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.
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

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

File No. 21729 Circles 7, 8, 9, & 10.

2. Name of applicant: City of Hays, Kansas and City of Russell, Kansas (See paragraph 2 of the cover letter.)
   Address: c/o Foulston Siefkin LLP, 1551 N. Waterfront Parkway, Suite 100
   City, State and Zip: Wichita, Kansas 67206
   Phone Number: (316) 291-9725    E-mail address: dtraster@foulston.com

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

   Name of water use correspondent: City of Hays, Kansas
   Address: P. O. Box 490, 1507 Main Street
   City, State and Zip: Hays, Kansas 67601
   Phone Number: (785) 628-7320    E-mail address: tdougherty@haysusa.com

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

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

   (Date)

For Office Use Only:
F.O. 2    GMD 5    Meets K.A.R. 5-5-1 Use LRR    Source G/S County ED
Code C-3    Fee $700 TR #    Receipt Date 1/22/15

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

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Assisted by: SCANNED
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 | NE | NW | SW | SE | NE | NW | SW | SE | NE | NW | SW | SE | NE | NW | SW | SE | TOTAL ACRES |
|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|

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 | NE | NW | SW | SE | NE | NW | SW | SE | NE | NW | SW | SE | NE | NW | SW | SE | TOTAL ACRES |
|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|
|               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 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 | NE | NW | SW | SE | NE | NW | SW | SE | NE | NW | SW | SE | NE | NW | SW | SE | TOTAL ACRES |
|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|
| 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 | NE | NW | SW | SE | NE | NW | SW | SE | NE | NW | SW | SE | NE | NW | SW | SE | TOTAL ACRES |
|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|
| 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.
6. The presently authorized point(s) of diversion is (are) irrigation well(s) described in paragraph 8, infra. (Provide description and number of points)

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

List all presently authorized point(s) of diversion:

8. **Presently authorized point of diversion:**

   One in the ______ near the center ______ Quarter of the ______ Quarter of the ______ NE ______ Quarter of Section 29, Township 25, South, Range 19 NE/W, in ______ Edwards County, Kansas, 3,968 feet North 1,312 feet West of Southeast corner of section.

   Authorized Rate 615 gpm Authorized Quantity 188 a/f

   (DWR use only: Computer ID No. ______ GPS ______ feet North _______ feet West)

   □ This point will not be changed [ ] This point will be changed as follows:

   **Proposed point of diversion: (Complete only if change is requested)**

   One in the ______ NE ______ Quarter of the ______ NE ______ Quarter of the ______ SW ______ Quarter of Section 29, Township 25, South, Range 19 NE/W, in ______ Edwards County, Kansas, 2,259 feet North 2,705 feet West of Southeast corner of section.

   Proposed Rate 2,900 gpm Proposed Quantity 870.83 a/f

   This point is: □ Additional Well □ Geo Center List other water rights that will use this point

9. **Presently authorized point of diversion:**

   One in the ______ near the center ______ Quarter of the ______ Quarter of the ______ NW ______ Quarter of Section 29, Township 25, South, Range 19 NE/W, in ______ Edwards County, Kansas, 3,982 feet North 3,603 feet West of Southeast corner of section.

   Authorized Rate 275 gpm Authorized Quantity 86 a/f

   (DWR use only: Computer ID No. ______ GPS ______ feet North _______ feet West)

   □ This point will not be changed [ ] This point will be changed as follows:

   **Proposed point of diversion: (Complete only if change is requested)**

   One in the ______ NE ______ Quarter of the ______ NE ______ Quarter of the ______ SW ______ Quarter of Section 29, Township 25, South, Range 19 NE/W, in ______ Edwards County, Kansas, 2,259 feet North 2,705 feet West of Southeast corner of section.

   Proposed Rate 2,900 gpm Proposed Quantity 870.83 a/f

   This point is: □ Additional Well □ Geo Center List other water rights that will use this point

10. **Presently authorized point of diversion:**

    One in the ______ NE ______ Quarter of the ______ SW ______ Quarter of the ______ NW ______ Quarter of Section 29, Township 25, South, Range 19 NE/W, in ______ Edwards County, Kansas, 3,607 feet North 4,167 feet West of Southeast corner of section.

    Authorized Rate 325 gpm Authorized Quantity 102 a/f

    (DWR use only: Computer ID No. ______ GPS ______ feet North _______ feet West)

    □ This point will not be changed [ ] This point will be changed as follows:

    **Proposed point of diversion: (Complete only if change is requested)**

    One in the ______ NE ______ Quarter of the ______ NE ______ Quarter of the ______ SW ______ Quarter of Section 29, Township 25, South, Range 19 NE/W, in ______ Edwards County, Kansas, 2,259 feet North 2,705 feet West of Southeast corner of section.

    Proposed Rate 2,900 gpm Proposed Quantity 870.83 a/f

    This point is: □ Additional Well □ Geo Center List other water rights that will use this point

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

    See paragraph 11 of the cover letter.

    **IF MORE SPACE IS NEEDED, ATTACH ADDITIONAL SHEETS AS NECESSARY.**
6. The presently authorized point(s) of diversion is (are) irrigation well(s) described in paragraph 8, infra.

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

List all presently authorized point(s) of diversion:

8. Presently authorized point of diversion:

<table>
<thead>
<tr>
<th>Section</th>
<th>Township</th>
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<th>NE</th>
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in Edwards County, Kansas, 1,416 feet North, 4,000 feet West of Southeast corner of section.

Authorized Rate: 360 gpm

Proposed point of diversion: (Complete only if change is requested)

<table>
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<tr>
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<td>25</td>
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in Edwards County, Kansas, 2,259 feet North, 2,705 feet West of Southeast corner of section.

Proposed Rate: 2,900 gpm

9. Presently authorized point of diversion:

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<tr>
<th>Section</th>
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in Edwards County, Kansas, 1,043 feet North, 4,370 feet West of Southeast corner of section.

Authorized Rate: 635 gpm

Proposed point of diversion: (Complete only if change is requested)

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in Edwards County, Kansas, 2,259 feet North, 2,705 feet West of Southeast corner of section.

Proposed Rate: 2,900 gpm

10. Presently authorized point of diversion:

<table>
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<tr>
<th>Section</th>
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in Edwards County, Kansas, 1,377 feet North, 1,415 feet West of Southeast corner of section.

Authorized Rate: 720 gpm

Proposed point of diversion: (Complete only if change is requested)

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<td>19</td>
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<td>19</td>
<td>25</td>
</tr>
</tbody>
</table>

in Edwards County, Kansas, 2,259 feet North, 2,705 feet West of Southeast corner of section.

Proposed Rate: 2,900 gpm

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.
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.

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

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

16. The application must include either a topographic map or detailed plat. A U.S. Geological Survey Topographic Map, scale 1:24,000, is available through the Kansas Geological Survey, 1930 Constant Avenue, University of Kansas, Lawrence, Kansas 66047-3726 (www.usgs.gov). The map should show the location of the presently authorized point(s) of diversion. Distances North and West of the Southeast corner of the section must be shown. The presently authorized place of use should also be shown. Identify the center of the section, the section lines and the section corners and show the appropriate section, township, and range numbers on the map. In addition the following information must also be shown on the map:
   a. If a change in the location of the point(s) of diversion is proposed, show:
      1) The location of the proposed point(s) of diversion. Distances North and West of the Southeast corner of the section must be shown. Please be certain that the information shown on the map agrees with the information shown in Paragraph Nos. 9, 10 and 11 of the application.
      2) If the source of supply is groundwater, please show the location of existing water wells of any kind, including domestic wells, within ½ mile of the proposed well or wells. Identify each well as to its use and furnish name and mailing address of the property owner or owners. If there are no wells within ½ mile, please indicate so on the map.
      3) If the source of supply is surface water, the names and mailing addresses of all landowner(s) ½ mile downstream and ½ mile upstream from your property lines must be shown.
   b. If a change in the place of use is desired, show the proposed place of use by crosshatching on the map. Please be certain that the information shown on the map agrees with the information shown in Paragraph No. 5 of the application.

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

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

City of Hays, Kansas, by Toby Dougherty, City Manager

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

Notary Public

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:

<table>
<thead>
<tr>
<th>Application Description</th>
<th>Fee</th>
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<tbody>
<tr>
<td>(1) Application to change a point of diversion 300 feet or less</td>
<td>$100</td>
</tr>
<tr>
<td>(2) Application to change a point of diversion more than 300 feet</td>
<td>$200</td>
</tr>
<tr>
<td>(3) Application to change the place of use</td>
<td>$200</td>
</tr>
<tr>
<td>(4) Application to change the use made of the water</td>
<td>$300</td>
</tr>
</tbody>
</table>

Make check payable to Kansas Department of Agriculture.
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 not be 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.

City of Russell, Kansas, by Jon Quinday, City Manager

Owner

Owner

Owner

Owner

Owner

Owner

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.

Notary Public

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.
Proposed Rate and Quantity

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

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

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

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

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

Quantity authorized and perfected

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

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

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

- 209 acre-feet were applied to 125 approved acres.
- 110 acre-feet and 94 acre-feet (204 acre-feet) were applied to 125 approved acres.

---

1 K.A.R. 5-5-9(a) and (a)(1).
2 K.A.R. 5-5-12, NIR Requirements.
3 K.A.R. 5-5-9(b).
4 Permit, HAYS000671, Ex. A.
5 Application, HAYS000664, Ex. B.
6 Certificate, HAYS000685, Ex. C.
7 February 27, 1976, letter (emphasis added), HAYS000670, Ex. D.
8 FIR, HAYS000654, Ex. E.
• 145 acre-feet\textsuperscript{11} and 94 acre-feet\textsuperscript{12} (239 acre-feet) were applied to 125 approved acres.
• 245 acre-feet were applied to 125 approved acres.\textsuperscript{13}

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

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

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

\textit{NIR for Alfalfa}

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

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

\textit{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.\textsuperscript{17} The regulation allows the conversion of 72\% of the maximum quantity to a new use; in other words, it assumes that 28\% of the quantity diverted returns to the aquifer.

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

\textsuperscript{9} FIR, HAYS000640, Ex. F.
\textsuperscript{10} FIR, HAYS000647, Ex. G.
\textsuperscript{11} FIR, HAYS000618, Ex. H.
\textsuperscript{12} FIR, HAYS000626, Ex. I.
\textsuperscript{13} FIR, HAYS000634, Ex. J.
\textsuperscript{15} FIRs, HAYS000621 (Ex. H), 629 (Ex. I), 637 (Ex. J), 643 (Ex. F), 650 (Ex. G), and 657 (Ex. E).
\textsuperscript{16} See K.A.R. 5-5-9(a)(4).
\textsuperscript{17} Administrative Policy No. 86-8, dated Nov. 5, 1986, Ex. L, stating that: “In that area of Kansas located between the Range 5 East/Range 6 East Line and the Range 20 West/Range 21 West line, the maximum allowable quantity shall not exceed an average of 1.50 acre-feet per acre irrigated.” See also, K.A.R. 5-3-24 and Doug Bush Memo dated March 17, 1987, HAYS000679-680, Ex. K.
The Applicants request that DWR approve a total of 870.83 acre-feet for municipal use.
APPROVAL OF APPLICATION

and

PERMIT TO PROCEED

(This Is Not a Certificate of Appropriation)

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

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

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

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

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

3. That the source from which the appropriation is made shall be from ground water in the drainage basin of the Arkansas River to be withdrawn by means of six (6) wells: one well near the center of the Northeast Quarter (NEQ); one well near the center of the Northwest Quarter (NWQ); one well in the Northeast Quarter of the Southwest Quarter of the Northwest Quarter (NEQ SWQ NWQ); one well near the center of the Southwest Quarter (SWQ); one well in the Northeast Quarter of the Southwest Quarter of the Northwest Quarter (NEQ SWQ NWQ); and one well near the center of the Southwest Quarter (SWQ) of Section 29, Township 25 South, Range 19 West, in Edwards County, Kansas, located substantially as shown on the aerial photograph accompanying the application.

4. That the appropriation sought shall be limited to a maximum diversion rate not to exceed 2500 gallons per minute (6.46 c.f.s.) and to a quantity of not to exceed 1000 acre-feet for any calendar year.
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 308 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 consent 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.
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:

Midwest Land & Cattle Company

Comes now the applicant (Miss) Elizabeth Venture whose post office address is 622 South 12th, Kansas City, Kansas 64105 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 as may be available in the Kansas River Basin in the county of Edwards, state of Kansas, to the extent and in accordance with the particulars hereinafter described:

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

2. The location of the proposed wells or other works for diversion of water is in the north quarter of the southeast quarter of the 29th township 25, range 19, in Edwards County, Kansas. Plus one well in the NW 1/4 of SW 1/4 of said section 6 and one well in the NE 1/4 of the SW 1/4 of sec. 29.

3. The water is intended to be appropriated for:

(a) Domestic use (x) 1000 acre ft
(b) Municipal use
(c) Irrigation use
(d) Industrial use
(e) Recreational use
(f) Water Power use

(please indicate use or uses and appropriate quantity for each use)
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 require-
ments.

