of Test Location in horizontal pipe 6' from discharge head under drive shaft

TEST DATA: Q Check, Initial 1.70 Reversed 1.74
 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)

Meter Setting	Left Side Velocity	Right Side Velocity
<u>1 1/16</u>	<u>1.65</u>	<u>1.60</u>
<u>2 15/16</u>	<u>1.60</u>	<u>1.58</u>
<u>3 3/4</u>	<u>1.40</u>	<u>1.35</u>

Average Velocity of Water = Sum of Vel. ÷ 12 = 1.53

Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 1.53 x 9635 = 1.48

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 1.48 x 165.3 = 2.44 GPM

WATER RESOURCES RECEIVED

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PUMPING PLANT TESTING, INC. JUN 29 2015

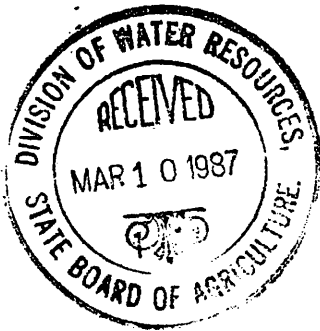
Reviewed By:

[Signature]

KS DEPT OF AGRICULTURE

Professional Engineer

HAYS000966



APPLICATION NO: 21731 NAME: Connecticut General Life Ins. Co.

CIRCLE 4 - BOTH WELLS TOGETHER

COLLINS METER TEST of combined Flowrate, both wells pumping together into pivot

Collins Meter No. 1-83 Meter Calibration Factor .9635

Pipe Inside Diameter (inches) 7 3/4 Flow Rate Factor 145.4

Test Pressure (psi) 50 Test RPM, Pump 1785 1734
A well B well

Description of Test Location in vertical pipe inside pivot stand

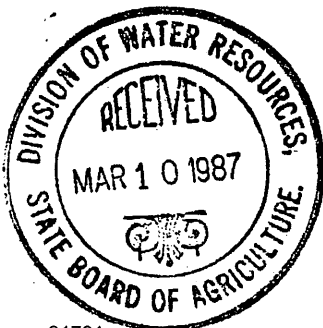
TEST DATA: Q Check, Initial 2.70 Reversed 2.68
 Meter Setting From Center of Pipe
 Velocity Left Side of Pipe (or Front Side if Vertical Test) Velocity Right Side of Pipe (or Back Side if Vertical Test)

<u>1 9/16</u>	<u>2.63</u>	<u>2.64</u>	<u>2.69</u>	<u>2.68</u>
<u>2 3/4</u>	<u>2.48</u>	<u>2.55</u>	<u>2.61</u>	<u>2.64</u>
<u>3 9/16</u>	<u>2.37</u>	<u>2.09</u>	<u>2.42</u>	<u>2.45</u>

Average Velocity of Water = Sum of Vel. ÷ 12 = 2.52

Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) =
2.52 x .9635 = 2.429

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) =
2.429 x 145.4 = 353 GPM



WATER RESOURCES RECEIVED

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PUMPING PLANT TESTING, INC.

JUN 29 2015

Reviewed By:

[Signature]

KS DEPT OF AGRICULTURE

RECEIVED Professional Engineer

HAYS000967 MICROFILMED

DIVISION OF WATER RESOURCES—KANSAS STATE BOARD OF AGRICULTURE
FIELD INSPECTION REPORT

- Partial
- Full
- Re-Test

Test 6 of 7 Diversion points
circle 4, A well
Application No. 21731 Date 1-28-87 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 Insurance Co. % 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: 1 well SE 1/4, NE 1/4, SE 1/4 Sec. 31, T. 25, R. 19
Approximately _____ ft. North and _____ ft. West of SE corner of Sec. _____

Actual Point of Diversion: 1 well SE 1/4 NE 1/4 SE 1/4 Sec. 31, T. 25, R. 19
Approximately 1460 ft. North and 385 ft. West of SE corner of Sec. _____
How were distances determined? By Scaling off Aerial Photo, Scale From Original Survey Plats

"Approved" Quantity 1090 ac-ft "Approved" Diversion Rate 3900 g.p.m. (8.69 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	NE 1/4				NW 1/4				SW 1/4				SE 1/4				TOTAL ACRES
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
30	25	19																	50
31	25	19	27	34	38	27	36	28	38	39	34	37	13	6	40	35	17	39	488
32	25	19							1				25	23					49
36	25	20				7									20			7	34
																			621

LAND IRRIGATED—YEAR OF RECORD 1985

S	T	R	NE 1/4				NW 1/4				SW 1/4				SE 1/4				TOTAL ACRES
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
31	25	19				2.5									39	6.5	3.4	30.8	82.2
32	25	19						.5			23	16.3							39.8
																			122

APPLICATION OF WATER:

Year of Record 1983 Hours Pumped 2200 or Quantity 1013

combined Flowrate, Both wells pumping
Normal Operating G.P.M. into pivot 353 Equiv. c.f.s. .79

This well pumping alone
Maximum Operating G.P.M. 378 Equiv. c.f.s. .84

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Year of Record 1993 Extension of time requested: Yes _____ No

AUG 31 1995

Total No. of Hours on land covered by this application 2200

FIELD OFFICE
DIVISION OF WATER RESOURCES
STAFFORD
WATER RESOURCES RECEIVED

Ac. Ft. Applied = $\frac{2200 \text{ hrs.} \times 215 \text{ g.p.m.} \times 4.419}{24 \times 1000} = 87 \text{ AF}$

Acres of "Approved" Land irrigated 122

JUN 29 2015

Ac. Ft. on "Approved" Land 87 (0.71 Ac. Ft./Ac.)

SCANNED

KS DEPT OF AGRICULTURE

Ac. Ft. Used on "Approved" Land at "Approved" Rate or Less 187

Proration Calculations 87 A.F. (well A) + 56 A.F. (well B) = 143 A.F.

Perfected Rate 380 g.p.m. Perfected Quantity 87 AF

DWR-101 21731

completed by Douglas E. Bush
3-16-95

Revised March 1986

GENERAL INFORMATION ON IRRIGATION SYSTEM:

Center Pivot High Pressure Low Pressure
 Manufacturer Zimatic Model 310 Serial No. 2999
 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. 300 HP —
 Serial No. 08941 E-23-7L Fuel Natural Gas Rated RPM —

PUMP INFORMATION:

Manufacturer Fairbanks-Morse Model No. 10M Rated RPM —
 Serial No. N2X2804996X Type Vertical Turbine No. stages —

GEAR HEAD INFORMATION:

Manufacturer RANDOLPH Model No. F60
 Serial No. 2183 Drive Right Angle Ratio 6:5

WELL INFORMATION:

Date Drilled — Original Depth 38 ft. Static Water Level When Drilled 10 ft.
 Tape Down Possible? NO - CANT EXTEND PLUG Water Level Measurement Tube? NO
 Measuring Point — ft. above or below L.S.D.

ADDITIONAL REQUIREMENTS:

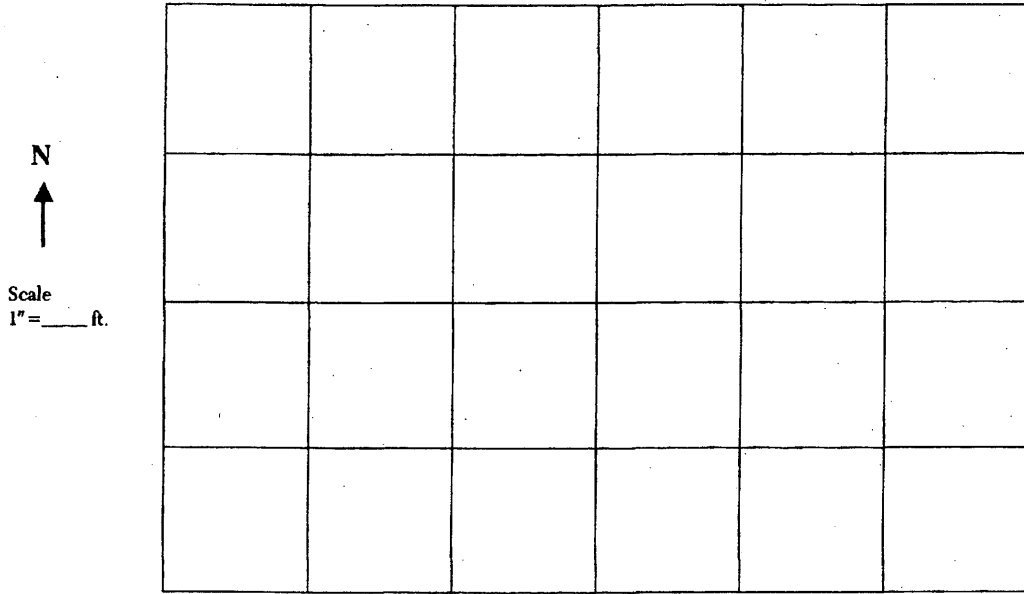
Meter Required? NO Make of Meter — **SCANNED**
 Meter Model No. — Serial No. — Size —
 Is Meter Installed Properly? —
 Chemical Injection System? YES Check Valve? yes Low Pressure Drain? YES
 Vacuum Breaker? yes Are these anti-pollution devices installed properly? yes HAYS000969
 If chemicals are injected into system, please attach sketch of system.

