Kansas Department of Agriculture Division of Water Resources CHANGE: P/D WORKSHEET

1. File Number: 10192	2. Status Change Date:	3. Change Num:	4. Field Office:	5. GMD:
6. Status: 🛛 Approved	☐ Denied by DWR/GMD ☐	Dismiss by Reques	st/Failure to Return	7. Filing Date of Change: 1/29/2020
8a. Applicant(s) New to system MIKE ROME JR ET 7925 W 9 MILE RD HOLCOMB, KS 678		8c. Landown New to sy		Person ID Add Seq#
8b. Landowner(s) New to system 8a	Person ID Add Seq#	7925 W	ROME JR 7 9 MILE RD OMB, KS 67851	Person ID Add Seq#
☐ Anti-Reverse Meter [s):		☑ Water Tube	Driller Copy H & E Letter o Comply:
10. Use Made of Water Fro	m:	To: _		
			Date Prepared: 3/3/2 Date Entered:	By: AM By:

			1			WANT - THE									22.4						
12. Points of Diversion CHK			2010										Ra	Rate and Quantity	Quanti	₹					
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14. Limitation:	af/yr at) mdb		1		cfs) when combined with file number(s)	n com	bined	with file	qunu (er(s)	line.					
Limitation:	af/yr at) mdb				cfs) when combined with file number(s)	n com	bined	with file	qunu e	er(s)						
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16. Place of Use CHK			2	NE1/4			Ž	NW1/4			SW1/4	4			SE1/4		Total	al Owner	er Chg?	1? Overlap Files	
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Comments: REDUCTION IN RATE TO 800 GPM	N IN RATE	0 8	00 G	PM																	

Garden City Field Office 4532 W. Jones, Suite B Garden City, KS 67846



Phone: 620-276-2901 Fax: 620-276-9315 www.agriculture.ks.gov

Mike Beam, Secretary

Laura Kelly, Governor

March 3, 2020

MIKE ROME JR ETAL 7925 W 9 MILE RD HOLCOMB, KS 67851

RE: Water Right, File No. 10,192

Dear Sir or Madam:

Enclosed is the order executed by the designee of the Chief Engineer, Division of Water Resources, Kansas Department of Agriculture, approving the application for change under the above referenced file number.

Your attention is directed to the enclosures and to the terms, conditions, and limitations specified in this approval for change. A condition of this approval is that an acceptable water flow meter must be installed on the diversion works authorized under the referenced file number and meet current specifications. Another condition of this approval is that the rate of diversion authorized under the referenced file number be reduced to 800 gpm. Please return the required notification of completion of the diversion works and installation of the required meter as soon as these actions are completed.

Since the order modifies the original document referred to above, it should be recorded with the Register of Deeds as other instruments affecting real estate.

Should you have any questions, please feel free contact this office. If you would prefer, you could arrange an appointment for additional assistance.

Sincerely,

Austin J. McColloch

Assistant Water Commissioner

AM:

enclosures

pc

GROUNDWATER MANAGEMENT DISTRICT NO. 3

CERTIFICATE OF SERVICE

On this 3rd day of March, 2020, I hereby certify that the foregoing Approval of Application for Change in Point of Diversion, Water Right, File No. 10,192 dated 3rd day of March, 2020 was mailed postage prepaid, first class, US mail to the following:

MIKE ROME JR ETAL 7925 W 9 MILE RD HOLCOMB, KS 67851

Pc:

GROUNDWATER MANAGEMENT DISTRICT NO. 3

Division of Water Resources Staff

Submit completed application to: Kansas Department of Agriculture Division of Water Resources Field Office for your area. Call for address:

Topeka -- (785) 296-5733 Stafford -- (620) 234-5311 Stockton -- (785) 425-6787 Garden City -- (620) 276-2901 http://agriculture.ks.gov/dwr

DWR FIELD OFFICE APPLICATION FOR APPROVAL TO CHANGE THE PLACE OF USE AND/OR THE POINT OF DIVERSION



STATE OF KANSAS

Filing Fee Must Accompany the Application, K.S.A. 82a-708b(b), as amended. Fee Schedule is on the third page of this application form.

thai	ragraph Nos. 1, n 100 feet, or if pl	ace of	use w															
of d	liversion and/or p	lace o	f use.			-ile Na	1010	92			ent ir					J		IVED \$40Am 9 2020
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					□ P	lace o	f Use			Point	of Dive	ersion						Mortu A.F.
	under the water	right v	vhich i	s the s	ubject	of this	applic	ation i	n acco	rdanc	e with	the co	ndition	s desc	cribed	below.		
	The source of s	upply i	s:			round	water			Surfa	ce wat	er						
2.	Name and addre	ess of	Applic	ant: R	OME	BROT	HERS	PART	ERSH	IP		197	1.)		_	**	<u>- 1</u>	rangettr
	7925 W 9 MILE	ROAD	HOL	COMB	, KAN	SS 67	851					STREET,		-			- 110	
	Phone Number:	Y								ss:			21					
	Name and address						11 12 17 15	(E RO	MER								3.70	
3.	Phone Number: The presently at Owner of Land (If there is more the	uthoriz NA	ed pla AME: ESS:	ce of u	HANGE		ental sh					PTUIN AZ			- 1 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2	- 112		- 52 j
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4.	If this application Owner of Land	NA ADDRI	AME: ESS:	NO CH	HANGE			ep.			ace of	use be	e chan	ged to			1999VI	20 9 06 1
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For Office Use Only: Code