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 
le

<table>
<thead>
<tr>
<th>Sec.</th>
<th>Twp.</th>
<th>Range</th>
<th>NE1</th>
<th>NW1</th>
<th>SW1</th>
<th>SE1</th>
<th>Total</th>
</tr>
</thead>
<tbody>
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<td>25</td>
<td>19</td>
<td>NE1</td>
<td>NW1</td>
<td>SW1</td>
<td>SE1</td>
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<td>SW1</td>
<td>SE1</td>
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<td>19</td>
<td>NE1</td>
<td>NW1</td>
<td>SW1</td>
<td>SE1</td>
<td></td>
</tr>
</tbody>
</table>

Owner of Land—NAME: KINSEY, JOHNNIE, JR. 
ADDRESS: 1200 E. 7TH STREET, PERRYTON, TEXAS 79070

---

Owner of Land—NAME: [Blank] 
ADDRESS: [Blank]

---

Owner of Land—NAME: [Blank] 
ADDRESS: [Blank]

---

Owner of Land—NAME: [Blank] 
ADDRESS: [Blank] 

---

WATER RESOURCES 
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#6/5/15

SCANNED
One well and pump in the center of each quarter section which will be the pivot

7. The works for diversion of water will consist of a circle irrigation system with one pivot, in SW/4, having two wells and pumps & pivot in NW/4 having two pumps & wells

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

By D. Allen Frame—Attorney

By (Agent or Officer)

Note:

1 cubic foot per second = 448.8 gallons per minute = 940.317 gallons per day = 1.98 acre feet per day. WATER RESOURCES RECEIVED

JUN 29 2015

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MAR 8 1976 DIVISION OF WATER RESOURCES HAYS000666 SCANNED
The four circle systems shown on this map are all within Section 29, Township 25, Range 19. Each circle system has a radius of 1520 feet and is served by pump and well at the pivot. In addition, the circle system in the SW/4 has one well and one pump at point X (at the pivot) and one well and pump at point Y which is 0.5 mile southwest of point X. Point X and point Y are joined by a pipe line. Each of these circle systems cover 125 acres.
WHEREAS, it has been determined by the undersigned that construction of the appropriation diversion works has been completed, that water has been used for beneficial purposes and that the appropriation right has been perfected, all in conformity with the conditions of approval of the application pursuant to the water right referred to above and in conformity with the laws of the State of Kansas.

NOW, THEREFORE, Be It Known that DAVID L. POPE, the duly appointed, qualified and acting Chief Engineer of the Division of Water Resources of the Kansas State Board of Agriculture, by authority of the laws of the State of Kansas, and particularly K.S.A. 82a-714, does hereby certify that, subject to vested rights and prior appropriation rights, the appropriator is entitled to make use of groundwater in the drainage basin of the Arkansas River to be withdrawn by means of six (6) wells: one (1) well located near the center of the Northeast Quarter (NE¼) of Section 29, more particularly described as being near a point 3,968 feet North and 1,312 feet West of the Southeast corner of said section, at a diversion rate not in excess of 615 gallons per minute (1.37 c.f.s.) and in a quantity not to exceed 188 acre-feet per calendar year; one (1) well located near the center of the Northwest Quarter (NW¼) of Section 29, more particularly described as being near a point 3,982 feet North and 3,603 feet West of the Southeast corner of said section, at a diversion rate not in excess of 275 gallons per minute (0.61 c.f.s.) and in a quantity not to exceed 86 acre-feet per calendar year; one (1) well located in the Northeast Quarter of the Southwest Quarter of the Northwest Quarter (NE¼ SW¼ NW¼) of Section 29, more...
Re: File No. 21,729

particularly described as being near a point 3,607 feet North and 4,457 feet West of the Southeast corner of said section, at a diversion rate not in excess of 325 gallons per minute (0.72 c.f.s.) and in a quantity not to exceed 102 acre-feet per calendar year; one (1) well located near the center of the Southwest Quarter (SW¼) of Section 29, more particularly described as being near a point 1,416 feet North and 4,000 feet West of the Southeast corner of said section, at a diversion rate not in excess of 435 gallons per minute (1.00 c.f.s.) and in a quantity not to exceed 114 acre-feet per calendar year; one (1) well located in the Northeast Quarter of the Southwest Quarter of the Southwest Quarter (NE¼ SW¼ SW¼) of Section 29, more particularly described as being near a point 1,416 feet North and 4,000 feet West of the Southeast corner of said section, at a diversion rate not in excess of 635 gallons per minute (1.41 c.f.s.) and in a quantity not to exceed 188 acre-feet per calendar year, all in Township 25 South, Range 19 West, Edwards County, Kansas, for irrigation use on the following described property:

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

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

The rate of diversion by means of the well located near the center of the Southwest Quarter (SW¼) of Section 29, more particularly described as being near a point 1,416 feet North and 4,000 feet West of the Southeast corner of said section, in Township 25 South, Range 19 West, Edwards County, Kansas, is further limited to that which when combined with the well located in the Southeast Quarter of the Southwest Quarter (SE¼ SW¼ SW¼) of Section 29, more particularly described as being near a point 1,416 feet North and 4,000 feet West of the Southeast corner of said section, in Township 25 South, Range 19 West, Edwards County, Kansas, will provide a diversion rate not in excess of 700 gallons per minute (1.56 c.f.s.) when the wells are run simultaneously.
This appropriation is further limited to a diversion rate which when all wells operate simultaneously will provide a diversion rate not in excess of 2,900 gallons per minute (6.46 c.f.s.) for irrigation use on the property described herein.

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

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

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

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

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

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

[Signature]

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

State of Kansas
County of Shawnee

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

[Signature]

Notary Public

My appointment expires: March 1, 1990

[Notary Seal]
February 27, 1976

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

Re: Appropriation of Water
Application No. 21,729

Gentlemen:

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

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

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

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

Very truly yours,

Riley M. Dixon
Hydrologist

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RMD:ee1
Encs.

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MAR 8 1976

Page 20
DIVISION OF WATER RESOURCES
STAFFORD

SCANNED
**Field Inspection Report**

**Application No.**: 21729  
**Date**: 9/30/86  
**Inspector**: Eberle/Klassen

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

**Current Landowner**: Connecticut General Life Insurance  
**Address**: Box 1162, North Platte, NE 69103  
**Att.**: Jerry Weaver


**Groundwater**  
**Surface Water**

**Authorized Point of Diversion**

- Well NC NE1/4 Sec. 29, T.25, R. 19  
- Approx. 31 ft. North and 1312 ft. West of SE corner of Sec.

**Actual Point of Diversion**

- Well NC NE1/4 Sec. 29, T.25, R. 19  
- Approx. 31 ft. North and 1312 ft. West of SE corner of Sec. 29

**How were distances determined?**  
Sealed from AGS photo

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

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

**Perfection Date**: Dec 31, 1981

**Other applications covering land and/or point of diversion**: None

**LAND TO BE INCLUDED ON CERTIFICATE**

<table>
<thead>
<tr>
<th>S</th>
<th>T</th>
<th>R</th>
<th>NE1/4</th>
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**LAND IRRIGATED—YEAR OF RECORD**: 1985

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<th>R</th>
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<th>NW1/4</th>
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</thead>
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<td>19</td>
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<td>31/4</td>
<td>31/4</td>
<td>31/4</td>
<td>12.5</td>
</tr>
</tbody>
</table>

**APPLICATION OF WATER**

- **Year of Record**: 1985  
- **Hours Pumped**: 1850  
- **Quantity**: 209 AF

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

**For D.W.R. Use Only**

- **Year of Record**: 1985  
- **Extension of time requested**: Yes

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

- **Ac. Ft. Applied**: 1850 hrs. x 614 g.p.m. x 4.419 = 209 AF
- **Acres of "Approved" Land irrigated**: 7.03
- **Ac. Ft. on "Approved" Land**: 209 AF

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

**Proration Calculations**:  
- **Perfection**: 615 g.p.m. Eff. Perfected Quantity: 18.8 AF

**DWR 101712**

**WATER RESOURCES RECEIVED**  
**JUN 29 2015**
GENERAL INFORMATION ON IRRIGATION SYSTEM:

[ ] Center Pivot  [ ] High Pressure  [ ] Low Pressure
Manufacturer: **Olson**  Model: **103 P**  Serial No: **3943**
Drive: **Electric**  Length of Pivot Arm:  
Design Pressure-Pivot:  p.s.i.  Operating Pressure-Pivot:  p.s.i.
End Gun?  **YES**  End Gun Rating:  g.p.m. **Toro**
Is end gun operating during test?  **YES**

[ ] Gravity Irrigation (show test set on sketch)
Number of gates open  
Normal Pipe Size  
Pressure at pump:  p.s.i.
[ ] Other  Type:  
Manufacturer:  
Model:  
Serial No:  
Unusual Conditions/Other Info: 

POWER UNIT INFORMATION:

Manufacturer:  **Ford**  Model No:  **360**
Serial No:  
Fuel: **Nat Gas**  Rated RPM:  

PUMP INFORMATION:

Manufacturer:  **Sac. Har**  Model No:  **12 15 #4**
Serial No:  **667 22157**  Type: **Vertical Turbine**  No. stages:  

GEAR HEAD INFORMATION:

Manufacturer:  **Randolph**  Model No:  **G 60**
Serial No:  **63029**  Drive: **Right Angle**  Ratio: **5:1**

WELL INFORMATION:  Records not available from owner's representative.
Date Drilled: prior to Jan 1974  Original Depth:  ft.  Static Water Level When Drilled:  ft.
Tape Down Possible?  **YES**  Water Level Measurement Tube?  **NO**
Measuring Point:  ft. above or below L.S.D.

ADDITIONAL REQUIREMENTS:

Meter Required?  **NO**  Make of Meter:  
Meter Model No:  
Serial No:  
Size:  
Is Meter Installed Properly?  
Chemical Injection System?  **YES**  Check Valve?  **YES**  Low Pressure Breaker?  **YES**
Vacuum Breaker?  **YES**  Are these anti-pollution devices installed properly?  **YES**
If chemicals are injected into system, please attach sketch of system.
SKETCH OF ACTUAL PLACE OF USE, LOCATION OF DIVERSION WORKS, AND DISTRIBUTION SYSTEM.
(Indicate distribution system layout at time of field test).

TEST OF DIVERSION RATE:

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

Test No. 1—Normal Conditions
R.P.M. POWER UNIT: 2206
R.P.M. PUMP UNIT: 1755
Pressure at Pump: 47 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

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<th>Velocity (fps)</th>
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<td>2. ____________</td>
</tr>
<tr>
<td>2. ____________</td>
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<td>9. ____________</td>
</tr>
<tr>
<td>9. ____________</td>
<td>10. ____________</td>
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Total Avg. G.P.M. ____________ ____________ ____________

Propeller Meter Test
Manufacturer: ____________ Model: ____________ Serial No.: ____________

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<tr>
<th>Meter Diameter</th>
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<th>Beginning</th>
<th>Difference</th>
<th>Time</th>
<th>Rate</th>
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<tbody>
<tr>
<td>inches</td>
<td>gal.</td>
<td>gal.</td>
<td>gal.</td>
<td>min.</td>
<td>gpm</td>
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</table>

Other Flow Meter
Use Supplemental Sheet (include meter identification, data and calculations):
FUEL RECORDS:

Electricity

<table>
<thead>
<tr>
<th>Supplier</th>
<th>Type</th>
<th>Serial No.</th>
</tr>
</thead>
</table>

K ______ watt/rev | r ______ revolutions | t ______ seconds |

Rate = Kr \times 3.6 = ______ kwhr | Hours = ______ kwh/hr |

Other Fuels

Type: Natural Gas | Supplier: Kansas-Nebraska |

Rate = Volume (test) = ______ | time |

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

TABULATION OF WATER USE:

<table>
<thead>
<tr>
<th>Year</th>
<th>Hours Pumped (hr)</th>
<th>Tested Pumping Rate (gpm)</th>
<th>Water Used (AF)</th>
<th>Acres Irrigated</th>
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<td>1164</td>
<td>1000</td>
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<tr>
<td></td>
<td>1416</td>
<td>600</td>
<td></td>
<td>124</td>
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</table>

Should be 2000 hour → 1152 600 124

Should be 1046 hrs → 2200 800 125

*1984 | 1750 | 775 | 125 |

*1985 | 1850 | 614 | 125 |

*1986 | 114 | 125 |

Retained from test on 9/30/66

F obtained from WR seal to as from Jerry Weaver

Indicate Year of Record with (*)

Source of Information: Searl, Elks

Crops Irrigated: this year Soybeans

Year of record: Alfalfa

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

WATER RESOURCES RECEIVED

JUN 29 2015

KS DEPT OF AGRICULTURE

Person present at test: Kent Noller

Water Use Correspondent: Kyle Kelbeck

Conducted by: Greg Ebbert

Approved by: [Signature]

HAYS000657

SCANNED
FUEL RECORDS:

Electricity Supplier __________

Meter Manufacturer __________ Type __________ Serial No. __________

K ______ watt/rev t ______ revolutions t ______ seconds

Rate = Kr x 3.6 ______ kw/hr Hours = ______ kw-hr ______

Other Fuels

Type ___________________ Natural Gas Supplier Kansas-Nebraska

Rate = Volume (test) ______ time

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

TABULATION OF WATER USE:

<table>
<thead>
<tr>
<th>Year</th>
<th>Hours Pumped (hr)</th>
<th>Tested Pumping Rate (gpm)</th>
<th>Water Used (AF)</th>
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<td>775*</td>
<td>125*</td>
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<tr>
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</table>

* obtained from test on 9/24/86

F obtained from WR card (s) from Jerry Weaver

Indicate Year of Record with (*)