WATER RESOURCES
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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 days
 Location of test 10' downstream from discharge head (under engine)
 Pipe Diameter (I.D.) 7 3/4 inches

WELL IN THIS REPORT TESTED

WELL IN THIS REPORT PUMPING ALONE

Test No. 1—Normal Conditions
Along with other well
 R.P.M. POWER UNIT 2146 2668
 R.P.M. PUMP UNIT 1788 1734
 Pressure at Pump 50 psi

Test No. 2—Maximum Conditions
 R.P.M. POWER UNIT 2113
 R.P.M. PUMP UNIT 1761
 Pressure at Pump 6.7 psi

Jacuzzi Meter Test

Meter Identification No. _____

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

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

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

Propeller Meter Test

Manufacturer _____ Model _____

Meter Diameter _____ inches

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

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

Other Flow Meter

Use Supplemental Sheet (include meter identification, data and calculations).

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FIELD OFFICE DIVISION OF WATER RESOURCES STAFFORD

KS DEPT OF AGRICULTURE

SCANNED

MICROFILMED HAYS000970

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 Because Only One Meter Used For Many wells

TABULATION OF WATER USE:

Year	Hours Pumped (hr)	Tested Pumping Rate (gpm)	Water Used (AF)	Acres Irrigated
1975	1296	900		507
1976	590	1000		639
1977				
1978				
1979				
1980	1416	450		130
1981				
1982		This wells contribution to total flow under normal conditions		
* 1983	2200 [‡]	297 [*]	120.3 [*]	122 [‡]
1984	1850 [‡]	400		121 [‡]
1985	1850 [‡]	400		121 [‡]
1986				
* From Test Data				
‡ From Water Use Reports Sent By Jerry Weaver of Agri Affiliates				

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

Crops Irrigated: this year Soy beans Year of record 1983

REMARKS: _____

WATER RESOURCES RECEIVED

JUN 29 2015

KS DEPT OF AGRICULTURE

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

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

Conducted by Daniel Klassen Date 2-4-87
(signature)

Approved by Kid J. Wentz, P.E. Date 3/6/87 HAYS000971
(signature) (title)

SCANNER

APPLICATION NO: 21731 NAME: Connecticut General Life Ins.

COLLINS METER TEST On A well under normal conditions before flow is combined with B well (Both wells operating and pumping into pivot)

Collins Meter No. L-85 Meter Calibration Factor 9826

Pipe Inside Diameter (inches) 7 3/4 Flow Rate Factor 145.4

Test Pressure (psi) 52 Test RPM, Pump 1764

Description of Test Location in horizontal pipe 10' from discharge head under pivot

TEST DATA:	Q	Check, Initial	2.40	Reversed	2.38
			Velocity		Velocity
Meter Setting From		Left Side of Pipe		Right Side of Pipe	
Center of Pipe		(or Front Side if		(or Back Side if	
		Vertical Test)		Vertical Test)	

<u>1 7/16</u>	<u>2.15</u>	<u>2.15</u>	<u>2.30</u>	<u>2.35</u>
<u>2 3/4</u>	<u>1.94</u>	<u>2.02</u>	<u>2.12</u>	<u>2.18</u>
<u>3 9/16</u>	<u>1.70</u>	<u>1.80</u>	<u>2.10</u>	<u>2.10</u>

Average Velocity of Water = Sum of Vel. ÷ 12 = 2.08

Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 2.08 x 9826 = 2.04

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 2.04 x 145.4 = 296.6 GPM

SCANNED

WATER RESOURCES RECEIVED

PUMPING PLANT TESTING, INC. JUN 29 2015

Reviewed By: RECEIVED

KS DEPT OF AGRICULTURE

Professional Engineer

AUG 31 1995

HAYS000972

MICROFILMED



APPLICATION NO: 21731 NAME: Connecticut General Life Ins.

COLLINS METER TEST A well pumping alone (check valve leaking, allowing some water to run back to other well, resulting in low pressure)

Collins Meter No. 1-85 Meter Calibration Factor 9826

Pipe Inside Diameter (inches) 7 3/4 Flow Rate Factor 145.4

Test Pressure (psi) 6.7 Test RPM, Pump 1761

Description of Test Location 10' after discharge head in vertical pipe under engine

TEST DATA: Check, Initial 3.09 Reversed 3.05

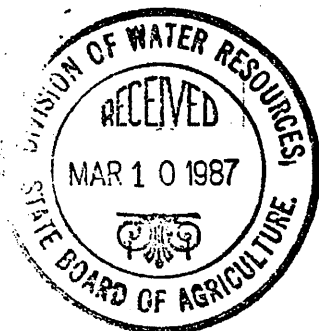
Meter Setting From Center of Pipe	Velocity Left Side of Pipe (or Front Side if Vertical Test)	Velocity Right Side of Pipe (or Back Side if Vertical Test)
-----------------------------------	---	---

<u>1 9/16</u>	<u>2.75</u> <u>2.80</u>	<u>2.95</u> <u>2.82</u>
<u>2 3/4</u>	<u>2.48</u> <u>2.58</u>	<u>2.80</u> <u>2.75</u>
<u>3 9/16</u>	<u>2.35</u> <u>2.30</u>	<u>2.60</u> <u>2.65</u>

Average Velocity of Water = Sum of Vel. ÷ 12 = 2.6525

Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 2.6525 x 9826 = 2.6

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 2.6 x 145.4 = 378 GPM



WATER RESOURCES RECEIVED

PUMPING PLANT TESTING, INC. JUN 29 2015

Reviewed BY [Signature]

KS DEPT OF AGRICULTURE

Professional Engineer

AUG 31 1995

HAYS000973 MICROFILMED

APPLICATION NO: 21731 NAME: Connecticut General Life Ins. Co.

COLLINS METER TEST of Combined Flowrate, both wells pumping together

Collins Meter No. 1-83 Meter Calibration Factor 9635

Pipe Inside Diameter (inches) 7 3/4 Flow Rate Factor 145.4

Test Pressure (psi) 50 Test RPM, Pump 1788 1734
A well B well

Description of Test Location In vertical pipe inside pivot stand

TEST DATA: <input checked="" type="checkbox"/> Check, Initial <u>2.70</u> Reversed <u>2.68</u>	Velocity	Velocity
Meter Setting From Center of Pipe	Left Side of Pipe (or Front Side if Vertical Test)	Right Side of Pipe (or Back Side if Vertical Test)

<u>1 9/16</u>	<u>2.63</u>	<u>2.64</u>	<u>2.69</u>	<u>2.68</u>
<u>2 3/4</u>	<u>2.48</u>	<u>2.55</u>	<u>2.61</u>	<u>2.64</u>
<u>3 9/16</u>	<u>2.37</u>	<u>2.09</u>	<u>2.42</u>	<u>2.45</u>