Fee \$ 200.00 TR#

Receipt Date 1-29-20 Check # 001839

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		, Township				
		unty, Kansas,				
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		☐This point will be change				
		(Complete only if change				
One in the	NE	Quarter of the	NE	Quarter of the _	SW	Quarte
of Section	3	, Township	23	South, Range _	34`	(W)
in FINNEY	Co	unty, Kansas, <u>2575</u> Proposed Quantity _	_ feet North	2650 feet West	of Southeast corn	er of section.
This point is:		I ☐ Geo Center List o	ther water righ	ts that will use this po	oint	100
Way in the X	mr.	3/3/20				
Presently author						
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of Section		, Township		South, Range _		(W)
in	Co	Quarter of the , Township unty, Kansas,	_ feet North	feet West	of Southeast corn	er of section.
Authorized Rate _		Authorized Quantity	and the section	Depth of well	(fe	et)
(DWR use only:	Computer ID	NoGP	S	feet North	feet W	est)
☐This point will no	t be changed	☐ This point will be change	ed as follows:	No change, point bette	er described with GP	S as follows:
Proposed point	of diversion:	(Complete only if change	ge is requeste	d or if existing point	is better describ	ed by GPS)
		Quarter of the				
		, Township				(W
in	Co	unty, Kansas,	feet North	feet West	of Southeast corn	er of section.
		Proposed Quantity				
		☐ Geo Center List o				barre o
If a well, is the test The change(s) (wa		ned? 🛛 Yes 🔲 No		200 100 	orth 100 200	300 ITITUTE
If the point of diver	sion is a well:					
(a) What are you	going to do wit	h the old well?	West 0	+dun mdan mdm(X mhudunhudu	O East
To be plugged		unitio sa sa la	E .	3 NV 5 V 1 Apr V1 1 1 1 1 1 1		
(b) When will this	he done?		100	-1 + 1 + 1 -		1 - 100
(b) When will this	be done:		E		Ξ	4
	agement Distric	ct recommendation attache	d? 200	-	1+++	200
Assisted by <u>CAC</u>		the sale was been	300	200 100	100 200	
feet but within 2,64 a topographic ma sources, show all v of the proposed p addresses of the c names and addr	O feet of the export of the export of aerial place of the export of diversion of the export of the e	will be relocated more than isting point of diversion, at notograph. For groundw domestic) within one-half in and the names and ma rface water sources, show landowner(s) one-half upstream from your prop	tach 13b.If the rater of the mile diagraliling divers above mile diver		ersion, indicate its relation to the e E: The "X" in cei	ed within 300 f location on existing point onter of diagra

14. If th	he proposed groundwater point of diversion is 3	300 or fewer feet from the e	existing poin	t of diversion, complete	the following:
(a)	Does the undersigned represent all owners o ☐ Yes ☐ No (If no, all owners r	f the currently authorized p must sign this application.)	lace(s) of us	se identified in this applie	cation?
(b)	Will the ownership interest of any owner of taffected if this application is approved as required. Yes ☐ No (If yes, all owners)			e identified in this applic	cation be adversely
(c)	If this application is not approved expeditious ☐ Yes ☐ No (If no, all owners r	ly, will there be substantial must sign this application.)	damage to	property, public health o	r safety?
or a cha	oplication proposes a surface water change in pange in place of use, the application must be si attach notarized statement authorizing represer	gned by all owners of the o	water chang currently aut	ge in point of diversion g horized place of use, or	reater than 300 feet their duly authorized
age an their b contai	by verify, being first duly sworn upon ment the owner, the spouse of the owner, the shalf, in regards to the water right(s) to the in this application are true, correct	or a duly authorized ago o which this applicatio	ent of the n pertains	owner(s) to make the country that the country the country the	nis application or at the statements
Dated a	SORDEN CITY	, Kansas, this 📿 🖊	day of	O / Zion micy	, 20 <u>20</u> .
	(Owner)	ge state of the st		(Spouse)	
	MIKE ROME TR.			(Opodac)	
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	(Please Print)	atronius proporti e co		(Please Print)	(54)
State of	f Kansas)				
County	of FINNEY SS				
	reby certify that the foregoing application	was signed in my pres	sence and	sworn to before me	this 29774 day
My Con	nmission Expires 914-22	TARY PUBLIC - State of Mansas CATMERINE REINERT My Appt. Exp.	Cour	Notary Public	eid
	HANDY COUNTY OF THE STATE OF TH				
accurate	OMPLETE APPLICATIONS WILL BE PROCESSED information; maps, if necessary, must be included; sopriate fee must be paid.	. To be complete, all of the ap signatures of all the appropriate	plicable porti e owners' mu	ons of the application form st be affixed to the applicat	must be completed wit ion and notarized; and
		FEE SCHEDULE			
forth in	pplication to change the place of use or the point the schedule below: Make checks payable to: (1) Application to change a point of diversion (2) Application to change a point of diversion (3) Application to change the place of use .	Kansas Department of A 300 feet or less	griculture		\$100 \$200
epilgo	Alesana Uxebbee				
022	December 15, 2				
TOTAL PROPERTY OF	The transfer of the second second second				