Source of Information: Stafford files

Crops Irrigated: this year Soybeans Year of record Alfalfa

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

Should be 2000 hours ->

Should be 1046 hrs ->

WATER RESOURCES RECEIVED

KS DEPT OF AGRICULTURE

Person present at test: Kent Nader

Water Use Correspondent: Kyle Kellogg

Irrigation Manager:__

KS DEPT OF AGRICULTURE

Conducted by: Roy Eckert

Approved by:___ Date: 10/1/86

Date: 1/15/87

HAYS000058

SCANNED
APPLICATION NO: 21729  NAME: Connecticut General Life Insurance
NC NEX

COLLINS METER TEST

Collins Meter No. ___183___ Meter Calibration Factor 9559
Pipe Inside Diameter (inches) 7.34 Flow Rate Factor 145.4
Test Pressure (psi) 47 Test RPM, Pump 1765

Description of Test Location In horizontal pipe between_______pump and pivot_______

TEST DATA: Check, Initial 4.48 Reversed 4.43

<table>
<thead>
<tr>
<th>Meter Setting From</th>
<th>Initial</th>
<th>Left Side of Pipe</th>
<th>Reversed</th>
<th>Right Side of Pipe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center of Pipe</td>
<td></td>
<td>(or Front Side if Vertical Test)</td>
<td></td>
<td>(or Back Side if Vertical Test)</td>
</tr>
<tr>
<td>1/2'</td>
<td>4.50</td>
<td>4.49</td>
<td>4.51</td>
<td>4.52</td>
</tr>
<tr>
<td>2 3/4</td>
<td>4.40</td>
<td>4.47</td>
<td>4.50</td>
<td>4.47</td>
</tr>
<tr>
<td>3 1/2'</td>
<td>4.38</td>
<td>4.17</td>
<td>4.23</td>
<td>4.30</td>
</tr>
</tbody>
</table>

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

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

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

Reviewed By: [Signature]

PUMPING PLANT TESTING, INC.
Professional Engineer

WATER RESOURCES RECEIVED
HAYS009659

JUN 29 2015
SCANNED
APPLICATION NO: 21,729

NAME: CONNECTICUT GENERAL LIFE INSURANCE CO, INC.

NOTES ON CHOOSING A YEAR OF RECORD

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

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

WATER RESOURCES RECEIVED

JUN 29 2015

KS DEPT OF AGRICULTURE

PUMPING PLANT TESTING, INC.

Reviewed by:  Professional Engineer
POINTS OF DIVERSION AND SECTION CORNERS

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

The point of diversion location on the photo is correct. The photos were taken at a time when the diversion points were visible. The problem is in our ability to correctly describe the diversion points in relation to section corners.
APPLICATION NO: 21729

NAME: CONNECTICUT GENER

SUMMARY SHEET
APPLICATION OF WATER

Normal Operating Flow Rate (GPM)

<table>
<thead>
<tr>
<th>NW</th>
<th>NE</th>
<th>SE</th>
<th>SW</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>599</td>
<td>414</td>
<td>718</td>
<td>697</td>
<td>2697</td>
</tr>
</tbody>
</table>

Hours of Operation on "Approved" Land

<table>
<thead>
<tr>
<th>Approved Rate or Less</th>
</tr>
</thead>
<tbody>
<tr>
<td>1850 1850 1850 1850</td>
</tr>
</tbody>
</table>

Ac-Ft Applied on "Approved" Land

<table>
<thead>
<tr>
<th>Approved Rate or Less</th>
</tr>
</thead>
<tbody>
<tr>
<td>204 209 244.6 238.1</td>
</tr>
</tbody>
</table>

Acres of "Approved" Land Irrigated

<table>
<thead>
<tr>
<th>Approved Rate or Less</th>
</tr>
</thead>
<tbody>
<tr>
<td>130 125 125 130</td>
</tr>
</tbody>
</table>

Ac-Ft per Acre Irrigated

<table>
<thead>
<tr>
<th>Approved Rate or Less</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.57 1.67 1.96 1.83 1.76</td>
</tr>
</tbody>
</table>

Ac-Ft Applied at "Approved" Rate or Less

<table>
<thead>
<tr>
<th>Approved Rate or Less</th>
</tr>
</thead>
<tbody>
<tr>
<td>895.7</td>
</tr>
</tbody>
</table>

SUBJECT TO LIMITATION OF 1.5 Ac-Ft/Acre of "APPROVED" LAND IRRIGATED (765 Ac-Ft)

PUMPING PLANT TESTING, INC.

Reviewed by: [Signature]
Professional Engineer
EXHIBIT F

FIELD INSPECTION REPORT

Application No. 21729 Date 9/29/86

Test 3 of 6 Diversion points

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

Current Landowner: Connecticut General Life Insurance Co., Affiliates

Address: Box 1463 North Platte, NE 69103 Ann. Jerry Weaver

Water Use Classification: 1. Domestic ( ) 2. Industrial ( ) 3. Irrigation (X)

Groundwater (X) Drainage Basin: Arkansas River

Surface Water ( ) Stream

Authorized Point of Diversion: [well NE1/4, SW1/4, NW1/4, Sec. 29, T. 25, R. 19]

Approximately ft. North and ft. West of SE corner of Sec.

Actual Point of Diversion: [well NE1/4, SW1/4, NW1/4, Sec. 29, T. 25, R. 19]

Approximately ft. North and ft. West of SE corner of Sec. 29

How were distances determined? Scaled from ASCS photo

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

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

Perfection Date: Dec. 31, 1971

Other applications covering land and/or point of diversion: None

(Includes discussion of overlapping files in remarks section)

LAND TO BE INCLUDED ON CERTIFICATE:

<table>
<thead>
<tr>
<th>S</th>
<th>T</th>
<th>R</th>
<th>NE1/4</th>
<th>NW1/4</th>
<th>SW1/4</th>
<th>SE1/4</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>25</td>
<td>19</td>
<td>NE1/4</td>
<td>NW1/4</td>
<td>SW1/4</td>
<td>SE1/4</td>
</tr>
<tr>
<td>32.5</td>
<td>32.5</td>
<td>32.5</td>
<td>32.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL ACRES</td>
<td>500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

LAND IRRIGATED—YEAR OF RECORD: 1985

<table>
<thead>
<tr>
<th>S</th>
<th>T</th>
<th>R</th>
<th>NE1/4</th>
<th>NW1/4</th>
<th>SW1/4</th>
<th>SE1/4</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>25</td>
<td>19</td>
<td>NE1/4</td>
<td>NW1/4</td>
<td>SW1/4</td>
<td>SE1/4</td>
</tr>
<tr>
<td>32.5</td>
<td>32.5</td>
<td>32.5</td>
<td>32.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL ACRES</td>
<td>130</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

APPLICATION OF WATER: RECEIVED

Year of Record: 1985 Hours Pumped: 1850 or Quantity: 204 AF

Normal Operating C.P.M. 3/3

Maximum Operating C.P.M. 1/3

Year of Record: 1985

Extension of time requested: Yes No

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

Ac. Ft. Applied = 1850 hrs. x 325 g.p.m. x 4.319 24 x 1000 = 110 AF

Acres of "Approved" Land irrigated: 1.25

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

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

Peroration Calculations: 3.25 x 1984 = 6529 AF

Perfected Rate: 3.25 g.p.m. Perfected Quantity: 10.2 AF

Completed by Douglas E. Bush 3-17-87

Page 31 of 79

Rev. March 1986

SCANNED
### GENERAL INFORMATION ON IRRIGATION SYSTEM:

- **Center Pivot**
- **High Pressure**
- **Low Pressure**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model</th>
<th>Serial No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oslon</td>
<td>103</td>
<td>3808</td>
</tr>
</tbody>
</table>

- **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. Volunteer

- Is end gun operating during test? Yes

- **Gravity Irrigation** (show test set on sketch)

<table>
<thead>
<tr>
<th>Number of gates open</th>
<th>Normal Pipe Size</th>
<th>Pressure at pump</th>
<th>p.s.i.</th>
</tr>
</thead>
</table>

- **Other** Type

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model</th>
<th>Serial No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Unusual Conditions/Other Info.**

### POWER UNIT INFORMATION:

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model No.</th>
<th>HP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ford</td>
<td>300</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Serial No.</th>
<th>Fuel</th>
<th>Rated RPM</th>
</tr>
</thead>
<tbody>
<tr>
<td>11837 K-29-76</td>
<td>Natural Gas</td>
<td></td>
</tr>
</tbody>
</table>

### PUMP INFORMATION:

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model No.</th>
<th>Rated RPM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Land Roller</td>
<td>10CM</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Serial No.</th>
<th>Type</th>
<th>No. stages</th>
</tr>
</thead>
<tbody>
<tr>
<td>C78426</td>
<td>Vertical Turbine</td>
<td></td>
</tr>
</tbody>
</table>

### GEAR HEAD INFORMATION:

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model No.</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amarillo</td>
<td>5408</td>
<td>1/1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Serial No.</th>
<th>Drive</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>9662</td>
<td>Right Angle</td>
<td></td>
</tr>
</tbody>
</table>

### WELL INFORMATION:

- **No records available from owner representative.**

- **Date Drilled:** Jan 1974
- **Original Depth:** ft.
- **Static Water Level When Drilled:** ft.
- **Tape Down Possible?** Yes
- **Water Level Measurement Tube?** No
- **Measuring Point:** ft. above or below L.S.D.

### ADDITIONAL REQUIREMENTS:

- **Is Meter Installed Properly?**
- **Make of Meter**
- **Size**
- **Chemical Injection System?** Yes
- **Check Valve?** Yes
- **Low Pressure Drain?** No
- **Vacuum Breaker?** Yes

If chemicals are injected into system, please attach separate 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:

Location of test: In vertical pipe inside pivot stand

Pipe Diameter (I.D.) 7 3/4 inches

<table>
<thead>
<tr>
<th>Test No. 1—Normal Conditions</th>
<th>Test No. 2—Maximum Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>R.P.M. POWER UNIT 1670</td>
<td>R.P.M. POWER UNIT 1700</td>
</tr>
<tr>
<td>R.P.M. PUMP UNIT 1672</td>
<td>R.P.M. PUMP UNIT 1700</td>
</tr>
<tr>
<td>Pressure at Pump 40 psi</td>
<td>Pressure at Pump 10 psi</td>
</tr>
</tbody>
</table>

Jacuzzi Meter Test

Meter Identification No.

Area Constant K = 2.45 x I.D. =

<table>
<thead>
<tr>
<th>Velocity (fps)</th>
<th>Velocity (fps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1.</td>
</tr>
<tr>
<td>2.</td>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
<td>3.</td>
</tr>
<tr>
<td>4.</td>
<td>4.</td>
</tr>
<tr>
<td>5.</td>
<td>5.</td>
</tr>
<tr>
<td>6.</td>
<td>6.</td>
</tr>
<tr>
<td>7.</td>
<td>7.</td>
</tr>
<tr>
<td>8.</td>
<td>8.</td>
</tr>
<tr>
<td>9.</td>
<td>9.</td>
</tr>
<tr>
<td>10.</td>
<td>10.</td>
</tr>
</tbody>
</table>

Total

Avg.

G.P.M.

WATER RESOURCES RECEIVED

JUN 29 2015

KS DEPT OF AGRICULTURE

HAYS000642

SCANNED
FUEL RECORDS:

☐ Electricity  Supplier __________________________

Meter Manufacturer __________________________ Type __________________________ Serial No. __________________________

K ______ watt/rev  r ______ revolutions  t ______ seconds

Rate = \( \frac{K \times 3.6}{t} \) = _______ kw/hr  Hours = _______ kw-hr = _______

☐ Other Fuels  Type Natural Gas  Supplier Kansas-Nebraska

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

How was the test volume determined?  NOT DETERMINED  Engine not an individual meter

TABULATION OF WATER USE:

<table>
<thead>
<tr>
<th>Year</th>
<th>Hours Pumped (hr)</th>
<th>Tested Pumping Rate (gpm)</th>
<th>Water Used (AF)</th>
<th>Acres Irrigated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1976</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1977</td>
<td>887</td>
<td>1000</td>
<td></td>
<td>130</td>
</tr>
<tr>
<td>1978</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1979</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>2100</td>
<td>400</td>
<td></td>
<td>130</td>
</tr>
<tr>
<td>1981</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1982</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1983</td>
<td>2200             ( \text{F} )</td>
<td>700 ( \text{F} )</td>
<td>126 ( \text{F} )</td>
<td></td>
</tr>
<tr>
<td>1984</td>
<td>1750             ( \text{F} )</td>
<td>500 ( \text{F} )</td>
<td>130 ( \text{F} )</td>
<td></td>
</tr>
<tr>
<td>1985</td>
<td>1850             ( \text{F} )</td>
<td>313 ( \text{F} )</td>
<td>130 ( \text{F} )</td>
<td></td>
</tr>
<tr>
<td>1986</td>
<td></td>
<td>313 ( \text{F} )</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* obtained from test on 9/10/86

F obtained from WIR sent to us from Terry Weaver

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

Crops Irrigated: this year  Alfalfa  Year of record  Alfalfa

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

WATER RESOURCES RECEIVED  JUN 29 2015

KS DEPT OF AGRICULTURE

Person present at test  Kent Naber  Irrigation Manager

Water Use Correspondent  Lyle Kolbeck  Spearville, KS 67876  316-385-2853

Conducted by  Hays Water Resources  Date 10/11/86

Approved by  Hays Water Resources  Date 1/15/87  HAY000643
### COLLINS METER TEST