Average Velocity of Water = Sum of Vel. ÷ 12 = 2.52

Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 2.52 x 9635 = 2.429

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 2.429 x 145.4 = 353

GPM SCANNED

WATER RESOURCES RECEIVED

PUMPING PLANT TESTING, INC. JUN 29 2015

Reviewed RECEIVED
Professional Engineer

KS DEPT OF AGRICULTURE

HAYS000974

AUG 31 1995

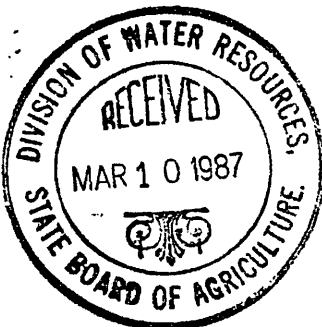


EXHIBIT
21731
L

DIVISION OF WATER RESOURCES—KANSAS STATE BOARD OF AGRICULTURE
FIELD INSPECTION REPORT

- Partial
- Full
- Re-Test

Test 7 of 7 Diversion points.
Circle 5
Application No. 21731 Date 10/1/86 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. 70 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: NC NE 1/4 Sec. 31, T. 25, R. 19
Approximately _____ ft. North and _____ ft. West of SE corner of Sec. _____

Actual Point of Diversion: 1 well NC NE 1/4 Sec. 31, T. 25, R. 19
Approximately 3975 ft. North and 1270 ft. West of SE corner of Sec. 31
How were distances determined? By Scaling off Aerial Photo, Scale From Survey Plots

"Approved" Quantity 1090 AF "Approved" Diversion Rate 3900 g.p.m. (8.69 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	NE 1/4				NW 1/4				SW 1/4				SE 1/4				TOTAL ACRES
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
30	25	19																	50
31	25	19	27	34	38	27	36	28	38	39	34	37	13	6	40	35	17	39	488
32	25	19							1			25	23						49
36	25	19				7									20			7	34
																		621	

LAND IRRIGATED—YEAR OF RECORD 1983

S	T	R	NE 1/4				NW 1/4				SW 1/4				SE 1/4				TOTAL ACRES	
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE		
31	25	19	28	275	235	27													106	

APPLICATION OF WATER:

Year of Record 1983 Hours Pumped 2200 or Quantity 244 AF

Normal Operating G.P.M. 603 Equiv. c.f.s. 1.34

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

FOR D.W.R. USE ONLY

Year of Record 1983 Extension of time requested: Yes _____ No

Total No. of Hours on land covered by this application 2200

Ac. Ft. Applied = $\frac{2200 \text{ hrs.} \times 603 \text{ g.p.m.} \times 4.419}{24 \times 1000} = 245 \text{ AF}$ AUG 31 1995

Acres of "Approved" Land irrigated 108

Ac. Ft. on "Approved" Land 245 (2.27 Ac. Ft./Ac.)

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

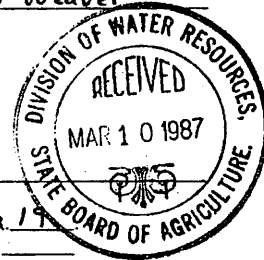
Proration Calculations 108 acres x 1.5 A.F. per acre = 162 AF HAYS000975

Perfected Rate 605 g.p.m. Perfected Quantity 162 AF

DWR-1071731

completed by Boyd E. Bush
3-11-95

Revised March 1986



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GENERAL INFORMATION ON IRRIGATION SYSTEM:

Center Pivot High Pressure Low Pressure

Manufacturer Olson Model 103 PL Serial No. 3984

Drive Electric Length of Pivot Arm _____

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

End Gun? yes End Gun Rating 7050 g.p.m.

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. 34843 F-13-HK Fuel Natural Gas Rated RPM _____

PUMP INFORMATION:

Manufacturer Johnston Model No. _____ Rated RPM _____

Serial No. CF21231 Type Vertical Turbine No. stages _____

GEAR HEAD INFORMATION:

Manufacturer Amasillo Model No. S100

Serial No. 75505 Drive Right Angle Ratio 6:5

WELL INFORMATION: NO WELL RECORDS AVAILABLE (SEE DATA FROM WATER USE REPORT)

Date Drilled _____ Original Depth 55 ft. Static Water Level When Drilled 10 ft.

Tape Down Possible? yes 14' Water Level Measurement Tube? no

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

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ADDITIONAL REQUIREMENTS:

Meter Required? no Make of Meter _____

Meter Model No. _____ Serial No. _____ Size _____

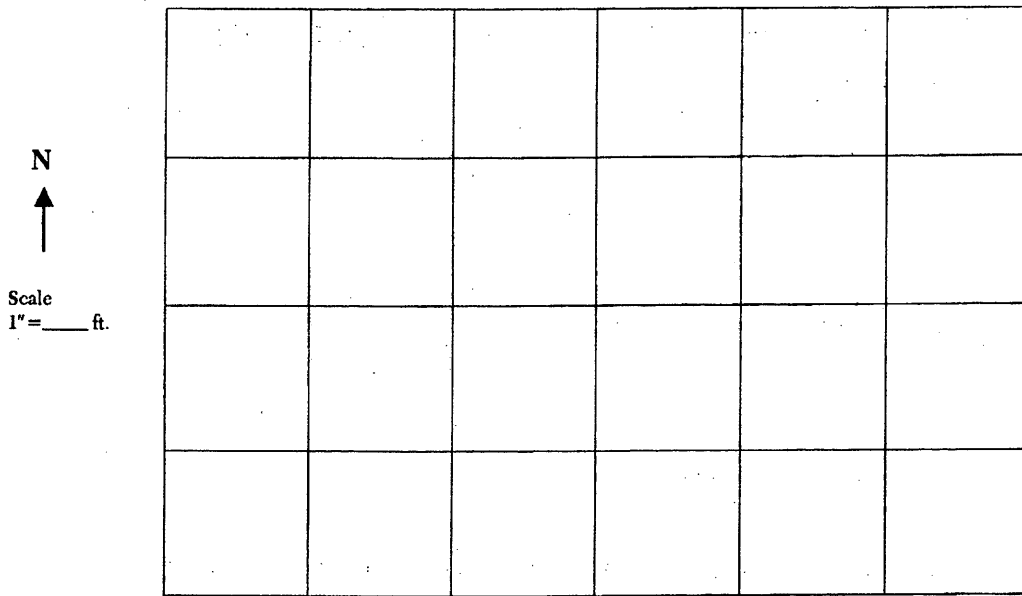
Is Meter Installed Properly? _____

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

Vacuum Breaker? yes Are these anti-pollution devices installed properly? yes HAYS000976

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.) 7 3/4 inches

Test No. 1—Normal Conditions

R.P.M. POWER UNIT 2119
 R.P.M. PUMP UNIT 1766
 Pressure at Pump 88 psi

Test No. 2—Maximum Conditions

R.P.M. POWER UNIT _____
 R.P.M. PUMP UNIT _____
 Pressure at Pump _____ psi

Jacuzzi Meter Test

Meter Identification No. _____

Area Constant $K = 2.45 \times I.D.^2 =$ _____ $Q (gpm) = VK$

Velocity (fps)

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____
- 6. _____
- 7. _____
- 8. _____
- 9. _____
- 10. _____

Total _____
 Avg. _____
 G.P.M. _____

Velocity (fps)

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____
- 6. _____
- 7. _____
- 8. _____
- 9. _____
- 10. _____

Total _____
 Avg. _____
 G.P.M. _____

SCANNED

Propeller Meter Test

Manufacturer _____ Model _____ Serial No. _____

Meter Diameter _____ inches

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

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

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AUG 3 1995

JUN 29 2015

FIELD OFFICE DIVISION OF WATER RESOURCES STAFFORD KS DEPT OF AGRICULTURE

HAYS000977

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 Because Only One Meter For Many Wells

TABULATION OF WATER USE:

Year	Hours Pumped (hr)	Tested Pumping Rate (gpm)	Water Used (AF)	Acres Irrigated
1975	1680	900		507
1976				
1977	821	1000		630
1978				
1979	1224	550		106
1980	1416	550		106
1981	1152	550		106
1982				
* 1983	2200†	603*	244*	106‡
1984	1800*	725‡		108‡
1985	1900‡			108‡
1986		603*		

* From Test Data

‡ From Water Use Reports Sent By Jeffy Weaver of Agri. Affiliates

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

Crops Irrigated: this year Alfalfa Year of record Alfalfa

REMARKS:

WATER RESOURCES RECEIVED

JUN 29 2015

KS DEPT OF AGRICULTURE

Person present at test Kent Naber Irrigation Manager

Water Use Correspondent Lyle Kolbeck Spearsville, KS 67876 (616) 395-2803

Conducted by Greg Ebert Date 10/16/84

Approved by Kid J. White P.E. Date 3/7/87 HAYS000978

SCANNED

APPLICATION NO: 21731 NAME: Connecticut General Life Ins.