Page 3

DWR 1-121 (Revised 04/5/2018)

File No. _

SUMMARY ORDER APPROVING APPLICATION FOR CHANGE AND IMPOSING CONDITIONS

pro	visions of the Kansas Water Appropriation Law. K.S.A. 82a-7	8b, as amended, and K.A.R. 5-5-1, et seq. and other applicable 701 et. seq., and rules and regulations promulgated thereunder, at this Summary Order does not change the terms, conditions and
1.	A change application was received on diversion authorized under the above-referenced file numbers.	requesting that the place of use and / or point of er be changed as described in the application.
2.	On and after the effective date of this summary order, the auth the topographic map accompanying the application to char	norized place(s) of use shall be located substantially as shown on nge the place of use. Applicable Not Applicable
3.	The change in point of diversion shall not impair existing righ previously authorized. The point of diversion authorized by radius of the authorized point(s) of diversion.	ts and shall be limited to the same source or sources of water as y this summary order shall be located within a foot e Not Applicable
4.	The point(s) of diversion described herein is administrative Positioning System (GPS), as described in the application.	ly corrected to be more accurately described using the Global ☐ Applicable ☒ Not Applicable
5.	The point(s) of diversion authorized herein shall not actually be authorized point(s) of diversion.	be located more than 2640 feet from the previously of Applicable
6.	As required by K.A.R. 5-3-5d, if the works for diversion is a w or other device suitable for making water level measurement K.A.R. 5-6-13. ✓ Applicable ☐ Not Applicable	ell with a diversion rate of 100 gallons per minute or more, a tube nts shall be installed, operated and maintained in accordance with
7.	December 31, 20 or before the first use of water, operated and maintained in accordance with K.A.R. 5-1-4 t	perly install an acceptable water flow meter on or before whichever occurs first. The water flow meter shall be installed, hrough 5-1-12. As required by K.S.A. 82a-732, as amended, and the reading of the water flow meter and the total quantity of water ng the end of each calendar year.
8.	Installation of the works for diversion of water shall be authorized extension of time. By March 1, 20 \(\subseteq \subseteq \) the works for diversion has been completed, on the form proving Applicable \(\subseteq \text{Not Applicable} \)	completed on or before December 31, 20 20, or within any applicant shall notify the Chief Engineer that construction of the ded by the Chief Engineer, as required by K.A.R. 5-8-4e.
9.	The completed well log shall be submitted with the requi	red notice. Applicable
10.	with an in-line, automatic, quick-closing check valve capat	oreign substance will be injected into the water shall be equipped ble of preventing pollution of the source of the water supply. The n accordance with K.A.R. 5-3-5c. ☒ Applicable ☐ Not Applicable
11.	Additional Conditions are attached. ✓ Yes ✓ No	
12.	water appropriated under the above-referenced file numb limitations, as amended and/or supplemented by this Sum Appropriation Law and the Rules and Regulations promu	R. 5-5-14, all of the owners of the authorized place(s) of use of er are responsible for compliance with its terms, conditions and imary Order, and with applicable provisions of the <i>Kansas Water</i> lgated thereunder. Failure to comply with these provisions may ended, and/or the suspension or revocation and dismissal of the ns authorized by law.
	Administrative Appeal and Effective Date of Order	FOR OFFICE USE ONLY
If vo	ou are aggrieved by this order, pursuant to K.S.A. 82a-1901,	APPLICATION APPROVED AND
you	may request an evidentiary hearing before the Chief gineer or request administrative review by the Secretary of	SUMMARY ORDER ISSUED
Agr	iculture. A request for hearing by the Chief Engineer must be	By: Water Milaller
filed	d within 15 days of service of this Order and a request for ministrative review by the Secretary must be filed within 30	Duly Authorized Designee of the Chief Engineer
day	s pursuant to K.S.Á. 77-531. Any request for administrative will be must state a basis for review pursuant to K.S.A. 77-527.	(Print Name): Wollow Division of Water Resources - Kansas Department of Agriculture
File	any request with Kansas Department of Agriculture,	Date of Issuance: March 3, 2020
665	pal Division, 1320 Research Park Drive, Manhattan, KS 02. Failure to timely request a hearing or review may	State of Kansas
pre	clude review under the Kansas Judicial Review Act. For Use by Register of Deeds) SS
	For Ose by Register of Deeds	County of Ctinney
		Acknowledged before me on work 3, 2020
		by Austin McColloch
		Signature: Julie Jones
		(Notary Public
		My commission expires: JULIE JONES My Appointment Expires Notary N
		William.