**Collins Meter No.** 1-83  
**Meter Calibration Factor** 1.9557  
**Pipe Inside Diameter (inches)** 7.34  
**Flow Rate Factor** 145.4

**Test Pressure (psi)** 40  
**Test RPM, Pump** 1120

**Description of Test Location:** Vertical pipe inside pivot extend.

### TEST DATA

<table>
<thead>
<tr>
<th>Meter Setting From Center of Pipe</th>
<th>Velocity Left Side of Pipe</th>
<th>Reversed Velocity Right Side of Pipe</th>
</tr>
</thead>
<tbody>
<tr>
<td>19/16</td>
<td>4.31</td>
<td>4.62</td>
</tr>
<tr>
<td>2 3/4</td>
<td>3.99</td>
<td>4.01</td>
</tr>
<tr>
<td>3 9/16</td>
<td>3.65</td>
<td>3.73</td>
</tr>
</tbody>
</table>

Average Velocity of Water = Sum of Vel. ÷ 12 = \( \frac{4.3075}{12} = 0.36075 \) 

Corrected Ave. Vel. = (Ave. Vel.) \( \times \) (Calibration Factor) = \( \frac{4.3075}{12} \times 1.9557 = 0.812 \)

Flow Rate = (Corrected Ave. Vel.) \( \times \) (Flow Rate Factor) = \( 0.812 \times 145.4 = 119.9 \) GPM

---

WATER RESOURCES RECEIVED

PUMPING PLANT TESTING, **JUN 29 2015**

Reviewed By: **Michael West**,  
KS DEPT OF AGRICULTURE

RECEIVED  
Professional Engineer

**JUN 19 1987**

Page 35 of 79

FIELD OFFICE
DIVISION OF WATER RESOURCES

SCANNED
APPLICATION NO: 21729  NAME: Connecticut General Life Insurance
NE 3/4, SW 3/4, NW 3/4 pumping alone

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) 10  Test RPM, Pump 1700

Description of Test Location: In vertical pipe inside pivot stand

<table>
<thead>
<tr>
<th>TEST DATA: Q Check, Initial Checked Previously Reversed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meter Setting From Center of Pipe</td>
</tr>
<tr>
<td>-----------------------------------</td>
</tr>
<tr>
<td>1 3/4</td>
</tr>
<tr>
<td>2 3/4</td>
</tr>
<tr>
<td>3 3/4</td>
</tr>
</tbody>
</table>

Average Velocity of Water = Sum of Vel. ÷ 12 = 2.25
Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 2.25 x 9559 = 215
Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 215 x 145.4 = 313 GPM

WATER RESOURCES
RECEIVED

PUMPING PLANT TESTING, INC.

Reviewed By: [Signature]
KS DEPT. OF AGRICULTURE
Professional Engineer

HAYS000645

Page 36 of 79
APPLICATION NO: 21,729

NAME: CONNECTICUT GENERAL LIFE INSURANCE CO, INC.

NOTES ON CHOOSING A YEAR OF RECORD

This development was used by several owners since its inception in 1975, with owners from Europe and around the U.S. at various times. A state of confusion has existed in the crop production report. All of the water use and equipment records have been either destroyed or lost, and the systems and pumping plant components have been interchanged over the years.

Since late 1983, Connecticut General has made a diligent effort to keep good records. There are, it would seem reasonable to use the years since 1983 in choosing a year of record.
EXHIBIT G

DIVISION OF WATER RESOURCES—KANSAS STATE BOARD OF AGRICULTURE

FIELD INSPECTION REPORT

Test 2 of 6 Diversion points

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

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

Current Landowner Connecticut General Life Insurance Co. Affiliates

Address: 1162 North Plate, NE 69103  Attn: Jerry Weaver

Additional landowners and addresses identified in remarks section.

Water Use Classification: 1. Domestic ( )  2. Industrial ( )  3. Irrigation (X)

Groundwater (X) Drainage Basin: Arkansas River

Surface Water ( ) Stream

Authorized Point of Diversion: 1/2 well NC NW ¼

Approximately 12 ft. North and 50 ft. West of SE corner of Sec.

Actual Point of Diversion: 1/2 well NC NW ¼

Approximately 3782 ft. North and 360 ft. West of SE corner of Sec. 29

How were distances determined? Scaled from RSCS photo

"Approved" Quantity 1000 AF  "Approved" Diversion Rate 2.900 g.p.m. (6.16 c.f.s.)

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

Perfection Date Dec. 31, 1981

Other applications covering land and/or point of diversion None

(Land irrigated—year of record)

LAND TO BE INCLUDED ON CERTIFICATE:

<table>
<thead>
<tr>
<th>ST</th>
<th>TR</th>
<th>NW ¼</th>
<th>NW ¼</th>
<th>NW ¼</th>
<th>NW ¼</th>
<th>NW ¼</th>
<th>NW ¼</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>25</td>
<td>19</td>
<td>500</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

LAND IRRIGATED—YEAR OF RECORD 1985

<table>
<thead>
<tr>
<th>ST</th>
<th>TR</th>
<th>NW ¼</th>
<th>NW ¼</th>
<th>NW ¼</th>
<th>NW ¼</th>
<th>NW ¼</th>
<th>NW ¼</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>25</td>
<td>19</td>
<td>130</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

APPLICATION OF WATER:

Year of Record 1985  Hours Pumped 1750  or Quantity 204 AF

Normal Operating C.P.M. 5.99  Equiv. c.f.s. 1.33

Individual C.P.M. 2.63  Equiv. c.f.s. 0.59

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Year of Record 1985  Extension of time requested: Yes  No

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

Ac. Ft. Applied 1850 hrs. x 2.24 g.p.m. x 4.419 = 99 AF

Acres of "Approved" Land irrigated 12.5

Ac. Ft. on "Approved" Land 94 0.19

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

<table>
<thead>
<tr>
<th>Hours</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>275</td>
<td>= 86 AF</td>
</tr>
</tbody>
</table>

Proportion Calculations:

1. 263 gpm x 2.24 = 595.9 gpm
2. 579 gpm x 2.24 = 1298.5 gpm
3. 324 gpm x 2.24 = 731.6 gpm

Perfection Calculations:

1. 324 gpm x 18.4 hr.  (max allowed for irrigating 12.5 acres) = 86 AF

Revised March 1986

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DWB-1017

Received

JUN 29 2015

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WATER RESOURCES RECEIVED

DIVISION OF WATER RESOURCES

JAN 21 1987

HAYS000647

RECEIVED

JUN 19 1987

94 AF

99 AF

86 AF

9.4

274 g.p.m.

18.4 hours

Douglas E. Bush 2-19-87

SCANNED
**GENERAL INFORMATION ON IRRIGATION SYSTEM:**

- **Center Pivot**
- **Low Pressure**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model</th>
<th>Serial No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oiga</td>
<td>10</td>
<td>3808</td>
</tr>
</tbody>
</table>

- **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.
- **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**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model</th>
<th>Serial No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>__________</td>
<td>__________</td>
<td>__________</td>
</tr>
</tbody>
</table>

**Unusual Conditions/Other Info.**

---

**POWER UNIT INFORMATION:**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model</th>
<th>HP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ford</td>
<td>4</td>
<td>__</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Serial No.</th>
<th>Fuel</th>
<th>Rated RPM</th>
</tr>
</thead>
<tbody>
<tr>
<td>13811</td>
<td>Natural Gas</td>
<td>__</td>
</tr>
</tbody>
</table>

**PUMP INFORMATION:**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model</th>
<th>Rated RPM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fairbanks-Morse</td>
<td>10</td>
<td>__</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Serial No.</th>
<th>Type</th>
<th>No. stages</th>
</tr>
</thead>
<tbody>
<tr>
<td>6124647x</td>
<td>Vertical Turbine</td>
<td>5</td>
</tr>
</tbody>
</table>

**GEAR HEAD INFORMATION:**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Randolph</td>
<td>F60</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Serial No.</th>
<th>Drive</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>62055</td>
<td>Right Angle</td>
<td>6:1</td>
</tr>
</tbody>
</table>

**WELL INFORMATION:**

- **Date Drilled**: prior to Jan 1974
- **Original Depth**: __ ft.
- **Static Water Level When Drilled**: __ ft.
- **Tape Down Possible?**: __________
- **Measuring Point**: __________ ft. above or below L.S.D.
- **Water Level Measurement Tube?**: __________

**ADDITIONAL REQUIREMENTS:**

- **Meter Required?**: No
- **Make of Meter**: __________
- **Meter Model No.**: __________
- **Serial No.**: __________
- **Size**: __________
- **Is Meter Installed Properly?**: __________
- **Chemical Injection System?**: Yes
- **Check Valve?**: Yes
- **Low Pressure Drain?**: No
- **Vacuum Breaker?**: No
- **Are these anti-pollution devices installed properly?**: __________

**Chemicals are injected into system, please attach sketch of system.**
TEST OF DIVERSION RATE:

Length of time well has been operating prior to test: __________

Location of test: __________

Pipe Diameter (I.D.) __________ inches

<table>
<thead>
<tr>
<th>Test No. 1—Normal Conditions</th>
<th>Test No. 2—Maximum Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>R.P.M. POWER UNIT 1920</td>
<td>R.P.M. POWER UNIT 2029</td>
</tr>
<tr>
<td>R.P.M. PUMP UNIT 1650</td>
<td>R.P.M. PUMP UNIT 1670</td>
</tr>
<tr>
<td>Pressure at Pump 40 psi</td>
<td>Pressure at Pump 9 psi</td>
</tr>
</tbody>
</table>

☐ Jacuzzi Meter Test

Meter Identification No. __________

Area Constant $K = 2.45 \times 1.0^4$ = __________

$$Q \text{ (gpm)} = VK$$

<table>
<thead>
<tr>
<th>Velocity (fps)</th>
<th>Velocity (fps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1.</td>
</tr>
<tr>
<td>2.</td>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
<td>3.</td>
</tr>
<tr>
<td>4.</td>
<td>4.</td>
</tr>
<tr>
<td>5.</td>
<td>5.</td>
</tr>
<tr>
<td>6.</td>
<td>6.</td>
</tr>
<tr>
<td>7.</td>
<td>7.</td>
</tr>
<tr>
<td>8.</td>
<td>8.</td>
</tr>
<tr>
<td>9.</td>
<td>9.</td>
</tr>
<tr>
<td>10.</td>
<td>10.</td>
</tr>
</tbody>
</table>

Total __________________________

Avg. __________________________

G.P.M. __________________________

☐ Propeller Meter Test

Manufacturer __________________________ Model __________________________ Serial No. __________________________

Meter Diameter __________ inches

<table>
<thead>
<tr>
<th>Ending gal.</th>
<th>Ending gal.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning gal.</td>
<td>Beginning gal.</td>
</tr>
<tr>
<td>Difference gal.</td>
<td>Difference gal.</td>
</tr>
<tr>
<td>Time min.</td>
<td>Time min.</td>
</tr>
<tr>
<td>Rate gpm</td>
<td>Rate gpm</td>
</tr>
</tbody>
</table>

☐ Other Flow Meter

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

WATER RESOURCES RECEIVED

JUN 29 2015

KS DEPT OF AGRICULTURE

Page 40 of 79
FUEL RECORDS:

Electricity Supplier: ____________

Meter Manufacturer: ____________

Type: ____________ Serial No.: ____________

K. ______ watt/rev

r. ______ revolutions

1. ______ seconds

Rate = Kr x 3.6 ______ kw/hr

Hours = ______ kw-hr = ______

Other Fuels

Type: ____________ Supplier: ____________ Kansas - Nebraska

Rate = Volume (test) = ______

How was the test volume determined? Not determined. Pulse meter is used for many wells.