COLLINS METER TEST

Collins Meter No. 1-84 Meter Calibration Factor .9635
 Pipe Inside Diameter (inches) 7 3/4 Flow Rate Factor 145.4
 Test Pressure (psi) 88 Test RPM, Pump 1766
 Description of Test Location In horizontal pipe between pump and pivot

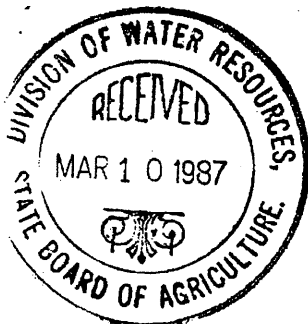
TEST DATA: Check, Initial 4.73 Reversed 4.72
 Meter Setting From Center of Pipe Velocity Left Side of Pipe (or Front Side if Vertical Test) Velocity Right Side of Pipe (or Back Side if Vertical Test)

<u>1 1/6</u>	<u>4.55</u>	<u>4.58</u>	<u>4.54</u>	<u>4.52</u>
<u>2 3/4</u>	<u>4.32</u>	<u>4.38</u>	<u>4.17</u>	<u>4.30</u>
<u>3 1/6</u>	<u>3.99</u>	<u>4.02</u>	<u>4.16</u>	<u>4.12</u>

Average Velocity of Water = Sum of Vel. ÷ 12 = 4.304

Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 4.304 x .9635 = 4.147

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 4.147 x 145.4 = 603 GPM



WATER RESOURCES RECEIVED

PUMPING PLANT TESTING, INC. JUN 29 2015

Reviewed by [Signature]
 Professional Engineer

KS DEPT OF AGRICULTURE

AUG 31 1995

HAYS000979

KANSAS STATE BOARD OF AGRICULTURE
Division of Water Resources

M E M O R A N D U M

TO: Files

DATE: March 20, 1995

FROM: Douglas E. Bush

RE: Appropriation of Water
File No. 21,731

The Certificate of Appropriation is based on field inspections conducted October 1, 1986 and February 23, 1995. The latter field inspection was conducted because one (1) of the seven (7) wells was not operable during the earlier field inspection.

The quantity for the wells located in the Southwest Quarter of the Southeast Quarter of the Southwest Quarter (SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$) of Section 30 and in the Northwest Quarter of the Northeast Quarter of the Northwest Quarter (NW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$) of Section 31 were limited to 192 acre-feet when the wells are operated together. Both wells are used together to operate a 128 acre pivot. During the year 1980 the wells when operating together perfected the maximum allowable quantity of 192 acre-feet of water. During the year 1983, the well located in the Northwest Quarter of the Northeast Quarter of the Northwest Quarter (NW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$) of Section 31 when operating by itself perfected 192 acre-feet of water. By limiting these two (2) wells, no limitation was needed for all seven (7) wells. All rates shown on the Certificate of Appropriation were from individual tested rates. The well located in the Northwest Quarter of the Northeast Quarter of the Northwest Quarter (NW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$) of Section 31 for many years pumped adequate water to run the pivot system by itself when the well located in the Southwest Quarter of the Southeast Quarter of the Southwest Quarter (SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$) of Section 30 was out of order. The well located in the Southwest Quarter of the Southeast Quarter of the Southwest Quarter (SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$) of Section 30 was pumped in 1988 and has been operated since.

Four (4) of the remaining wells are operated such that two (2) wells are paired together to operate two (2) pivots. The quantities were prorated by rate on the hours pumped and the combined rate. The well located in the Northwest Quarter of the Northeast Quarter of the Southwest Quarter (NW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$) and the well located in the Southwest Quarter of the Northeast Quarter of the Southwest Quarter (SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$) of Section 31 were operated together through a 267 acre pivot. However, only 211 acres were approved to be irrigated by the pivot. Therefore, the perfected quantity was prorated to the approved acres irrigated as the maximum allowable for the irrigation of 211 acres at 1.5 acre-feet per acre was not exceeded. The quantity perfected by the two (2) wells located in the Southeast Quarter of the Northeast Quarter of the Southeast Quarter (SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$) of Section 31, were calculated using the pumped quantity from each well as the maximum allowable was not exceeded.

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AUG 31 1995

HAYS001024

21731

JUN 29 2015

FIELD OFFICE
DIVISION OF WATER RESOURCES
STAFFORD

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MEMO
Page 2
File No. 21,731
March 20, 1995

The ownership of the land pertaining to the above referenced file was recently changed. The ownership shown on the FIRs are therefore incorrect.

Water use was reviewed and water use has been shown in the recent past, therefore the water right appears to be active.

Douglas E. Bush

Douglas E. Bush
Environmental Scientist

DEB:jt

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HAYS001025

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EXHIBIT
21731
N

circles 2, 3, 4, 5

1977 WATER USE REPORT AND ASSESSMENT FORM
for
BIG BEND GROUNDWATER MANAGEMENT DISTRICT NO. 5

2 X

Name Paul Mann and First National Investors Water Application # 21,731
Corporation, Inc. Section 31, Township 25 South, Range 19 West
Address 453 South Webb Road City Wichita State Kansas Zip Code 67207
County Edwards Township Name Brown

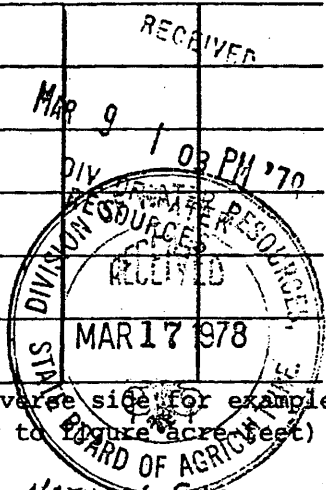
Fill out a separate report for each vested right and each appropriation right or permit. Identify each by vested right code or application number above.

This report applies to: (X only 1) A vested right Appropriation right

Purpose of use: Irrigation; Municipal*; Industrial*; Recreational*

Hours Pumped and Average Pumping Rate	If Water is Metered	WELL INFORMATION (if available)		
		1 Gallons	2 Acre-feet	Date Measured

Hours	GPM	(Check Units Used)	Depth of Well	Depth of Water
922	500	85 A-cft		
821	1000	150 " "		
922	500	85 " "		
897	750	123		
897	750	123		
590	1800	108		
TOTAL				



If irrigation use, total acres irrigated 639 Type of fuel for pump NATURAL GAS

Crop(s) irrigated under this right ALFALFA

I hereby affirm that the statement of water use on this form contains a full and true account of such water use by me, to the best of my knowledge and belief.

Date 3-RECEIVED

[Signature]
Signature of person filing this report

If tenant, who is the owner

Owner's address

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DIVISION OF WATER RESOURCES
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AUG 28 1978

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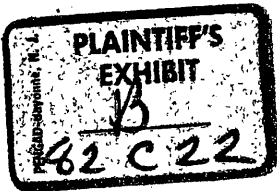
THIS FORM MUST BE FILLED OUT BY ALL WATER USERS! [Those using less than one (1) acre-foot total water usage (not per acre) need not report.] HAYS000892

Prescribed under the authority of K.S.A. 82a-1030. Big Bend Groundwater Management District No. 5 P O Box 12531 St. John, KS 67576. Call us for need assistance. (316) 549-3891.

MICROFILMED

*ALL MUNICIPAL, INDUSTRIAL, AND RECREATIONAL USERS MUST FILL OUT THE REVERSE SIDE OF THIS FORM.