ATTACHMENT TO SUMMARY ORDER APPROVING APPLICATION FOR CHANGE AND IMPOSING CONDITIONS

The effective date of the change shall be the date this order is executed by the Chief Engineer, after which Water Right, File No. 10,192 shall be subject to the following condition:

11a. The water right shall be reduced to a total rate not to exceed 800 gallons per minute (1.78 c.f.s.) while operating.

		By: Mallo (Duly Authorized Designee of the Chief Engineer)
		(Print Name): Austin Mcollock Division of Water Resources Kansas Department of Agriculture
		Dated of Issuance: March 3, 2020
State of Kansas	\ CC	
County of Finney) 55	
The foregoing inst	rument	was acknowledged before me on the 30day of March,

2020, by Division of Water Resources, Kansas Department of Agriculture.

JULIE JONES My Appointment Expires December 15, 2022

My Commission expires:

(Notary Seal)

3795 W. Jones Ave. Garden City, KS 67846 PH: 620-277-2389

Street Address:

County: FI

10003

City, State:

Location:

Rig #:

Customer Name: Rome Brothers Partnership

Quarter: SW

Holcomb, KS 67851



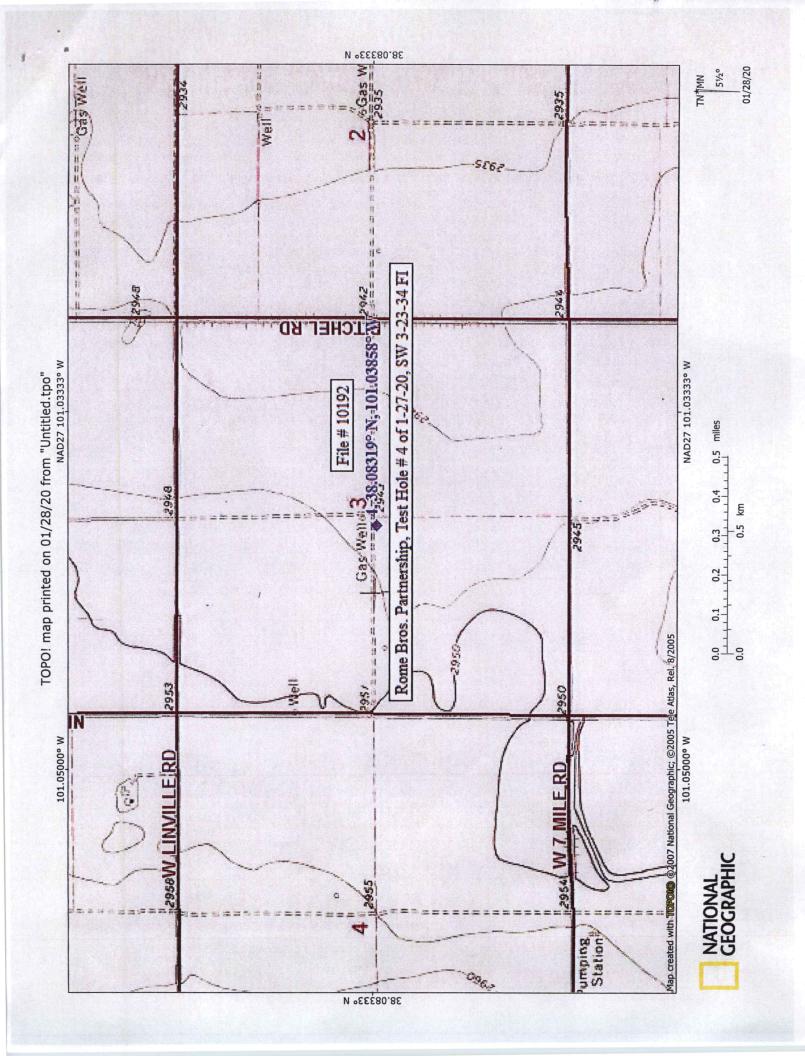
Section:

Elevation:

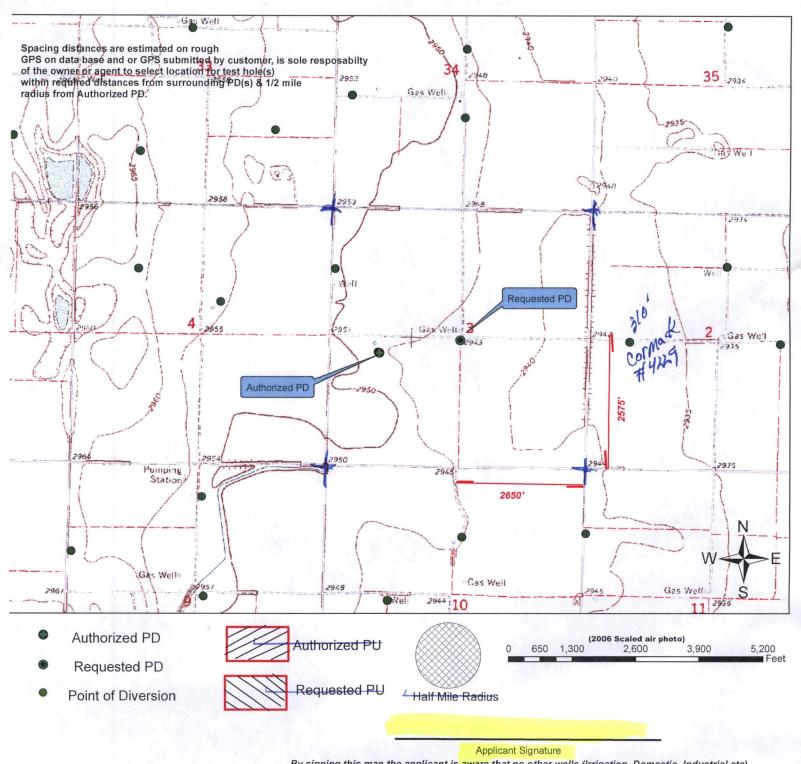
-- PO Box 639 Garden City, KS 67846 Fax: 620-277-0224

Date: 1-27-2020 E LOG: Driller: Keun Frizzell Township: 23 Range: 34 GPS: 38.08319 N Static WL: 205 Estimated?

				WELL LOCATION 20' SUMP
		Footage		
%	From	/ Pay	То	Description of Strata
	0		2	Top Soil
	12		20	Fine Sand, Few Sandy Clay Strips
	20		.39	Five to med crise Sand. (Sandy Claystrips)
	39		60	Brown Sondy Clay, Thin Clay Strips
	60		80	Brown Sondy Clay, Fire to med Ford Strip.
	80		135	Brown Sond's Clay, Few Francisad strips
	135		170	Fire to Charse, few 8 mall gravel,
	170		200	Fine to Mad Few marse sonal, sandy clay Etmes
30	200	16	221	Fine to mak coarse, white rock strips,
5	221	9	236	Fine Soul Soul v Clar M:X
25	230	44	274	The of the and tall a color control of the World Using a stall
30	274	44	280	Fine to Small gravel, white rockstrips Fine to Small gravel, white rockstrips Fine to med Coorse.
35	280	30	310	Fine to Small grovel, white rockstrips
30	310	5	315	Fine to med Coarse.
	315	-	320	Shale
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Point of Diversion Change WR 10192 T23 R34W Section 3 Finneyt County



By signing this map the applicant is aware that no other wells (Irrigation, Domestic, Industrial etc) are within the 1/2 mile radius circle.

KANSAS DEPARTMENT OF AGRICULTURE Division of Water Resources <u>M E M O R A N D U M</u>

TO:

Files

DATE:

March 3, 2020

FROM:

Austin McColloch

RE:

Change Application, File No. 10,192

Rome Brothers Partnership has filed the above referenced change application that was received in the Office of the Chief Engineer on January 29, 2020. The application is proposing to move the currently authorized well 1,690' to the east. Both GMD3 and DWR analysis of the change showed concerns with potential impacts to on the aquifer due to the proposed re-drill. In consultation with the Chief Engineer, to mitigate the concerns the authorized rate will be reduced to 800 gpm from the currently authorized 1,620 gpm. This reduction was accepted and approved by the applicant on March 3, 2020. Additional conditions will be implemented on the Summary Order approving the application for change.

Austin McColloch

Assistant Water Commissioner

D. Engelhaupt

Theis analysis of change application for File No. 10,192

A Theis analysis was used to evaluate the potential impacts re-locating the well authorized by File No. 10,192 to a point 1,690 feet east of the current location. Drawdown was evaluated at the point of diversion authorized by File No. 4,229 located 3,459 feet east of the proposed location. The drawdown from pumping at the proposed location at the authorized rate and quantity was compared to the drawdown from pumping at the current location at the historical average use (355 Acre-feet per year) and last reported rate (600 gallons per minute). It was assumed that the specific storage is 10⁻⁵ ft⁻¹. The GMD No. 3 model was used to project the 50-year future saturated thickness and transmissivity. The average value of grid cells located in Sections 2 and 3 of Township 23 South, Range 34 West was used. The projected saturated thickness is 34.7 feet, which results in a storativity of 0.00035. The projected transmissivity is 1,226 ft²/day. Under the assumed aquifer conditions and pumping scenarios, the change application results in an increase in drawdown of 67.10 feet at File No. 4,229, or 193% of the projected saturated thickness (Table 1). A second scenario was evaluated with the proposed rate reduced to 800 GPM. This scenario results in an increase in drawdown of 30.82 feet, or 88.82% of the projected saturated thickness (Table 2).