TABULATION OF WATER USE:

<table>
<thead>
<tr>
<th>Year</th>
<th>Hours Pumped (hr)</th>
<th>Tested Pumping Rate (gpm)</th>
<th>Water Used (AF)</th>
<th>Acres Irrigated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>1584</td>
<td>1000</td>
<td></td>
<td>125</td>
</tr>
<tr>
<td>1976</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1977</td>
<td>889</td>
<td>1000</td>
<td></td>
<td>130</td>
</tr>
<tr>
<td>1978</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1979</td>
<td>1224</td>
<td>743</td>
<td></td>
<td>125</td>
</tr>
<tr>
<td>1980</td>
<td>1416</td>
<td>743</td>
<td></td>
<td>125</td>
</tr>
<tr>
<td>1981</td>
<td>1152</td>
<td>743</td>
<td></td>
<td>125</td>
</tr>
<tr>
<td>1982</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1983</td>
<td>2200†</td>
<td>700†</td>
<td></td>
<td>126†</td>
</tr>
<tr>
<td>1984</td>
<td>1750†</td>
<td>500†</td>
<td></td>
<td>130†</td>
</tr>
<tr>
<td>1985</td>
<td>1950†</td>
<td>263†</td>
<td></td>
<td>130†</td>
</tr>
<tr>
<td>1986</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* obtained from test on 9/30/86
† obtained from WSR sent to us from Jerry Weaver

Indicate Year of Record with (*)

Source of Information: Stored Files

Crops Irrigated: this year: AI, Sa

Year of record: AI-1983

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

WATER RESOURCES RECEIVED

JUN 29 2015

KS DEPT OF AGRICULTURE

Person present at test: Kent Maker

Irrigation Manager

Water Use Correspondent: Lyle Kelbeeck

Spearville, KS 67576 316-285-2803

Conducted by: Ray Eskel

Approved by: Miriam West

Date: 10/11/86

Date: 1/18/87

HAYS000650

SCANNE
APPLICATION NO: 21729 NAME: Connecticut General Life Insurance
NC NWW pumps alone

COLLINS METER TEST

Collins Meter No. 1-83 Meter Calibration Factor .9559
Pipe Inside Diameter (inches) 73/4 Flow Rate Factor 145.4
Test Pressure (psi) 9 Test RPM, Pump 1690

Description of Test Location In vertical pipe inside
pivot stand

TEST DATA: Q Check, Initial Reversed

<table>
<thead>
<tr>
<th>Meter Setting From</th>
<th>Velocity</th>
<th>Reversed Velocity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center of Pipe</td>
<td>Left Side of Pipe</td>
<td>Right Side of Pipe</td>
</tr>
<tr>
<td></td>
<td>(or Front Side if Vertical Test)</td>
<td>(or Back Side if Vertical Test)</td>
</tr>
<tr>
<td>1 3/4</td>
<td>2.10</td>
<td>2.00</td>
</tr>
<tr>
<td>2 3/4</td>
<td>2.00</td>
<td>1.90</td>
</tr>
<tr>
<td>3 3/4</td>
<td>1.85</td>
<td>1.72</td>
</tr>
</tbody>
</table>

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

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

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 1.81 x 145.4 = 263 GPM
APPLICATION NO: 21729  NAME: Connecticut General Life Insurance

Collins Meter Test

Collins Meter No. 1-83  Meter Calibration Factor 1.9559
Pipe Inside Diameter (inches) 7/32  Flow Rate Factor 145.4
Test Pressure (psi) 40  Test RPM, Pump 1,670 (NE, SV, NWX)

Description of Test Location
In vertical pipe, inside front stand

TEST DATA:  Check, Initial 4.56  Reversed 4.54

<table>
<thead>
<tr>
<th>Meter Setting From Center of Pipe</th>
<th>Velocity Left Side of Pipe (or Front Side if Vertical Test)</th>
<th>Velocity Right Side of Pipe (or Back Side if Vertical Test)</th>
</tr>
</thead>
<tbody>
<tr>
<td>19/64</td>
<td>4.31  4.21</td>
<td>4.62  4.66</td>
</tr>
<tr>
<td>2 3/4</td>
<td>3.99  4.01</td>
<td>4.79  4.75</td>
</tr>
<tr>
<td>3 7/64</td>
<td>3.65  3.73</td>
<td>4.34  4.63</td>
</tr>
</tbody>
</table>

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

Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 4.3075 x 1.9559 = 4.12

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

Reviewed By: [Signature]

WATER RESOURCES
RECEIVED
PUMPING PLANT TESTING, INC.
JAN 2 1987
JUN 29 2015
Professional Engineer
KS DEPT OF AGRICULTURE

HAYS000652

SCANNED
APPLICATION NO: 21,729

NAME: CONNECTICUT GENERAL LIFE INSURANCE CO, INC.

NOTES ON CHOOSING A YEAR OF RECORD

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

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

**DIVISION OF WATER RESOURCES—KANSAS STATE BOARD OF AGRICULTURE**

**FIELD INSPECTION REPORT**

Test 6 of 6 Diversion points

<table>
<thead>
<tr>
<th>Application No.</th>
<th>21729</th>
<th>Date</th>
<th>11/5/66</th>
</tr>
</thead>
<tbody>
<tr>
<td>First/Field Office</td>
<td>Pumping Plant Testing Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inspector</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field Area No.</td>
<td>2</td>
<td>G.M.D. No.</td>
<td>5</td>
</tr>
<tr>
<td>Current Landowner</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Address</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Use Classification</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Groundwater</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surface Water</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authorized Point of Diversion</td>
<td>lat.11 NE 1/4, SW 1/4 Sec. 29, T.25, R.19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximately</td>
<td>ft. North and</td>
<td>ft. West of SE corner of Sec.</td>
<td></td>
</tr>
<tr>
<td>Actual Point of Diversion</td>
<td>lat.11 NE 1/4, SW 1/4 Sec. 29, T.25, R.17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximately</td>
<td>ft. North and</td>
<td>ft. West of SE corner of Sec.</td>
<td></td>
</tr>
<tr>
<td>How were distances determined?</td>
<td>caled from U.S.G.S. photo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Approved&quot; Quantity</td>
<td>1000 AF</td>
<td>&quot;Approved&quot; Diversion Rate</td>
<td>2500 g.p.m. (6.46 c.f.s.)</td>
</tr>
<tr>
<td>Priority Date</td>
<td>Jan.2, 1974</td>
<td>Approval of Application Date</td>
<td>Feb. 27, 1976</td>
</tr>
<tr>
<td>Perfection Date</td>
<td>Dec. 31, 1981</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other applications covering land and/or point of diversion</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**LAND TO BE INCLUDED ON CERTIFICATE:**

<table>
<thead>
<tr>
<th>Section</th>
<th>T</th>
<th>R</th>
<th>NE%</th>
<th>NW%</th>
<th>SW%</th>
<th>SE%</th>
<th>TOTAL ACRES</th>
</tr>
</thead>
<tbody>
<tr>
<td>29 25 19</td>
<td>31</td>
<td>31</td>
<td>31</td>
<td>31</td>
<td>31</td>
<td>31</td>
<td>500</td>
</tr>
</tbody>
</table>

**LAND IRRIGATED—YEAR OF RECORD | 1985**

<table>
<thead>
<tr>
<th>Section</th>
<th>T</th>
<th>R</th>
<th>NE%</th>
<th>NW%</th>
<th>SW%</th>
<th>SE%</th>
<th>TOTAL ACRES</th>
</tr>
</thead>
<tbody>
<tr>
<td>29 25 19</td>
<td>33</td>
<td>33</td>
<td>32</td>
<td>32</td>
<td>33</td>
<td>33</td>
<td>130</td>
</tr>
</tbody>
</table>

**APPLICATION OF WATER:**

Year of Record | 1985 | Hours Pumped | 1850 |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow from individual well with both Normal Operating G.P.M.</td>
<td>425</td>
<td>Equiv. c.f.s.</td>
<td>1.47</td>
</tr>
<tr>
<td>well pumping area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum Operating G.P.M.</td>
<td>6.31</td>
<td>Equiv. c.f.s.</td>
<td>1.406</td>
</tr>
</tbody>
</table>

**FOR D.W.R. USE ONLY**

Year of Record | 1985 | Extension of time requested: Yes |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total No. of Hours on land covered by this application</td>
<td>1850</td>
<td></td>
</tr>
<tr>
<td>Ac. Ft. Applied</td>
<td>1850</td>
<td>g.p.m. x 4.419</td>
</tr>
<tr>
<td>Acres of &quot;Approved&quot; Land irrigated</td>
<td>125</td>
<td></td>
</tr>
<tr>
<td>Ac. Ft. on &quot;Approved&quot; Land</td>
<td>145</td>
<td>0.29</td>
</tr>
<tr>
<td>Ac. Ft. Used on &quot;Approved&quot; Land at &quot;Approved&quot; Rate or Less</td>
<td>145</td>
<td></td>
</tr>
<tr>
<td>Proration Calculations</td>
<td>0.67 x 199 AF (less allowed for irrigation)</td>
<td></td>
</tr>
<tr>
<td>Perfected Rate</td>
<td>63.5 g.p.m.</td>
<td>114 AF</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Completed by</th>
<th>Douglas E. Bush</th>
<th>JUN 19 1937</th>
</tr>
</thead>
<tbody>
<tr>
<td>WATER RESOURCES RECEIVED</td>
<td>JUN 29 2015</td>
<td></td>
</tr>
<tr>
<td>Ks Dept. of Agriculture</td>
<td></td>
<td>SCANNED</td>
</tr>
</tbody>
</table>
GENERAL INFORMATION ON IRRIGATION SYSTEM:

- Center Pivot  
- High Pressure  
- Low Pressure

- Manufacturer: Olsen  
- Model:  
- Serial No.: 

- Drive: Electric  
- Length of Pivot Arm: 

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

- End Gun: Yes  
- End Gun Rating: g.p.m.  
- Rain Bird 85

- Is end gun operating during test?: Yes

- Gravity Irrigation (show test set on sketch)

- Number of gates open: 
- Normal Pipe Size: 

- Pressure at pump: p.s.i.

- Other  
- Type: 

- Manufacturer: 
- Model: 
- Serial No.: 

- Unusual Conditions/Other Info.

POWER UNIT INFORMATION:

- Manufacturer: Ford  
- Model No.: 300  
- HP: 

- Serial No.: 09978  
- E-23-72  
- Fuel: Natural Gas  
- Rated RPM: 

PUMP INFORMATION:

- Manufacturer: Johnston  
- Model No.: 

- Rated RPM: 

- Serial No.: CF 21230  
- Type: Vertical Turbine  
- No. stages: 

GEAR HEAD INFORMATION:

- Manufacturer: Amatillo  
- Model No.: 560 

- Serial No.: 115267  
- Drive: Right Angle  
- Ratio: 4:3

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

- Date Drilled: To Jan 174  
- Original Depth: —— ft.  
- Static Water Level When Drilled: —— ft.

- Tape Down Possible?: Yes  
- Water Level Measurement Tube?: 0.62 

- 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?:  
- Check Valve?: Yes  
- Low Pressure: 

- Vacuum Breaker?: Yes  
- Are these anti-pollution devices installed properly?: Yes

If chemicals are injected into system, please attach sketch of system.
SKETCH OF ACTUAL PLACE OF USE, LOCATION OF DIVERSION WORKS, AND DISTRIBUTION SYSTEM.
(Indicate distribution system layout at time of field test).

TEST OF DIVERSION RATE:

Length of time well has been operating prior to test 0
Location of test Horizontal, pipe at pivot
Pipe Diameter (I.D.) 7 3/4 inches

Test No. 1—Normal Conditions

<table>
<thead>
<tr>
<th>R.P.M. POWER UNIT</th>
<th>R.P.M. PUMP UNIT</th>
<th>Pressure at Pump</th>
</tr>
</thead>
<tbody>
<tr>
<td>2319</td>
<td>166.0</td>
<td>110 psi</td>
</tr>
</tbody>
</table>

Test No. 2—Maximum Conditions

<table>
<thead>
<tr>
<th>R.P.M. POWER UNIT</th>
<th>R.P.M. PUMP UNIT</th>
<th>Pressure at Pump</th>
</tr>
</thead>
<tbody>
<tr>
<td>2200</td>
<td>1650</td>
<td>10 psi</td>
</tr>
</tbody>
</table>

☐ Jacuzzi Meter Test

Meter Identification No.

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

Velocity (fps)

<table>
<thead>
<tr>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
<th>7.</th>
<th>8.</th>
<th>9.</th>
<th>10.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Velocity (fps)

<table>
<thead>
<tr>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
<th>7.</th>
<th>8.</th>
<th>9.</th>
<th>10.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Avg.  G.P.M.________

☐ Propeller Meter Test

Manufacturer_________________Model_________________Serial No.___WATER RESOURCES RECEIVED

Meter Diameter ________ inches

<table>
<thead>
<tr>
<th>Ending gal.</th>
<th>Beginning gal.</th>
<th>Difference gal.</th>
<th>Time min.</th>
<th>Rate gpm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

☐ Other Flow Meter

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

RECEIVED

JUN 29 2015

KS DEPT OF AGRICULTURE

HAYS000620
FUEL RECORDS:

Electricity Supplier: 

Meter Manufacturer: 

Type: 

Serial No.: 

K. watt/rev 

t revolutions 

t seconds 

Rate = Kr \times 3.6 = \text{kw/hr} 

Hours = \text{kw-hr} = \frac{\text{rate}}{3.6}

Other Fuels Supplier: Kansas - Nebraska

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

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

TABULATION OF WATER USE:

<table>
<thead>
<tr>
<th>Year</th>
<th>Hours Pumped (hr)</th>
<th>Tested Pumping Rate (gpm)</th>
<th>Water Used (AF)</th>
<th>Acres Irrigated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1976</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1977</td>
<td>936</td>
<td>1090</td>
<td></td>
<td>130</td>
</tr>
<tr>
<td>1978</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1979</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1981</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1982</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1983</td>
<td>2200*</td>
<td>700*</td>
<td></td>
<td>127*</td>
</tr>
<tr>
<td>1984</td>
<td>1750*</td>
<td>400*</td>
<td></td>
<td>130*</td>
</tr>
<tr>
<td>* 1985</td>
<td>1850*</td>
<td>425*</td>
<td></td>
<td>130*</td>
</tr>
<tr>
<td>1986</td>
<td></td>
<td>425*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* From WUR sent to us from Jerry Weaver or AgriAffiliates

* From test on 11/6/86

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

Crops Irrigated: this year: A15a/La Year of record: 1985/La

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

WATER RESOURCES RECEIVED

JUN 29 2015

Person present at test: Kent Naber  

Irrigation Manager  

KS DEPT OF AGRICULTURE

Water Use Correspondent: Lyle Kelbeck  

Springs, KS 67146  

(316) 385-4203

Conducted by: Ira Kent  

Date 11/2/84

Approved by: Hays  

Date 11/5/87

HAYS000621

SCANNED
**APPLICATION NO: 21729**  
**NAME:** Connecticut General Life Insurance  
**Flow from well in the NE1/4, SW1/4, NW1/4 pumping alone**

**COLLINS METER TEST**

Collins Meter No. 1-85  
Pipe Inside Diameter (inches) 7 1/16  
Test Pressure (psi) 10  
Test RPM, Pump 1650  

**Description of Test Location**  
Horizontal pipe before pivot stand

<table>
<thead>
<tr>
<th>Meter Setting From Center of Pipe</th>
<th>Velocity Left Side of Pipe (or Front Side if Vertical Test)</th>
<th>Velocity Right Side of Pipe (or Back Side if Vertical Test)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 1/6%</td>
<td>4.52 4.35</td>
<td>4.29 4.25</td>
</tr>
<tr>
<td>2 3/4%</td>
<td>4.93 4.54</td>
<td>4.70 3.68</td>
</tr>
<tr>
<td>3 1/6%</td>
<td>4.40 4.45</td>
<td>4.15 4.40</td>
</tr>
</tbody>
</table>

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

Corrected Ave. Vel. = \( \frac{(\text{Ave. Vel.}) \times (\text{Calibration Factor})}{4.35 \times 0.9826} \) = 4.27

Flow Rate = \( \frac{(\text{Corrected Ave. Vel.}) \times (\text{Flow Rate Factor})}{4.27 \times 1478} \) = 631 GPM

**WATER RESOURCES RECEIVED**

**PUMPING PLANT TESTING, INC. JUN 29 2015**

Reviewed By: [Signature]

Professional Engineer  
JUN 19 1987  
HAYSO006622  
MICROFILMED
APPLICATION NO: 21729  NAME: Connecticut General Life Ins.