-21731

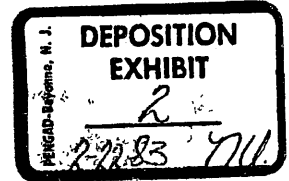


AMERICAN AGRICULTURAL INDUSTRIES, INC.

RURAL ROUTE *1

P O. BOX 187

KINSLEY, KANSAS 67547



TELEPHONES
AREA CODE 316
659-2668
659-2772
659-3711

TELEX NUMBER
910-740-6720

March 25, 1982

Slentz-McAllaster Inc.

P O Box 38

Lewis, Kansas 67552

Dear Don,

This letter is in reference to our conversation concerning the alfalfa insurance on the alfalfa located at the Lucerne Farms in Kinsley, Kansas.

As of today, we will no longer be responsible for the insurance on the alfalfa that you have paid us for but have not removed from the farm.

Our records show that you have paid us \$ 416,000.00 (this includes the March payment of \$ 52,000.00) for alfalfa. At \$65.00 per ton this figures that you have paid for 6,400 ton of hay. We show that you have removed 2278 bales at 1800 lbs average weight. That is 2050.2 Tons removed. So there is 4,349.80 tons of alfalfa on this farm that you have paid for but you have not removed.

If you have any question on how I have arrived at these figures please contact me.

Best Regards,

Pamela Meadows

Pamela Meadows

Secretary

*Note: This figure of 2278 removed doesn't include the 54 bales taken this week.

FILED
83 NOV 16 PM 5 05
CLERK DISTRICT COURT
KANSAS

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HAYS004448

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LUCERNE FARMS HAY
PRODUCTION

McALLASTERS 4/5		TOTAL BALES	ANIBYPRO 1/5	
#0			#0	
1st	13	16	1st	4
2nd	52	65	2nd	13
3rd	83	104	3rd	21
4th	31	39	4th	8
#1			#1	
1st	73	91	1st	18
2nd	113	141	2nd	28
3rd	127	159	3rd	32
4th	46	58	4th	12
#2			#2	
1st	54	68	1st	14
2nd	106	133	2nd	27
3rd	144	180	3rd	36
4th	48	60	4th	12
#3			#3	
1st	153	191	1st	38
2nd	164	205	2nd	41
3rd	373	466	3rd	93
4th	121	152	4th	31
#4			#4	
1st	82	103	1st	21
2nd	85	106	2nd	21
3rd	170	212	3rd	42
4th	32	40	4th	8
#5			#5	
1st	44	55	1st	11
2nd	155	194	2nd	39
3rd	135	169	3rd	34
4th	38	47	4th	9
#6			#6	
1st	41	51	1st	10
2nd	82	103	2nd	21
3rd	164	205	3rd	41
4th	82	102	4th	20
#7			#7	
1st	141	176	1st	35
2nd	170	212	2nd	42
3rd	206	258	3rd	52
4th	96	120	4th	24
#8			#8	
1st	82	103	1st	21
2nd	122	153	2nd	31
3rd	177	221	3rd	44
4th	99	124	4th	25

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HAYS004449

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#9			#9	
1st	119	149	1st	30
2nd	194	243	2nd	49
3rd	167	209	3rd	42
4th	82	102	4th	20
#10			#10	
1st	77	96	1st	19
2nd	261	326	2nd	65
3rd	201	251	3rd	42
4th	118	148	4th	30
#11			#11	
1st	116	145	1st	29
2nd	208	260	2nd	52
3rd	162	202	3rd	40
4th	42	52	4th	10
#12			#12	
1st	130	162	1st	32
2nd	302	377	2nd	75
3rd	257	321	3rd	64
4th	110	137	4th	27
#13			#13	
1st	75	94	1st	19
2nd	122	153	2nd	31
3rd	121	151	3rd	30
4th	13	16	4th	4
#16			#16	
1st	70	88	1st	18
2nd	144	180	2nd	36
3rd	86	108	3rd	22
4th	15	19	4th	4
#17			#17	
1st	107	134	1st	27
2nd	218	273	2nd	55
3rd	122	152	3rd	30
4th	42	53	4th	11
#18			#18	
1st	23	28	1st	6
#19			#19	
1st	47	59	1st	12
2nd	42	53	2nd	11
3rd	50	63	3rd	13
#30			#30	
1st	126	158	1st	32
2nd	157	196	2nd	39
3rd	90	113	3rd	23
4th	18	23	4th	5
#38			#38	
1st	98	122	1st	24
2nd	162	202	2nd	40
3rd	95	119	3rd	24
4th	52	65	4th	13

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HAYS004450

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#39				#39	
1st	16		20	1st	4
2nd	26		33	2nd	7
3rd	31		39	3rd	8

Total Bales 10776

McAllasters 4/5's 8621
Anibypros 1/5's 2155

*Note In order to come up to 8.000 Tons it will take 8.889 bales of 1800lbs.
This will leave Anibypro 1887 bales

21731
 SLENTZ-MCALLESTER INC.
 ALFALFA REMOVED FROM LUCERNE FARMS

	INITIALS	DATE	REFERENCE
PREPARED BY			
CHECKED BY			
APPROVED BY			

DATE	CIRCLE #	CUTTING	AMOUNT OF BALES TAKEN	TONS PER SCALE TICKETS
8-30	7	3rd	52	45.58
	10	3rd	50	43.2
9-7	7	3rd	108	94.34
	12	3rd	104	86.92
9-14	12	3rd	78	66.05
	5	3rd	113	93.85
	10	3rd	116	92.39
	11	2nd	30	18.38
	4	3rd	138	128.08
	12	3rd	30	26.24
9-21	30	3rd	69	57.46
	38	3rd	79	60.97
10-5	6	4th	21	21.97
10-12	8	4th	83	89.20
10-19	7	4th	52	55.89
10-26	9	4th	42	38.54
11-2	10	4th	78	68.8
	12	4th	56	58.83
11-9	9	4th	52	48.76
11-16	2	4th	22	22.82
	9	4th	3	3.00
	8	4th	41	42.36
	10	3rd	20	16.47
	6	4th	26	26.54
	7	4th	34	36.74
11-23	2	4th	22	22.73
	11	4th	26	24.55
	38	4th	52	52.02
12-7	30	4th	22	21.51
	38	4th	4	3.91
12-21	7	3rd	47	41.31
	9	4th	8	7.30
1-4	7	2nd	28	20.98
	7	3rd	11	9.14
	7	4th	15	12.17
1-17	3	4th	60	61.2
1-19	3	4th	28	26.39
	12	4th	56	43.63
1-29	12	3rd	28	18.78
1-30	12	3rd	2	1.75
	12	1st	78	70.52
2-2	5	4th	28	23.51
	12	1st	26	23.17
2-4	7	1st	7	5.44
	7	2nd	8	6.21
2-11	7	3rd	7	5.44
	7	1st	12	10.61
	7	2nd	14	12.38
2-22	30	2nd	52	44.21

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KS DEPT OF AGRICULTURE

SCANNED
 HAYS004452

PREPARED BY	INITIALS	DATE	REFERENCE
CHECKED BY			
APPROVED BY			

DATE	CIRCLE #	CUTTING	AMOUNT OF BALES TAKEN	TONS PER SCALE TICKET
2-24	38	1st	26	23.75
3-9	7	2nd	30	21.64
3-10	10	3rd	5	3.95
	11	4th	25	23.60
3-15	7	1st	23	21.21
	7	2nd	5	4.61
3-17	8	1st	26	24.58
			TOTALS:	
(* This does not include hay taken this week) 3/25/82			<u>2278</u>	<u>2,035.58</u>

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KS DEPT OF AGRICULTURE

HAYS004453

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 *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:

<u>Area, Place of use</u>	<u>Max. Allowable Rate</u>	
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.

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WATER RESOURCES
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JUN 29 2015

Administrative Policy No.86-8
Page 2

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.

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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 (NW $\frac{1}{4}$) 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 (NW $\frac{1}{4}$)]. 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 (NE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$)].

The quantities for the wells located near the center of the Northwest Quarter (NW $\frac{1}{4}$) and in the Northeast Quarter of the Southwest Quarter of the Northwest Quarter (NE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$) 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 (NW $\frac{1}{4}$)], 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 (NE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$)].