Table 1: Net drawdown for $T = 1,226 \text{ ft}^2/\text{day}$, S = 0.00035

		Rate	Quantity	Drawdown	Drawdown
Scenario	Distance	(GPM)	(AF)	(FT)	(%ST)
Proposed	3,459	1,620	680	106.46	306.80 %
Original	5,135	600	355	39.36	113.43 %
		Net	Drawdown	67.10	193.37 %

Table 2: Net drawdown for T = 1,226 ft²/day, S = 0.00035

		Rate	Quantity	Drawdown	Drawdown
Scenario	Distance	(GPM)	(AF)	(FT)	(%ST)
Proposed	3,459	800	680	70.18	202.25 %
Original	5,135	600	355	39.36	113.43 %
		Net	Drawdown	30.82	88.82 %

Meyer, Mike [KDA]

From: Jason Norquest < norquest@gmd3.org>

Sent: Monday, February 24, 2020 9:41 AM

To: McColloch, Austin [KDA]
Cc: Meyer, Mike [KDA]

Subject: RE: Recommendation Change Application File No. 10192

Attachments: 2020-02-24_ReviewMat_PD.pdf

EXTERNAL: This email originated from outside of the organization. Do not click any links or open any attachments unless you trust the sender and know the content is safe.

Austin, here is the review for this PD change. Analysis on the neighboring wells shows cause for concern since it is such a shallow saturated thickness area. I did have a phone conversation with Mike Rome about it. Evidently he got a hole in the casing of the current well, which is why he had to redrill. He was pumping around 600gpm and plans to continue with just 600gpm since that is what he is nozzled at. This would be under the rate we see the effects minimized, so it shouldn't be a problem to continue operating like he has. Let me know if you have any questions.

Jason Norquest

Assistant Manager, GMD3

Cell: 620-271-1289 Office: 620-275-7147

www.gmd3.org

From: McColloch, Austin [KDA] <Austin.McColloch@ks.gov>

Sent: Tuesday, February 4, 2020 8:46 AM **To:** Jason Norquest <norquest@gmd3.org>

Subject: Recommendation Change Application File No. 10192

Jason,

Attached is a copy of the above application for change in point of diversion along with a request for recommendation. There are no wells within a half mile of the proposed point of diversion so no nearby letters were sent. Let me know if you have questions or need more information.

Thanks,

Austin J. McColloch

Assistant Water Commissioner
Kansas Department of Agriculture- DWR
Garden City Field Office
http://agriculture.ks.gov/
Ph: (620) 276-2901



Southwest Kansas Groundwater Management District No. 3 2009 E. Spruce Street Garden City, Kansas 67846

(620) 275-7147 phone (620) 275-1431 fax www.gmd3.org

February 24, 2020

Austin J. McColloch Division of Water Resources 4532 W Jones Ave., Suite B Garden City, Kansas 67846

RE:

Application for Change in Point of Diversion

Water Right, File No. 10192

Dear Austin:

We have completed a review of the application for the above referenced water right. The proposed change in point of diversion is in accordance with current area rules, K.A.R. 5-23-3, as it pertains to distance moved and minimum spacing to neighboring wells.

Well evaluations were conducted to estimate possible effects of the proposal on the supply of other wells with water rights prior to the proposal per K.S.A. 82a-708b, and the draft revised management program. Under K.S.A. 82a-708b, an applicant requesting a change in point of diversion must demonstrate to the chief engineer that any proposed change is reasonable and will not impair. The enclosed report is an analysis performed by the GMD on behalf of our membership. Under this analysis, the proposed change is considered to be reasonable and unlikely to impair if either the net in-season well-to-well effect of the proposed change is less than a strict maximum allowable threshold (2.5 ft in cases where saturated thickness range is between 100-125 ft or less), or if no well with a net well-to-well effect exceeding the threshold is identified as critical. Critical wells are identified as wells that are expected to either lose or greatly diminish water supply over the next 25 years. The attached review information is based on a Theis analysis using inputs from the GMD3 aquifer model, which is considered to be the best information on well and aquifer data readily and easily available to the public. If either the applicant or the neighbors believe they have better data that might change the result of the analysis, they should contact GMD3. Conclusions of the well analysis may change if better information on well and aquifer data can be made available.

Every neighboring well within 1 mile of the proposed move was evaluated. Evaluations showed that quite a few of the neighboring wells exceeded the net effect on neighboring wells above the maximum allowable threshold. Our office did not receive any comments from neighboring well owners. We did have a phone conversation with the applicant. This redrill is due to a hole in the current well casing. He is nozzled for 600gpm and does not plan to increase his nozzle package. This rate would be under the rate our analysis (800gpm) showed to keep neighboring effects minimal. Therefore, GMD3 sees this move as reasonable and therefore recommend that the application be approved. If aquifer conditions change or there is a change to the water right in the future, we would be happy to evaluate the effects at that time.

Thank you for the opportunity to review the applications and to provide a recommendation. If you have any questions, please don't hesitate to contact us.