COLLINS METER TEST
Flow from well in NEW, SW, VI, SW, under normal conditions

Collins Meter No. 1-85  Meter Calibration Factor 0.9826
Pipe Inside Diameter (inches) 7 1/4  Flow Rate Factor 147.8
Test Pressure (psi) 110  Test RPM, Pump 1660
Description of Test Location Horizontal pipe before pier stand

TEST DATA: QL Check, Initial 2.92  Reversed 2.96

<table>
<thead>
<tr>
<th>Meter Setting From</th>
<th>Left Side of Pipe</th>
<th>Right Side of Pipe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center of Pipe</td>
<td>(or Front Side if</td>
<td>(or Back Side if</td>
</tr>
<tr>
<td></td>
<td>Vertical Test)</td>
<td>Vertical Test)</td>
</tr>
<tr>
<td>1 5/8</td>
<td>2.99  2.95</td>
<td>2.95  2.91</td>
</tr>
<tr>
<td>2 3/4</td>
<td>2.90  2.90</td>
<td>2.92  2.92</td>
</tr>
<tr>
<td>3 7/8</td>
<td>2.96  2.93</td>
<td>2.82  2.93</td>
</tr>
</tbody>
</table>

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

Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 2.923 x 0.9826 = 2.872
Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 2.972 x 147.8 = 425 GPM

WATER RESOURCES RECEIVED
PUMPING PLANT TESTING, INC.
JUN 2 9 2015
Reviewed By:
Professional Engineer
JUN 19 1987
HAYNS0623
KS DEPT OF AGRICULTURE
Page 50 of DWSN OF WATER RESOURCES STAFFORD SCANNED
APPLICATION NO: 21,729
NAME: CONNECTICUT GENERAL LIFE INSURANCE CO, INC.

NOTES ON CHOOSING A YEAR OF RECORD

This development has had several owners since its inception in 1975, with owners from Europe and around the U.S. at various times, a state of confusion has existed in the crop production records. All of the water use and equipment records have been either destroyed or lost, and the systems and pumping plant components have been interchanged over the years.

Since late 1983, Connecticut General has made a diligent effort to keep good records. Therefore, it would seem reasonable to use the years since 1983 in choosing a year of record.

WATER RESOURCES RECEIVED
JUN 29 2015
KS DEPT OF AGRICULTURE

PUMPING PLANT TESTING, INC.
Reviewed by: M.J. W. Professional Engineer
HAYS000624

SCANNED
APPLICATION NO: 21729

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

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

PUMPING PLANT TESTING, INC.

JUN 1 9 1987

Checked by: [Signature]
Professional Engineer

JUN 29 2015

KS DEPT OF AGRICULTURE
EXHIBIT 1

DIVISION OF WATER RESOURCES—KANSAS STATE BOARD OF AGRICULTURE

FIELD INSPECTION REPORT

Test 5 of 6 Diversion points

Application No. 27129 Date 11/8/84 Firm/Field Office Pumping Plant Testing Inc

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

Current Landowner Connecticut General Life Ins. To Agri. Affiliates

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


Groundwater (X) Drainage Basin Arkansas River

Surface Water ( ) Stream

Authorized Point of Diversion: 1 well NC SW 1/4 Sec 29 T 25 R 19

Approximately ______ ft. North and ______ ft. West of SE corner of Sec. ______

Actual Point of Diversion: 1 well NC SW 1/4 Sec 29 T 25 R 19

Approximately ______ ft. North and ______ ft. West of SE corner of Sec. ______

How were distances determined? __ Scale from ASCS photo __

"Approved" Quantity 1000 AF "Approved" Diversion Rate 2900 g.p.m. (6.14 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:

<table>
<thead>
<tr>
<th>S</th>
<th>T</th>
<th>R</th>
<th>NE%</th>
<th>NW%</th>
<th>SW%</th>
<th>SE%</th>
<th>TOTAL ACRES</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>25</td>
<td>19</td>
<td>NE</td>
<td>NW</td>
<td>SW</td>
<td>SE</td>
<td>500</td>
</tr>
</tbody>
</table>

LAND IRRIGATED—YEAR OF RECORD 1985

<table>
<thead>
<tr>
<th>S</th>
<th>T</th>
<th>R</th>
<th>NE%</th>
<th>NW%</th>
<th>SW%</th>
<th>SE%</th>
<th>TOTAL ACRES</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>25</td>
<td>19</td>
<td>NW 9.44ac.</td>
<td>33</td>
<td>33</td>
<td>32</td>
<td>32</td>
</tr>
</tbody>
</table>

APPLICATION OF WATER:

Year of Record 1985 Hours Pumped 1850 or Quantity 93.3 AF

Acres of "Approved" Land irrigated 125

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

Acreeage Calculations: 2740 gpm x 1.39 = 3800 gpm

Perfection Rate 380 g.p.m. Perfected Quantity 74 AF

Completed by Douglas E. Bush 3-17-87
**GENERAL INFORMATION ON IRRIGATION SYSTEM:**

- **Center Pivot**
  - Manufacturer: Olson
  - Model: no tag
  - Serial No.

- **Drive**
  - Electric
  - Length of Pivot Arm

- **Design Pressure-Pivot**
  - Operating Pressure-Pivot

- **End Gun?** yes
  - End Gun Rating: 1 Rain Bird 85 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**

- **Other**

- Manufacturer
  - Model
  - Serial No.

- **Unusual Conditions/Other Info.**

**POWER UNIT INFORMATION:**

- **Manufacturer**: Ford
  - Model No.: 500
  - HP:

- **Serial No.**: 11909 K-28-76
  - Fuel: Natural Gas
  - Rated RPM:

**PUMP INFORMATION:**

- **Manufacturer**: Western Land Roller
  - Model No.
  - Rated RPM:

- **Serial No.**
  - Type: Vertical Turbine
  - No. stages:

**GEAR HEAD INFORMATION:**

- **Manufacturer**: Amaciio
  - Model No.

- **Serial No.**: 02 56405
  - Drive: Right Angle
  - Ratio: 1:1

**WELL INFORMATION:**

- No records available from owner's representative.

- **Date Drilled**: prior to Jan. 1979
  - **Original Depth**: __ ft.
  - **Static Water Level When Drilled**: __ ft.

- **Tape Down Possible?**: yes
  - **Water Level Measurement Tube?**: no

- **Measuring Point**: __ ft. above main L.S.D.

**ADDITIONAL REQUIREMENTS:**

- **Meter Required?**: no
  - Make of Meter:

- **Meter Model No.**
  - Serial No.:
  - Size:

- **Is Meter Installed Properly?**

- **Chemical Injection System?**: no
  - **Check Valve?**: yes
  - **Low Pressure Drain?**: yes

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

**KS DEPT OF AGRICULTURE**

**RECEIVED**

**JUN 29 2015**

**SCANNED**

**HAYS000627**
SKETCH OF ACTUAL PLACE OF USE, LOCATION OF DIVERSION WORKS, AND DISTRIBUTION SYSTEM.
(Indicate distribution system layout at time of field test).

![Sketch of actual place of use, location of diversion works, and distribution system.](image)

Scale
1" = ____ ft.

TEST OF DIVERSION RATE:

<table>
<thead>
<tr>
<th>Length of time well has been operating prior to test</th>
<th>Location of test</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Meter test pipe at pump</td>
</tr>
</tbody>
</table>

Pipe Diameter (I.D.) ___________ inches

<table>
<thead>
<tr>
<th>Test No. 1 — Normal Conditions</th>
<th>Test No. 2 — Maximum Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>R.P.M. POWER UNIT</td>
<td>1760</td>
</tr>
<tr>
<td>R.P.M. PUMP UNIT</td>
<td>1750</td>
</tr>
<tr>
<td>Pressure at Pump</td>
<td>110 psi</td>
</tr>
</tbody>
</table>

☐ Jacuzzi Meter Test

<table>
<thead>
<tr>
<th>Area Constant ( K = 2.45 \times \text{I.D.}^2 )</th>
<th>Meter Identification No. __________________</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Velocity (fps)</th>
<th>Velocity (fps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
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<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
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<td>5.</td>
<td></td>
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<tr>
<td>6.</td>
<td></td>
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<tr>
<td>7.</td>
<td></td>
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<tr>
<td>8.</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td></td>
</tr>
<tr>
<td>Total Avg.</td>
<td>Total Avg.</td>
</tr>
<tr>
<td>G.P.M.</td>
<td>G.P.M.</td>
</tr>
</tbody>
</table>

☐ Propeller Meter Test

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model</th>
<th>Serial No.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Meter Diameter</th>
<th>inches</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Ending</th>
<th>Beginning</th>
<th>Difference</th>
<th>Time</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>gpm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>gpm</td>
</tr>
</tbody>
</table>

☐ Other Flow Meter

<table>
<thead>
<tr>
<th>Use Supplemental Sheet (include meter identification, data and calculations)</th>
</tr>
</thead>
</table>

WATER RESOURCES RECEIVED

JUN 29 2015

KS DEPT OF AGRICULTURE

HAYS000628
FUEL RECORDS:

- Electricity: Supplier ________________ Type __________ Serial No. ________________
  - Meter Manufacturer: ________________
  - Type: ___________________________
  - Serial No. _______________________
  - Rate = $R \times 3.6 \text{ kw/hr}$
  - Hours = $\frac{1000}{\text{rev}} \text{ kw-hr}$

- Other Fuels: Type Natural Gas Supplier Kansas-Nebraska
  - Rate = $\frac{\text{Volume (test)}}{\text{time (rev)}}$
  - How was the test volume determined? Not determined Engine not on individual meter

TABULATION OF WATER USE:

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

* From WHA sent to us from Terry Weasin of Agri-Affiliates
* From test on 11/5/86

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

Crops Irrigated: this year Alfalfa
Year of record 1985

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

WATER RESOURCES RECEIVED

JUN 29 2015

KS DEPT OF AGRICULTURE

Person present at test Kent Nakas
Water Use Correspondent: Lyle Koehler Spearville, KS 67876 316-385-2803
Conducted by: J.D. Stoltz Date: 11/11/86
Approved by: R.E. Date: 11/15/87

HAYS000629

SCANNED
APPLICATION NO: 21729 NAME: Connecticut General Life Ins.

COLLINS METER TEST Flow from well mcSulh pumping alone

Collins Meter No. 1-84 Meter Calibration Factor .9635
Pipe Inside Diameter (inches) 7.76 Flow Rate Factor 147.8
Test Pressure (psi) 6 Test RPM, Pump 1771
Description of Test Location Horizontal pipe before pivot stand

<table>
<thead>
<tr>
<th>TEST DATA: Q Check, Initial 2.72 Reversed 2.75</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meter Setting From Left Side of Pipe Right Side of Pipe</td>
</tr>
<tr>
<td>Center of Pipe (or Front Side if (or Back Side if</td>
</tr>
<tr>
<td>Vertical Test) Vertical Test)</td>
</tr>
</tbody>
</table>

| 1 1/8 | 2.66 | 2.67 | 2.75 | 2.70 |
| 2 3/4 | 2.48 | 2.48 | 2.56 | 2.60 |
| 3 7/8 | 2.26 | 2.30 | 2.38 | 2.29 |

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

Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 2.51 x .9635 = 2.42

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 2.42 x 147.8 = 352 GPM

WATER RESOURCES RECEIVED
PUMPING PLANT TESTING, INC. JUN 29 2015
Reviewed By: Phil Peterson
Professional Engineer JUN 19 1987
KS DEPT OF AGRICULTURE
HAYS000630
APPLICATION NO: 21729  NAME: Connecticut General Life Ins.

COLLINS METER TEST

Flow from well NC SW by under normal conditions

Collins Meter No. 1-84  Meter Calibration Factor .9635
Pipe Inside Diameter (inches) 7 1/4  Flow Rate Factor 1.478
Test Pressure (psi) 110  Test RPM, Pump 1760

Description of Test Location: Horizontal pipe before first stand

-----------------------------------------------

TEST DATA: Q  Check, Initial 2.05  Reversed 2.06

<table>
<thead>
<tr>
<th>Meter Setting From</th>
<th>Initial Velocity</th>
<th>Reversed Velocity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center of Pipe</td>
<td>Left Side of Pipe (or Front Side if Vertical Test)</td>
<td>Right Side of Pipe (or Back Side if Vertical Test)</td>
</tr>
<tr>
<td>1 1/4</td>
<td>1.99</td>
<td>2.00</td>
</tr>
<tr>
<td>2 1/4</td>
<td>1.87</td>
<td>1.92</td>
</tr>
<tr>
<td>3 1/4</td>
<td>1.81</td>
<td>1.76</td>
</tr>
</tbody>
</table>

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

Corrected Ave. Vel. = (Ave. Vel.) x (Calibration Factor) = 1.93 x 0.9635 = 1.856

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 1.856 x 1.478 = 274 GPM

WATER RESOURCES: RECEIVED

PUMPING PLANT TESTING, INC. JUN 29 2015

Reviewed By: Professional Engineer

KS DEPT OF AGRICULTURE

HAYS000631

DIVISION OF WATER RESOURCES  SCANNED  MICROFILMED
NOTES ON CHOOING A YEAR OF RECORD

THIS DEVELOPMENT WAS OWNED BY SEVERAL OWNERS SINCE ITS INCEPTION IN 1975, WITH OWNERS FROM CANADA & AMONG THE U.S. AT VARIOUS TIMES, THERE Has BEEN A STATE OF CONFUSION HAS EXISTED IN THE CROP PRODUCTION REPORT. ALL OF THE WATER USE AND EQUIPMENT RECORDS HAVE BEEN EITHER DESTROYED OR LOST, AND THE SYSTEMS AND PUMPING PLANT COMPONENTS HAVE BEEN INTACT CHANGED OVER THE YEARS.

SINCE LATE 1983, CONNECTICUT GENERAL HAS MADE A DILIGENT EFFORT TO KEEP GOOD RECORDS. THEREFRE, IT WOULD SEEM REASONABLE TO USE THE YEARS SINCE 1983 IN CHOOING A YEAR OF RECORD.
APPLICATION NO: 21729

NAME: Connecticut General Life Ins

Flow test on wells pumping independently:

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

Flow test under "normal" conditions:

"Normal" conditions are when both wells are pumping together into the center pivot. We tested the flow from each individually while both were pumping. The total flow into the system would be the combined flow of each well pumping under "normal" conditions, (274 gpm + 425 gpm = 699 gpm)
Test 4 of 6 Diversion points

Application No. 21729 Date 9/20/76

Firm/Field Office Pumping Plant Testing, Inc. Inspector Terry Weaver

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

Current Landowner Connecticut General Life Insurance Co Agr. Affiliates

Address Box 112, North Platte, NE 69103 Annex Terry Weaver

Water Use Classification: 1. Domestic ( ) 2. Industrial ( ) 3. Irrigation ( )

Groundwater ( ) Drainage Basin Arkansas River

Surface Water ( ) Stream

Authorised Point of Diversion: Well NC SE 7/4 Sec. 29 T. 25 R. 19

Approximately ___ ft. North and ___ ft. West of SE corner of Sec.

Actual Point of Diversion: Well NC SE 7/4 Sec. 29 T. 25 R. 19

Approximately ___ ft. North and ___ ft. West of SE corner of Sec. 29

How were distances determined? Sealed from AEC photo

"Approved" Quantity 1000 AF "Approved" Diversion Rate 2400 g.p.m. (6.46 c.f.s.)

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

Perfection Date Dec. 31, 1981

Other applications covering land and/or point of diversion. None

(include discussion of overlapping files in remarks section)

LAND TO BE INCLUDED ON CERTIFICATE:

<table>
<thead>
<tr>
<th>S</th>
<th>T</th>
<th>R</th>
<th>NE</th>
<th>NW</th>
<th>SW</th>
<th>SE</th>
<th>NE</th>
<th>NW</th>
<th>SW</th>
<th>SE</th>
<th>NE</th>
<th>NW</th>
<th>SW</th>
<th>SE</th>
<th>TOTAL ACRES</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>25</td>
<td>19</td>
<td>31</td>
<td>31</td>
<td>31</td>
<td>31</td>
<td>31</td>
<td>31</td>
<td>31</td>
<td>31</td>
<td>31</td>
<td>31</td>
<td>31</td>
<td>31</td>
<td>500</td>
</tr>
</tbody>
</table>

LAND IRRIGATED—YEAR OF RECORD 1985

<table>
<thead>
<tr>
<th>S</th>
<th>T</th>
<th>R</th>
<th>NE</th>
<th>NW</th>
<th>SW</th>
<th>SE</th>
<th>NE</th>
<th>NW</th>
<th>SW</th>
<th>SE</th>
<th>NE</th>
<th>NW</th>
<th>SW</th>
<th>SE</th>
<th>TOTAL ACRES</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>25</td>
<td>19</td>
<td>(NE NW SE 7/4 off)</td>
<td>31</td>
<td>31</td>
<td>31</td>
<td>31</td>
<td>125</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

APPLICATION OF WATER:

Year of Record 1985 Hours Pumped 1850 or Quantity 244.6 AF

Normal Operating G.P.M. 718 Equiv. c.f.s. 1.10

Maximum Operating G.P.M. FIELD DIVISION OF WATER EQUIV. c.f.s.

Year of Record 1985 Extension of time requested: Yes No

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

Ac. Ft. Adjusted 1850 hrs. x 21.8 g.p.m. x 4.419 = 245 AF

Acres of "Approved" Land irrigated 125

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

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

Proration Calculations 125 acres irrigated x 1.5 AF per acre = 187.5 AF

Perfected Rate 720 g.p.m. Perfected Quantity 198 AF

HAYS000634

Firm Field Testing Inc. Brown 3-18-87

Rev. March 1986

WATER RESOURCES BOARD OF AGRICULTURE

JUN 19 1983

JUN 29 2015

WATER RESOURCES RECEIVED

DEPT. OF AGRICULTURE

MICROFILMED

SCANNED
GENERAL INFORMATION ON IRRIGATION SYSTEM:

- Center Pivot ☒ High Pressure ☐ Low Pressure ☒
- Manufacturer: Olson
- Model: 103 FL
- Serial No.: 3999
- Drive: Electric
- Length of Pivot Arm
- Design Pressure-Pivot: p.s.i.
- Operating Pressure-Pivot: p.s.i.
- End Gun?: Yes
- End Gun Rating: g.p.m. Toro
- Is end gun operating during test?: Yes
- Gravity Irrigation (show test set on sketch)
- Number of gates open
- Normal Pipe Size
- Pressure at pump: p.s.i.
- Other Type:
- Manufacturer:
- Model:
- Serial No.
- Unusual Conditions/Other Info.

POWER UNIT INFORMATION:
- Manufacturer: Ford
- Model No.: 460
- HP
- Serial No.: 11669 K-26-7G Fuel: Natural Gas Rated RPM

PUMP INFORMATION:
- Manufacturer: Johnson
- Model No.: 5
- Rated RPM
- Serial No.: 621229 Type: Vertical Turbine
- No. stages

GEAR HEAD INFORMATION:
- Manufacturer: Amarillo
- Model No.: 580
- Serial No.: 87993 Drive: Right Angle Ratio: 5:4

WELL INFORMATION:
- Date Drilled: prior to Jan 1974
- Original Depth: 33 ft.
- Static Water Level When Drilled: 4 ft.
- Tape Down Possible?: No
- Water Level Measurement Tube?: No
- Measuring Point: ft. above or below L.S.D.

ADDITIONAL REQUIREMENTS:
- Meter Required?: No
- Make of Meter:
- Meter Model No.: Serial No.: Size:
- Is Meter Installed Properly?:
- Chemical Injection System?: Yes
- Check Valve?: No
- Low Pressure Drain?: No
- Vacuum Breaker?: No
- Are these anti-pollution devices installed properly?:
- If chemicals are injected into system, please attach sketch of system.
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 ___________
Location of test ___________
Pipe Diameter (I.D.) ___________

Test No. 1—Normal Conditions

| R.P.M. POWER UNIT | 22.10 |
| R.P.M. PUMP UNIT | 1768 |
| Pressure at Pump | 53 psi |

Test No. 2—Maximum Conditions

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

Jacuzzi Meter Test

Area Constant K = 2.45 x I.D.\(^2\) = ___________

Velocity (fps)

<table>
<thead>
<tr>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
<th>7.</th>
<th>8.</th>
<th>9.</th>
<th>10.</th>
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</thead>
<tbody>
<tr>
<td>___</td>
<td>___</td>
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<td>___</td>
<td>___</td>
<td>___</td>
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<td>___</td>
<td>___</td>
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</table>

Total

<table>
<thead>
<tr>
<th>Avg.</th>
<th>G.P.M.</th>
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<tbody>
<tr>
<td>___</td>
<td>____</td>
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</table>

Propeller Meter Test

<table>
<thead>
<tr>
<th>Meter Diameter</th>
<th>inches</th>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Ending</th>
<th>Beginning</th>
<th>Difference</th>
<th>Rate</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>gal.</td>
<td>gal.</td>
<td>gal.</td>
<td>gpm</td>
<td></td>
</tr>
</tbody>
</table>

Other Flow Meter

Use Supplemental Sheet (include meter identification, data and calculations).
**FUEL RECORDS:**

- **Electricity**
  - Supplier: _______________________
  - Meter Manufacturer: ___________ Type: ___________ Serial No.: ___________
  - Rate: \( K \times 3.6 \) = ___________ kwhr
  - Hours: ___________ kw-hr = ___________ rate

- **Other Fuels**
  - Type: Natural Gas
  - Supplier: Kansas-Nebraska
  - Rate: Volume (test) = ___________ time
  - How was the test volume determined? Not Determined

**TABULATION OF WATER USE:**

<table>
<thead>
<tr>
<th>Year</th>
<th>Hours Pumped (hr)</th>
<th>Tested Pumping Rate (gpm)</th>
<th>Water Used (AF)</th>
<th>Acres Irrigated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>1260</td>
<td>1000</td>
<td></td>
<td>125</td>
</tr>
<tr>
<td>1976</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1977</td>
<td>701</td>
<td>1000</td>
<td></td>
<td>130</td>
</tr>
<tr>
<td>1978</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1979</td>
<td>1224</td>
<td>780</td>
<td></td>
<td>123</td>
</tr>
<tr>
<td>1980</td>
<td>1416</td>
<td>780</td>
<td></td>
<td>123</td>
</tr>
<tr>
<td>1981</td>
<td>1152</td>
<td>780</td>
<td></td>
<td>123</td>
</tr>
<tr>
<td>1982</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1983</td>
<td>2200*</td>
<td>800*</td>
<td></td>
<td>123*</td>
</tr>
<tr>
<td>1984</td>
<td>1700*</td>
<td>850*</td>
<td></td>
<td>125*</td>
</tr>
<tr>
<td>1985</td>
<td>1850*</td>
<td>718*</td>
<td></td>
<td>125*</td>
</tr>
<tr>
<td>1986</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Obtained from test on 9/6/86

**REMARKS:**

How was the test volume determined? Not Determined

Engine not on an individual meter

**Source of Information:**

- Stated Files

**Crops Irrigated:**

- this year: 1985
- Year of record: 1985

**Remarks:** See attached sheet for logic in choosing a year

**WATER RESOURCES RECEIVED**

- KS DEPT OF AGRICULTURE

- JUN 29 2015

**Person present at test:** Kent Naber

**Water Use Correspondent:** Lyle Kelboom

**Conducted by:** Lyle Kelboom

**Approved by:** [Signature]

**WATER RESOURCES RECEIVED**

- KS DEPT OF AGRICULTURE

- JUN 29 2015

**Person present at test:** [Name]

**Water Use Correspondent:** [Name]

**Conducted by:** [Name]

**Approved by:** [Name]

**WATER RESOURCES RECEIVED**

- KS DEPT OF AGRICULTURE

- JUN 29 2015

**Person present at test:** [Name]

**Water Use Correspondent:** [Name]

**Conducted by:** [Name]

**Approved by:** [Name]

**WATER RESOURCES RECEIVED**

- KS DEPT OF AGRICULTURE

- JUN 29 2015

**Person present at test:** [Name]

**Water Use Correspondent:** [Name]

**Conducted by:** [Name]

**Approved by:** [Name]
APPLICATION NO: 21729  NAME: Connecticut General Life Insurance

COLLINS METER TEST

Collins Meter No. 1-83  Meter Calibration Factor .9559
Pipe Inside Diameter (inches) 7.34  Flow Rate Factor 14.54
Test Pressure (psi) 53  Test RPM, Pump 1768

Description of Test Location Horizontal pipe between pump and pivot

TEST DATA: Q) Check, Initial 5.70  Reversed 5.68

<table>
<thead>
<tr>
<th>Meter Setting From Center of Pipe</th>
<th>Left Side of Pipe (or Front Side if Vertical Test)</th>
<th>Right Side of Pipe (or Back Side if Vertical Test)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.94</td>
<td>5.44 5.52</td>
<td>5.67 5.56</td>
</tr>
<tr>
<td>2.3</td>
<td>5.37 5.30</td>
<td>5.42 5.50</td>
</tr>
<tr>
<td>3.94</td>
<td>4.55 4.59</td>
<td>4.60 4.47</td>
</tr>
</tbody>
</table>

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

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

Flow Rate = (Corrected Ave. Vel.) x (Flow Rate Factor) = 4.94 x 14.54 = 71.8 GPM
APPLICATION NO: 21,729

NAME: CONNECTICUT GENERAL LIFE
INSURANCE CO, INC.

NOTES ON CHOOSING A YEAR OF RECORD

This development was sold to several owners since its inception in 1975, with owners from Europe and around the U.S. At various times, a state of confusion has existed in the crop production records. All of the water use and equipment records have been either destroyed or lost, and the systems and pumping plant components have been interchanged over the years.

Since late 1983, Connecticut General has made a diligent attempt to keep good records. There are, it would seem reasonable to use the years since 1983 in choosing a year of record.
MEMORANDUM

To: Files
From: Douglas E. Bush

Date: March 17, 1987
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 \( \times \) 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\( _{2} \)) 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 \( \times \)599 (combined rate) = 273 gallons per minute [near the center of the Northwest Quarter (NW\( _{2} \)]. 313 gallons per minute divided by 576 gallons per minute = 0.54 \( \times \)599 gallons per minute (combined rate) = 325 gallons per minute [in the Northeast Quarter of the Southwest Quarter of the Northwest Quarter (NE\( _{2} \) SW\( _{2} \) NW\( _{2} \)].

The quantities for the wells located near the center of the Northwest Quarter (NW\( _{2} \)) and in the Northeast Quarter of the Southwest Quarter of the Northwest Quarter (NE\( _{2} \) SW\( _{2} \) NW\( _{2} \)) 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 \( \times \)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\( _{2} \)]. 313 gallons per minute divided by 576 gallons per minute = 0.54 \( \times \)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\( _{2} \) SW\( _{2} \) NW\( _{2} \)].

The quantities for the wells located near the center of the Southwest Quarter (SW\( _{2} \)) and in the Northeast Quarter of the Southwest Quarter of the Southwest Quarter (NE\( _{2} \) SW\( _{2} \) SW\( _{2} \)) 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 \( \times \)188 acre-feet (maximum allowed for irrigating 125 acres at 1.5 acre-feet per acre) = 84 acre-feet [near the center of the Southwest Quarter (SW\( _{2} \)]. 425 gallons per minute divided by 699 gallons per minute = 0.60 \( \times \)188 acre-feet (maximum allowed for irrigating 125 acres at 1.5 acre-feet per acre) = 113 acre-feet [Northeast Quarter of the Southwest Quarter of the Southwest Quarter (NE\( _{2} \) SW\( _{2} \) SW\( _{2} \)].
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 (SWQ) of said section and the well located in the Northeast Quarter of the Southwest Quarter of the Southwest Quarter (NEQ SWQ SWQ) 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
Hydrologist

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

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

Date: November 5, 1986

History: Effective November 5, 1986

Approved by: David L. Pope
Chief Engineer

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

<table>
<thead>
<tr>
<th>Area, Place of use</th>
<th>Max. Allowable Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>up to 10 acres</td>
<td>450 g.p.m.</td>
</tr>
<tr>
<td>10 - 40 acres</td>
<td>(+) 450 g.p.m.</td>
</tr>
<tr>
<td>40 - 120 acres</td>
<td>(+) 8 g.p.m./acre</td>
</tr>
<tr>
<td>more than 120 acres</td>
<td>(+) 7 g.p.m./acre</td>
</tr>
</tbody>
</table>

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. |
| (+) 40 acres (10 + 30) | 550 + TX |
| (+) 43 acres @ 8 g.p.m./acre | 700 + TX |

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

A further limiting factor is well design and equipment, which shall be reasonable to divert the requested rate.
Further, the rate authorized should not impair senior water rights in the area, including domestic rights.

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

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

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

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

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

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

PLSS Sections
### 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.

<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
<th>Column 4</th>
<th>Column 5</th>
<th>Column 6</th>
<th>Column 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw Water Diverted Under Your Rights</td>
<td>Water Purchased From All Sources</td>
<td>Water Sold to Other Public Water Suppliers</td>
<td>Water Sold to Your Industrial, Stock, and Bulk Customers</td>
<td>Water Sold to Your Residential and Commercial Customers</td>
<td>Other Metered Water</td>
<td>Remaining Water Used (See Below Explanation)</td>
</tr>
<tr>
<td>327,288,100</td>
<td>0</td>
<td>0</td>
<td>105,295,000</td>
<td>108,743,000</td>
<td>18,944,000</td>
<td>83,369,100</td>
</tr>
<tr>
<td><strong>TOTAL WATER = Columns 1 + 2</strong></td>
<td><strong>ACCOUNTED FOR WATER = Columns 3 + 4 + 5 + 6</strong></td>
<td><strong>UNACCOUNTED FOR WATER</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**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:

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

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.

**EXHIBIT R**

### SECTION 2: PAST WATER USE

**COMPLETE THE FOLLOWING TABLE FROM YOUR PAST WATER USE RECORDS.**

<table>
<thead>
<tr>
<th>Raw Water Diverted Under Your Rights</th>
<th>Water Purchased From All Sources</th>
<th>Water Sold to Other Public Water Suppliers</th>
<th>Water Sold to Your Industrial, Stock, and Bulk Customers</th>
<th>Water Sold to Your Residential and Commercial Customers</th>
<th>Other Metered Water</th>
<th>Remaining Water Used (See Above Explanation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 years ago</td>
<td>373,757,000</td>
<td>0</td>
<td>171,928,220</td>
<td>115,884,670</td>
<td>18,887,850</td>
<td>67,278,260</td>
</tr>
<tr>
<td>15 years ago</td>
<td>477,411,000</td>
<td>0</td>
<td>222,781,000</td>
<td>147,540,000</td>
<td>19,453,000</td>
<td>87,882,000</td>
</tr>
<tr>
<td>10 years ago</td>
<td>575,790,000</td>
<td>0</td>
<td>144,277,000</td>
<td>123,343,000</td>
<td>18,907,000</td>
<td>88,263,000</td>
</tr>
<tr>
<td>5 years ago</td>
<td>671,164,000</td>
<td>0</td>
<td>166,327,000</td>
<td>139,540,000</td>
<td>19,453,000</td>
<td>98,882,000</td>
</tr>
</tbody>
</table>

**TOTAL WATER = Columns 1 + 2**

**ACCOUNTED FOR WATER = Columns 3 + 4 + 5 + 6**

**UNACCOUNTED FOR WATER**
### SECTION 3: PROJECTED FUTURE WATER NEEDS

Please complete the following table showing your future water requirements for the next 20 years:

<table>
<thead>
<tr>
<th>Year</th>
<th>Column 1 (Raw Water Diverted Under Your Rights)</th>
<th>Column 2 (Water Purchased From All Sources)</th>
<th>Column 3 (Water Sold to Other Public Water Suppliers)</th>
<th>Column 4 (Water Sold to Your Industrial, Stock, and Bulk Customers)</th>
<th>Column 5 (Water Sold to Your Residential and Commercial Customers)</th>
<th>Column 6 (Other Metered Water)</th>
<th>Column 7 (Remaining Water Used)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 5</td>
<td>386,346,512</td>
<td>0</td>
<td>0</td>
<td>177,719,396</td>
<td>119,767,419</td>
<td>15,453,861</td>
<td>73,405,836</td>
</tr>
<tr>
<td>Year 10</td>
<td>405,513,662</td>
<td>0</td>
<td>0</td>
<td>186,536,377</td>
<td>125,709,241</td>
<td>16,220,547</td>
<td>77,047,517</td>
</tr>
<tr>
<td>Year 15</td>
<td>426,310,852</td>
<td>0</td>
<td>0</td>
<td>196,102,992</td>
<td>132,158,364</td>
<td>17,052,434</td>
<td>80,990,082</td>
</tr>
<tr>
<td>Year 20</td>
<td>443,848,022</td>
<td>0</td>
<td>0</td>
<td>204,170,080</td>
<td>137,592,887</td>
<td>17,753,921</td>
<td>84,331,124</td>
</tr>
<tr>
<td>TOTAL WATER</td>
<td>= Columns 1 + 2</td>
<td>ACCOUNTED FOR WATER = Columns 3 + 4 + 5 + 6</td>
<td>UNACCOUNTED FOR WATER</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### SECTION 4: POPULATION AND SERVICE CONNECTIONS

Estimate the number of persons directly served by your water distribution system.

**Past Population - Provide Information Below:**

<table>
<thead>
<tr>
<th>LAST 20 YEARS</th>
<th>POPULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 years ago</td>
<td>4,710</td>
</tr>
<tr>
<td>15 years ago</td>
<td>4,696</td>
</tr>
<tr>
<td>10 years ago</td>
<td>4,506</td>
</tr>
<tr>
<td>5 years ago</td>
<td>4,475</td>
</tr>
<tr>
<td>Last Year</td>
<td></td>
</tr>
</tbody>
</table>

Provide number of current active service connections:

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

### 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.

### 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 Division of your request.
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.

<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
<th>Column 4</th>
<th>Column 5</th>
<th>Column 6</th>
<th>Column 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw Water Diverted Under Your Rights</td>
<td>Water Purchased From All Sources</td>
<td>Water Sold to Other Public Water Suppliers</td>
<td>Water Sold to Your Industrial, Stock, and Bulk Customers</td>
<td>Water Sold to Your Residential and Commercial Customers</td>
<td>Other Metered Water</td>
<td>Remaining Water Used</td>
</tr>
<tr>
<td>684,559,000</td>
<td>10,806,000</td>
<td>595,254,000</td>
<td>18,327,000</td>
<td>82,172,000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TOTAL WATER = Column 1 + 2
ACCOUNTED FOR WATER = Column 3 + 4 + 5 + 6
UNACCOUNTED 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:

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

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.

<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
<th>Column 4</th>
<th>Column 5</th>
<th>Column 6</th>
<th>Column 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw Water Diverted Under Your Rights</td>
<td>Water Purchased From All Sources</td>
<td>Water Sold to Other Public Water Suppliers</td>
<td>Water Sold to Your Industrial, Stock, and Bulk Customers</td>
<td>Water Sold to Your Residential and Commercial Customers</td>
<td>Other Metered Water</td>
<td>Remaining Water Used</td>
</tr>
<tr>
<td>20 years ago</td>
<td>592,323,000</td>
<td>5,026,000</td>
<td>459,314,000</td>
<td>5,155,000</td>
<td>112,825,000</td>
<td></td>
</tr>
<tr>
<td>15 years ago</td>
<td>780,527,000</td>
<td>10,819,000</td>
<td>587,965,000</td>
<td>10,470,000</td>
<td>171,473,000</td>
<td></td>
</tr>
<tr>
<td>10 years ago</td>
<td>768,926,000</td>
<td>7,103,000</td>
<td>639,222,000</td>
<td>20,861,000</td>
<td>39,740,000</td>
<td></td>
</tr>
<tr>
<td>5 years ago</td>
<td>663,866,000</td>
<td>13,537,000</td>
<td>561,900,000</td>
<td>19,302,000</td>
<td>114,383,000</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL WATER = Column 1 + 2
ACCOUNTED FOR WATER = Column 3 + 4 + 5 + 6
UNACCOUNTED FOR WATER
### SECTION 3: PROJECTED FUTURE WATER NEEDS

Please complete the following table showing your future water requirements for the next 20 years:

<table>
<thead>
<tr>
<th>Year</th>
<th>Raw Water Diverted Under Your Rights</th>
<th>Water Sold to Your Industrial, Stock, and Bulk Customers</th>
<th>Water Sold to Your Residential and Commercial Customers</th>
<th>Other Metered Water</th>
<th>Remaining Water Used (See Explanation on other side)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 5</td>
<td>753,014,900</td>
<td>11,866,800</td>
<td>654,778,600</td>
<td>17,959,700</td>
<td>6,218,200</td>
</tr>
<tr>
<td>Year 10</td>
<td>828,316,390</td>
<td>13,075,260</td>
<td>720,267,340</td>
<td>19,755,670</td>
<td>7,622,120</td>
</tr>
<tr>
<td>Year 15</td>
<td>911,148,029</td>
<td>14,882,768</td>
<td>792,253,974</td>
<td>21,731,237</td>
<td>8,275,932</td>
</tr>
<tr>
<td>Year 20</td>
<td>1,002,262,832</td>
<td>16,621,055</td>
<td>871,511,381</td>
<td>23,804,361</td>
<td>91,028,025</td>
</tr>
</tbody>
</table>

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:**

<table>
<thead>
<tr>
<th>LAST 20 YEARS</th>
<th>POPULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 years ago</td>
<td>17,636</td>
</tr>
<tr>
<td>15 years ago</td>
<td>18,750</td>
</tr>
<tr>
<td>10 years ago</td>
<td>20,013</td>
</tr>
<tr>
<td>5 years ago</td>
<td>20,106</td>
</tr>
<tr>
<td>Last Year</td>
<td>21,038</td>
</tr>
</tbody>
</table>

Provide number of current active service connections:

- 6,824 Residential
- 2 Industrial
- 1,256 Commercial
- 8,082 Pasture/Stockwater/Feedlot
- Other (specify) 0

**TOTAL** 16,162

### SECTION 6: 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

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

83,753,000 + 21,038 + 365 Days/Year = 88 GALLONS PER PERSON PER DAY.

### SECTION 6: AREA TO BE SERVED

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

City of Hays, KS Municipal Water Supply

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

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