The quantities for the wells located near the center of the Southwest Quarter (SW $\frac{1}{4}$) and in the Northeast Quarter of the Southwest Quarter of the Southwest Quarter (NE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$) 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

WATER RESOURCES
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Memo
 page two
 File No. 21,729
 March 17, 1987

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 (SW $\frac{1}{4}$) of said section and the well located in the Northeast
 Quarter of the Southwest Quarter of the Southwest Quarter (NE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$) 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 approved rate.

Douglas E. Bush

Douglas E. Bush
 Hydrologist

DEB:jt

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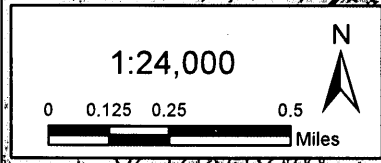
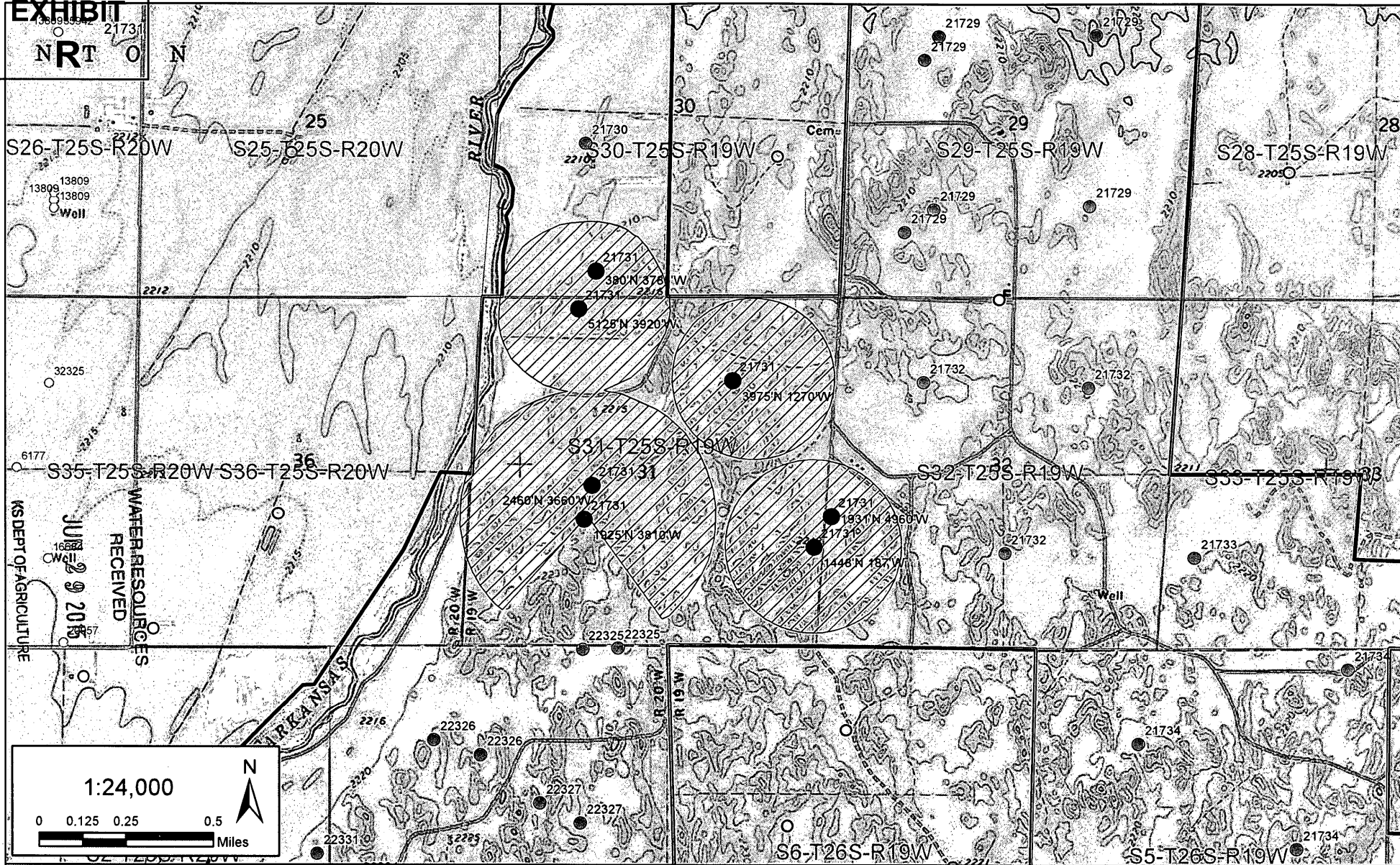
FIELD OFFICE
 DIVISION OF WATER RESOURCES
 Page 87 of 96
 STAFFORD

JUN 29 2015

SCANNED

EXHIBIT

NRT



Legend

- 21731 Existing Point(s) of Diversion
- Irrigation Wells (File No.)
- ▨ 21731 Existing Place of Use
- Stockwater Wells (File No.)
- ▭ R9 Ranch Property Boundary
- Domestic Well (Non-Permitted)
- ▭ PLSS Sections 21731
- Stock Well (Non-Permitted)
- Existing R9 Ranch Irrigation Wells



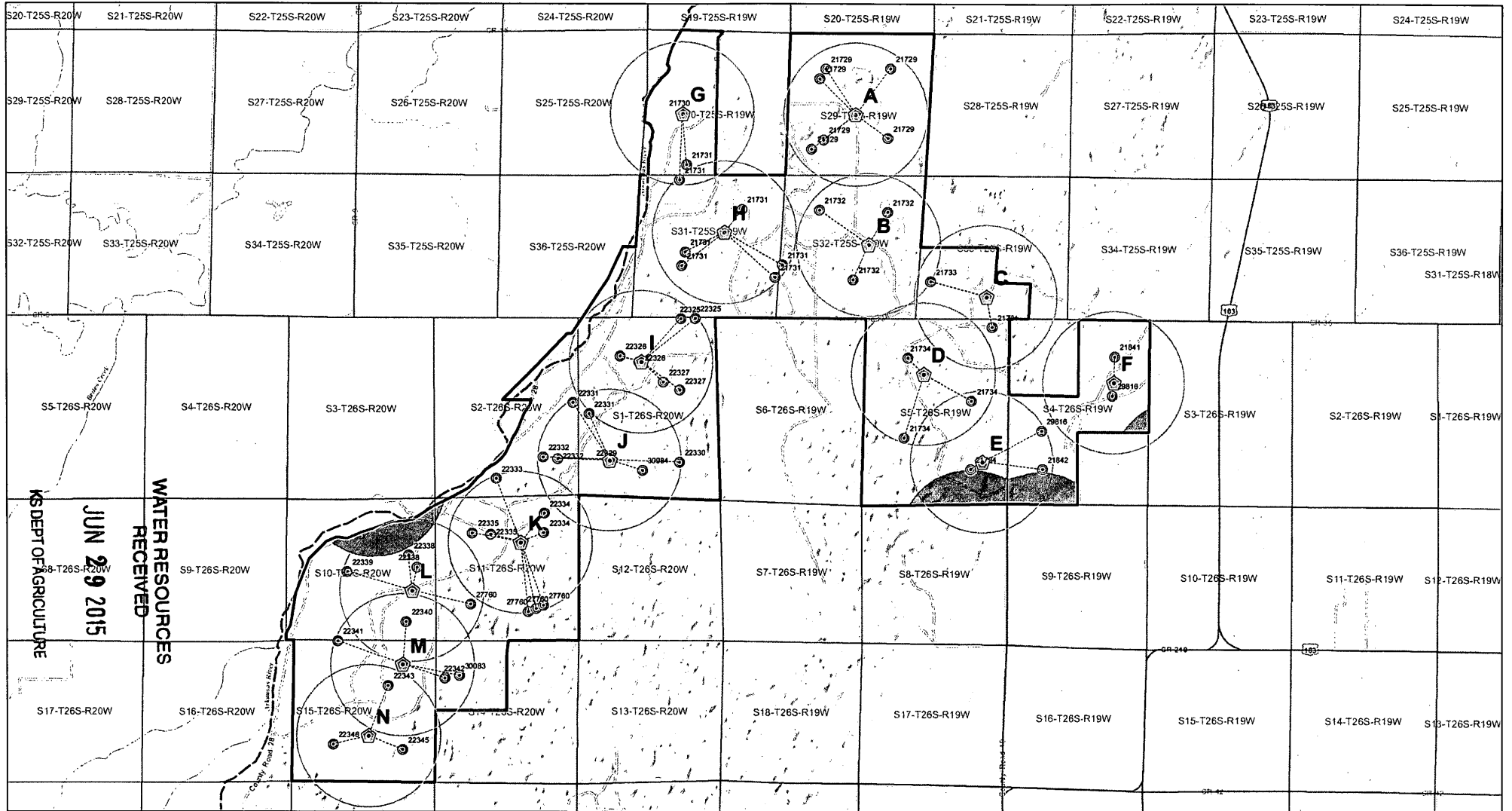
**CHANGE APPLICATION 21731
APPLICATION MAP
AUTHORIZED PLACE OF USE &
POINTS OF DIVERSION**

SCANNED

EXHIBIT

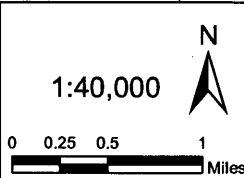
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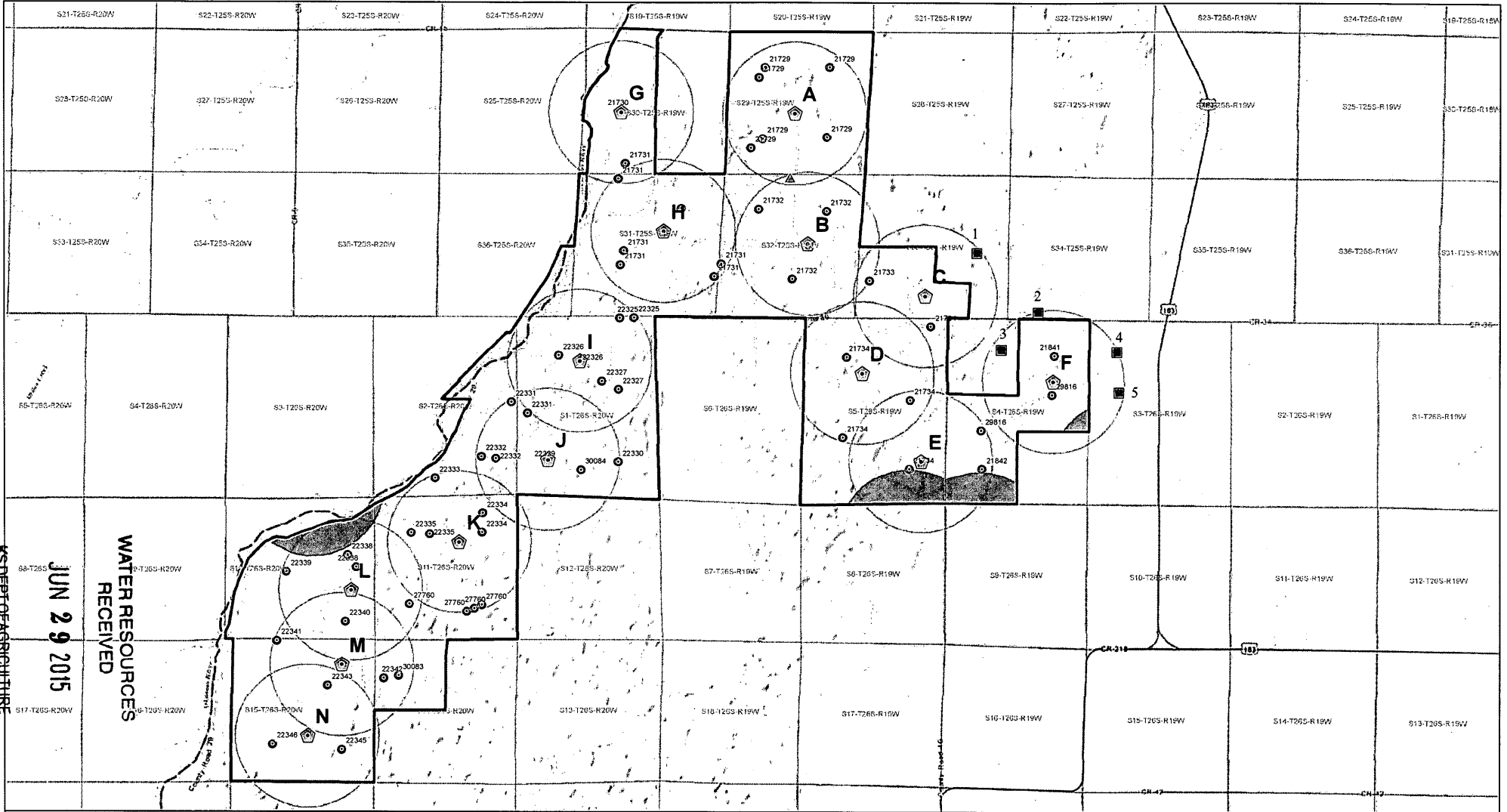
- Proposed Municipal Wells (A-N)
- Existing R9 Ranch Points of Diversion
- 1/2 Mile Buffer Around Proposed Wells
- Water Rights Consolidation Lines
- Area Excluded From Proposed Wells
- River Centerline
- R9 Ranch Property Boundary
- PLSS Sections



**BURNS
MCDONNELL**

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EXHIBIT
T 21731



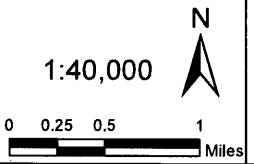
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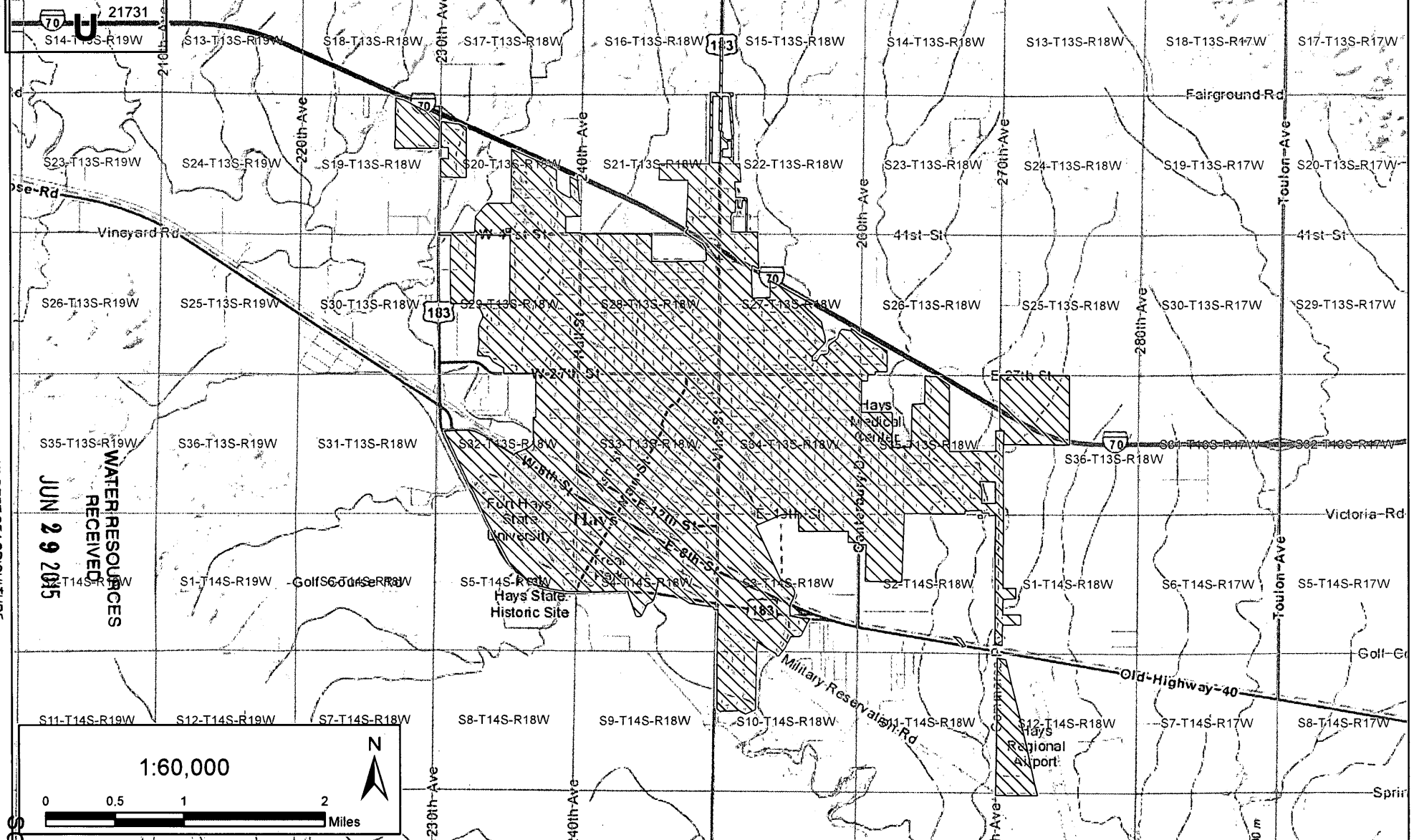
Legend

- Proposed Municipal Wells (A-N)
- Existing R9 Ranch Points of Diversion
- 1/2 Mile Buffer Around Proposed Wells
- PLSS Sections
- Area Excluded From Proposed Wells
- R9 Ranch Property Boundary
- Domestic Well (Non-Permitted)
- Stock Well (Non-Permitted)



SCANNED

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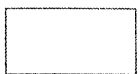


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Proposed Place of Use City of Hays

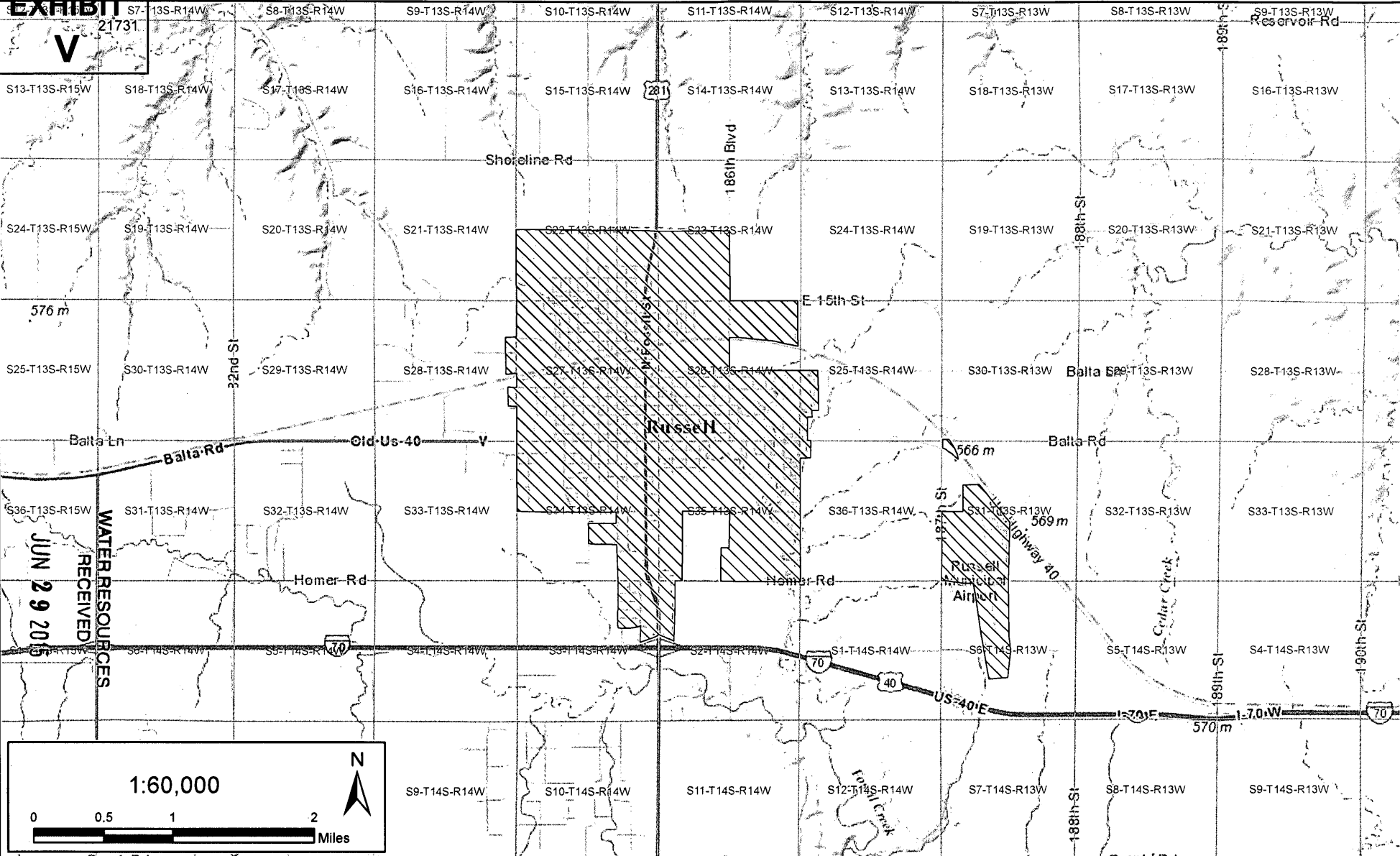


PLSS Sections



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21731
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WATER RESOURCES
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Proposed Place of Use - City of Russell



PLSS Sections



21731
 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
 W**

**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			10,819,000	587,865,000	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	693,866,000			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	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
	Raw Water Diverted Under Your Rights	Water Purchased From All Sources	Water Sold to Other Public Water Suppliers	Water Sold to Your Industrial, Stock, and Bulk Customers	Water Sold to Your Residential and Commercial Customers	Other Metered Water	Remaining Water Used (See Explanation on other side)
Year 5	753,014,900			11,886,600	654,779,400	17,959,700	68,389,200
Year 10	828,316,380			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	91,028,025
	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 2 Industrial _____ Other (specify) _____
 1,256 Commercial _____ Pasture/ Stockwater/ Feedlot 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

$$\frac{673,753,000}{\text{Amount of water in Columns 5, 6, and 7 of Section 1}} \div \frac{21,038}{\text{Population from Last Year of Section 4}} \div 365 \text{ Days/Year} = 88 \text{ GALLONS PER PERSON PER DAY.}$$

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.

Applicant's Name City of Russell
(Please Print)

**MUNICIPAL (PUBLIC WATER SUPPLY) APPLICATION
SUPPLEMENTAL INFORMATION SHEET**

Application File Number _____
(assigned by DWR)

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NOTE: WORKSHEET FOR WATER PUMPED, PURCHASED, AND SOLD BY YOUR WATER DISTRIBUTION SYSTEM.**

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327,288,100	0	0	105,295,000	108,743,000	19,944,000	93,308,100
TOTAL WATER = Columns 1 + 2		ACCOUNTED FOR WATER = Columns 3 + 4 + 5 + 6				UNACCOUNTED FOR WATER

UNACCOUNTED FOR WATER = TOTAL WATER - ACCOUNTED FOR WATER

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UNACCOUNTED FOR WATER

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

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.



**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	477,486,000	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

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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	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
	Raw Water Diverted Under Your Rights	Water Purchased From All Sources	Water Sold to Other Public Water Suppliers	Water Sold to Your Industrial, Stock, and Bulk Customers	Water Sold to Your Residential and Commercial Customers	Other Metered Water	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 ÷ 4,475 ÷ 365 Days/Year = 135.9 GALLONS PER PERSON PER DAY.

Amount of water in Columns 5, 6, and 7 of Section 1 Population from Last Year of Section 4

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 Page 05 of 06 of your request.

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