Sincerely,

Jason L. Norquest Assistant Manager

GMD3 Change Review

DWR office: GC. File No(s).: 10192. App filed to change: PD. Is Landowner(s) correct in WRIS: Rome Brothers Partnership. If NO, is documentation included? Is Water Use Correspondent correct in WRIS? ___. If NO, is documentation included? Regulation(s) Reviewed: KAR 5-23-3 Point of diversion ID No(s) 02 being changed. ft. West ft. North **Authorized PD** Proposed PD 0 0 Difference 0 a2 + b2 = c20 0 GPS for proposed PD: Lat: 38.08319 Long: -101.03858. Is proposed PD stacking on existing WRs? No. Is Proposed PU overlapping existing WRs? ___. Neighboring certified well(s) notified: __. Name Donald R & Elizabeth A Knoll. Address 2174 Road 250. Zip Deerfield, KS 67838. Lorraine Ramsey. Name 1127 N Plum ST Address Hutchinson, KS 67501. Zip Lavaughn J Roth. Name PO Box 1006. Address Holcomb, KS 67851. Zip Ruby Cormack Trust %Ruby J Cormack. Name Address PO Box 1006. Zip Holcomb, KS 67851. Domestic well(s) notified: __. Name Address Zip

Base Acres: __.
Perfected Acres:

GMD3 Change Review

Irr. Return-Flow %

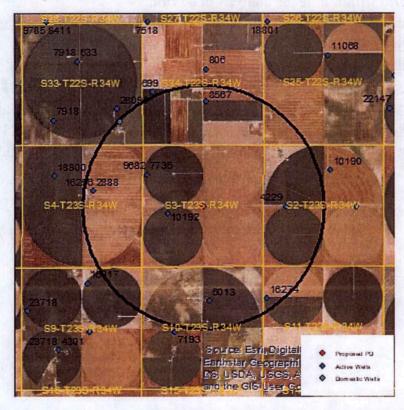
It more than meets spacing to neighboring wells. No wells within a half mile, but there are several within mile for analysis to be run.

Is a waiver needed: <u>Proposed move less than half mile and spacing more than met from neighboring wells.</u>

Recommendation: No response from any neighboring notices. Our evaluations for the area did show concern since it was such a low saturated area. Discussion with the applicant indicates he is nozzled for 600gpm and our analysis shows we should reduce effects if rate kept below 800gpm. Only reason for this application was due to a hole in the well casing that ruined the well. Staff therefore recommends approval of the application.

Evaluation of proposed move for Water Right No 10192

Proposed: Move water right no. 10192 a distance of 1568 ft to the east.



Wells within 1 mile: 7735 & 9682, 8567, 2888 & 16256 & 18800, 6013, 16274, 4229, and a domestic well in section 33-22-34.

The saturated thickness at the proposed well location is estimated to be 113 ft, based upon the driller's log and an observation well in section 10-23-34. For saturated thickness between 100 ft and 125 ft, the drawdown allowance is 2.5 ft.

50 year Theis Analysis: The following values were used to run the analysis:

S = 0.1777, T = 2055 ft²/day, $tp_{current} = 111$ days (based upon average use and observed rate), $Q_{current} = 724$ gpm (based upon 2016 field inspection), $tp_{proposed} = 95$ days, $Q_{proposed} = 1620$ gpm

Theis drawdowns were calculated as follows:

7735 & 9682:

Drawdown from current location = 8.88 ft

Drawdown from proposed location = 13.44 ft

Net drawdown = 4.6 ft

8567:

Drawdown from current location = 4.83 ft

Drawdown from proposed location = 10.00 ft

Net drawdown = 5.2 ft

2888 & 16256 & 18800: Drawdown from current location = 6.26 ft

Drawdown from proposed location = 9.61 ft

Net drawdown = 3.3 ft

6013: Drawdown from current location = 5.51 ft

Drawdown from proposed location = 10.73 ft

Net drawdown = 5.2 ft

16274: Drawdown from current location = 4.51 ft

Drawdown from proposed location = 9.63 ft

Net drawdown = 5.1 ft

4229: Drawdown from current location = 4.82 ft

Drawdown from proposed location = 11.55 ft

Net drawdown = 6.7 ft

Domestic 33-22-34: Drawdown from current location = 5.28 ft

Drawdown from proposed location = 9.20 ft

Net drawdown = 3.9 ft

Net drawdown exceeds the drawdown allowance of 2.5 ft for all wells within 1 mile of the proposed location. Critical well analysis is necessary on those wells.

Critical Well Evaluation:

7735 & 9682:

Water Column = 88 ft

DP = 4.55 ft

DE = 28.9 ft (Water level decline from 2020 through 2045 based upon GMD3 model)

DD = 123 ft (S = 0.1777, T = 15,374 gpd/ft, Q = 781 gpm, tp = 105 days, efficiency = 70%)

DT = 88 ft (total drawdown cannot physically exceed the saturated thickness)

Total drawdown is greater than the 88 ft saturated thickness, so this well is critical.

8567:

Water Column = 105 ft

DP = 5.18 ft

DE = 24.9 ft

DD = 78.6 ft (S = 0.2249, T = 19,793 gpd/ft, Q = 652 gpm, tp = 83 days, efficiency = 70%)

DT = 105 ft (total drawdown cannot physically exceed the saturated thickness)

Total drawdown is greater than the 105 ft saturated thickness, so this well is critical.

2888 & 16256 & 18800:

Water Column = 60 ft

DP = 3.34 ft

DE = 33.4 ft

DD = 56.1 ft (S = 0.1532, T = 31,673 gpd/ft, Q = 696 gpm, tp = 97 days, efficiency = 70%)

DT = 60 ft (total drawdown cannot physically exceed the saturated thickness)

Total drawdown is greater than the 60 ft saturated thickness, so this well is critical.

6013:

Water Column = 127 ft

DP = 5.22 ft

DE = 35 ft

DD = 41.1 ft (S = 0.1807, T = 41,995 gpd/ft, Q = 661 gpm, tp = 123 days, efficiency = 70%)

DT = 81.3 ft

Economic Drawdown Constraint (EDC) = 0.4 * 127 ft = 50.8 ft

Physical Drawdown Constraint (PDC) = 127 ft - 60 ft = 67 ft

The EDC is more conservative than the PDC, so the maximum allowable total drawdown is 50.8 ft.

Total drawdown of 81.3 ft is greater than the allowable drawdown of 50.8 ft, so this well is critical.

16274:

Water Column = 124 ft

DP = 5.13 ft

DE = 37.7 ft

DD = 21.9 ft (S = 0.1249, T = 59,669 gpd/ft, Q = 489 gpm, tp = 87 days, efficiency = 70%)

DT = 64.7 ft

EDC = 0.4 * 124 ft = 49.6 ft

PDC = 124 ft - 60 ft = 64 ft

The EDC is more conservative than the PDC, so the maximum allowable total drawdown is 49.6 ft.

Total drawdown of 64.7 ft is greater than the allowable drawdown of 49.6 ft, so this well is critical.

4229:

Water Column = 110 ft

DP = 6.73 ft

DE = 38.3 ft

DD = 28.9 ft (S = 0.2469, T = 55,727 gpd/ft, Q = 641 gpm, tp = 67 days, efficiency = 70%)

DT = 73.9 ft

EDC = 0.4 * 110 ft = 44.0 ft

PDC = 110 ft - 60 ft = 50 ft

The EDC is more conservative than the PDC, so the maximum allowable total drawdown is 44.0 ft.

Total drawdown of 73.9 ft is greater than the allowable drawdown of 44.0 ft, so this well is critical.

Domestic 33-22-34:

Water Column = 98 ft

DP = 3.92 ft

DE = 25.5 ft

DT = 29.4 ft

EDC = 0.4 * 98 ft = 39.2 ft

PDC = 98 ft - 20 ft = 78 ft

The EDC is more conservative than the PDC, so the maximum allowable total drawdown is 39.2 ft

Total drawdown of 29.4 ft is less than the allowable drawdown of 39.2 ft, so this well is not critical.

Conclusion:

This move is being proposed in an area with low saturated thickness and high yielding wells. The GMD3 model was used to determine aquifer conditions, and while the conditions in the model are not poor, they do not indicate that there is sufficient saturated thickness for the wells in the region to be pumping the rates that have been observed in recent inspections. It is likely that if an aquifer pump test were to be conducted, the calculated storage coefficient and transmissivity would demonstrate that the local aquifer can conduct water more readily than the GMD3 model indicates. That stated, this is an area with little remaining water supply, and aquifer conditions will become worse as supply declines. If the applicant were to pump the proposed well at the fully authorized rate and quantity of 1620 gpm and 680 AF, it is likely that impairment would occur. In order to prevent future impairment, GMD3 staff recommends limiting the applicant to a rate of 800 gpm and an annual quantity of 428 AF from the proposed well location. This would create the following net effects at neighboring critical wells (note that negative values indicate net improvement).

7735 & 9682: Net Drawdown = -0.5 ft

8567: Net Drawdown = 1.5 ft

2888 & 16256 & 18800: Net Drawdown = -0.2 ft

6013: Net Drawdown = 1.2 ft

16274: Net Drawdown = 1.6 ft

4229: Net Drawdown = 2.5 ft

Garden City Field Office 4532 W. Jones, Suite B Garden City, KS 67846



Phone: 620-276-2901 Fax: 620-276-9315 www.agriculture.ks.gov

Mike Beam, Secretary

Laura Kelly, Governor

February 4, 2020

GROUNDWATER MANAGEMENT DISTRICT #3 2009 E SPRUCE ST GARDEN CITY KS 67846

Change Application, File No. 10192

Dear Sir or Madam:

We are enclosing a copy of the referenced application, which was submitted by Mike Rome Jr. and appears to be in proper form, for your review.

We are delaying any further action for a period of 15 days from the date of this letter to allow you time to submit your recommendation concerning this application. Please submit your recommendation within the allotted time, or any authorized extension of time thereof.

If you have any questions, please contact me at (620) 276-2901. If you wish to discuss a specific file, please have the file number ready to that I may help you more efficiently.

Sincerely,

Austin McColloch

Assistant Water Commissioner

Enclosure

pc: