

GMD3 Change Review

File No(s): 25031.

DWR office: HQ.

App filed to change: Add Well.

Is Landowner(s) correct in WRIS: Berghaus Living Trust %Dean & Kay.

If NO, is documentation included?

Is Water Use Correspondent correct in WRIS? Yes.

If NO, is documentation included?

Regulation(s) Reviewed: KAR 5-5-16 & KAR 5-23-3

Point of diversion ID No(s) 04 being changed.

	ft. North	ft. West				
Authorized PD						
Proposed PD						
Difference	0	0				
a2 + b2 = c2	0	0	0			

GPS for proposed PD: Lat: Long: .

Is proposed PD stacking on existing WRs? Yes, the additional well will stack on 30950 which already exists.

Is Proposed PU overlapping existing WRs? No change.

Land Owner(s) notified: .

Name Name .

Address Address .

Zip Zip .

Neighboring certified well(s) notified: .

Name Name .

Address Address .

Zip Zip .

Domestic well(s) notified: .

Name Name .

Address Address .

Zip Zip .

Base Acres: .

Perfected Acres: .

Irr. Return-Flow %

Application to move authority from 25031 and stack on 30950 to cover overpumping issues and balance out the water use from the wells.

(Max acres perfection X NIR 80%) / 0.85 = AF allowed

(313.2 X 1.34') / 0.85 = 493.5AF

626 – 493.5 = 132.5AF reduced through consumptive use calculation.

300AF remain at current location

193.5AF added to 30950 = 193.5 + 112 = 305.5AF on this well total.

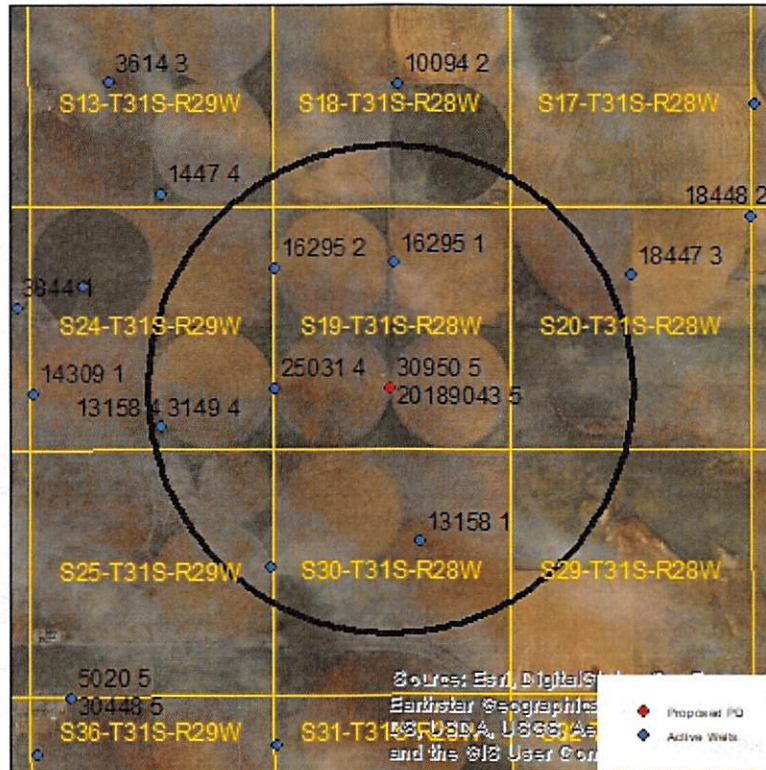
GMD3 Change Review

Is a waiver needed: No. Distance moved and spacing to neighboring wells is met. The consumptive use was used in reduction for an additional well application.

Recommendation: .

Evaluation of proposed additional well for Water Right No 25031

Proposed: Move 193.5 AF of authority at a rate of 120 gpm from the well authorized under water right no. 25031 to the well authorized under water right no. 30950. The water use authority under the well currently authorized by water right no. 25031 will be reduced from 626 AF at 1450 gpm to 300 AF at 1080 gpm. The water use authority under the well currently authorized by water right no. 30950 will be increased from 112 AF at 1200 gpm to 305.5 AF at 1320 gpm.



Wells within 1 mile: 16295 ID 1, 16295 ID 2, 3149 & 13158, 28580, and 13158.

The saturated thickness at the proposed well location is estimated to be 165 ft, based upon measurement at the observation well in section 24-31-29 and local drillers logs. For saturated thicknesses between 150 ft and 200 ft, the maximum allowable Theis drawdown to neighboring critical wells is 3.5 ft.

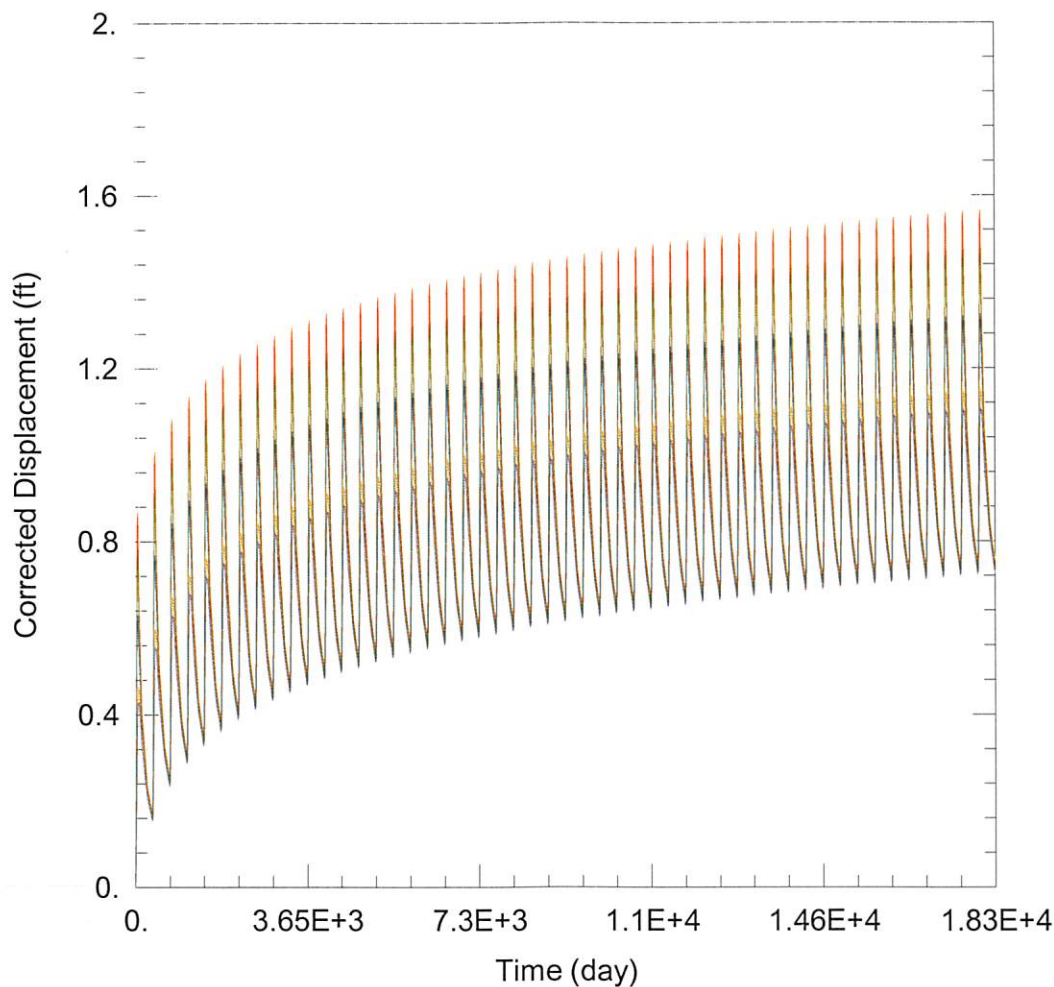
50 year Theis Analysis: The following values were used to run the analysis:

$S = 0.2311$, $T = 21,580 \text{ ft}^2/\text{day}$, $tp_{\text{current}}(25031) = 50 \text{ days}$ (based upon observed rate and reported quantity), $Q_{\text{current}}(25031) = 1200 \text{ gpm}$ (based upon flow test), $tp_{\text{current}}(30950) = 35 \text{ days}$ (based upon observed rate and reported quantity), $Q_{\text{current}}(30950) = 721 \text{ gpm}$ (observed during 2012 field visit), $tp_{\text{proposed}}(30950) = 52 \text{ days}$, $Q_{\text{proposed}}(30950) = 1320 \text{ gpm}$.

Theis drawdown calculations are as follows:

16295 ID 1:	Drawdown from current conditions = 1.32 ft
	Drawdown from proposed conditions = 2.23 ft
	Net drawdown = 0.9 ft
16295 ID 2:	Drawdown from current conditions = 1.57 ft
	Drawdown from proposed conditions = 2.31 ft
	Net drawdown = 0.7 ft
3149 & 13158:	Drawdown from current conditions = 1.47 ft
	Drawdown from proposed conditions = 2.07 ft
	Net drawdown = 0.6 ft
28580:	Drawdown from current conditions = 1.15 ft
	Drawdown from proposed conditions = 1.78 ft
	Net drawdown = 0.6 ft
13158:	Drawdown from current conditions = 1.11 ft
	Drawdown from proposed conditions = 1.88 ft
	Net drawdown = 0.8 ft

Net drawdown effects do not exceed the maximum drawdown allowance of 3.5 ft on any well, so no further evaluation is necessary.



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2019_moves\25031\25031 Current.aqt

Date: 04/29/19

Time: 14:29:35

PROJECT INFORMATION

Company: GMD 3

Project: 25031

Location: Meade County

Test Well: 25031

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
	111256	166871
	113780	166874

Observation Wells

Well Name	X (ft)	Y (ft)
□	111256	166871
□	113780	166874
□ 16295 ID1	113868	169588
□ 16295 ID2	111268	169483
□ 13158 & 3149	108803	166031
□ 28580	111185	163018
□ 13158	114434	163556

SOLUTION

Aquifer Model: Unconfined

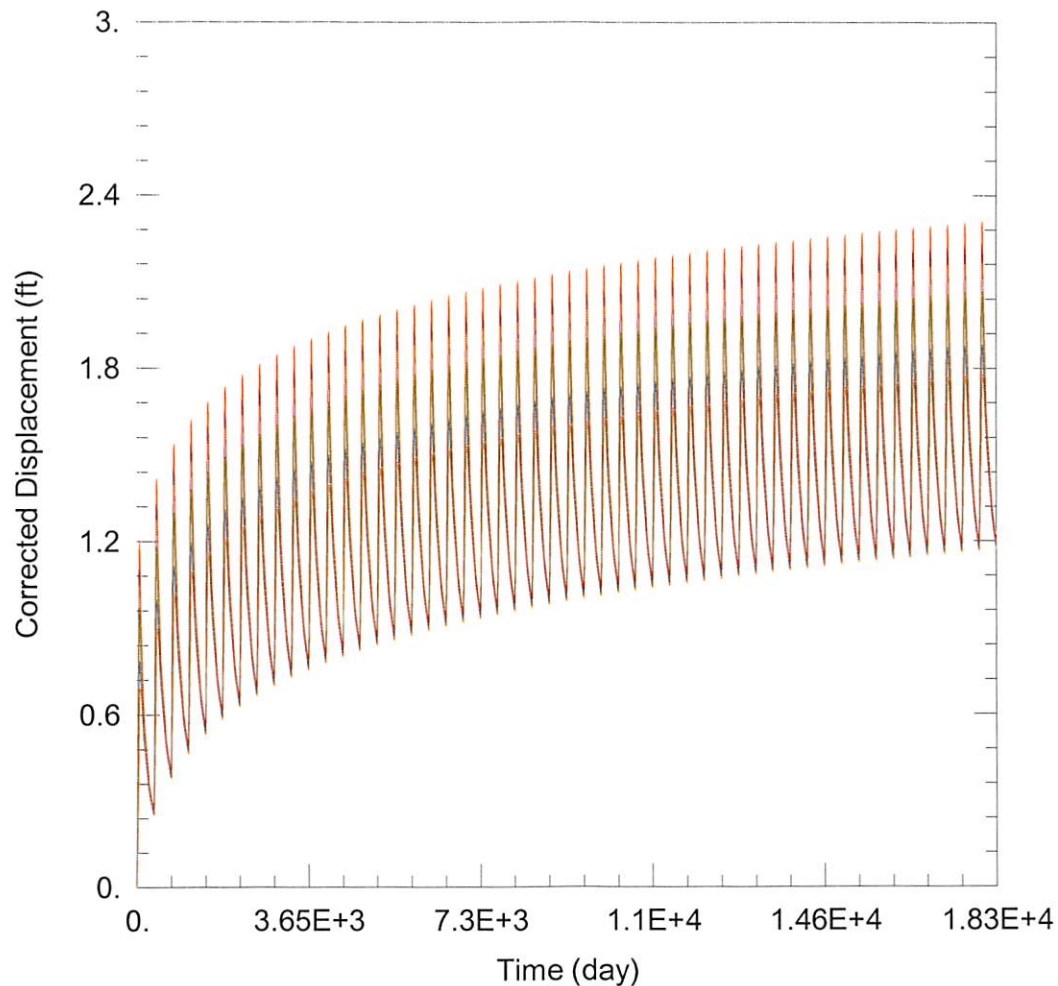
Solution Method: Theis

$T = 2.158E+4 \text{ ft}^2/\text{day}$

$S = 0.2311$

$Kz/Kr = 1.$

$b = 165. \text{ ft}$



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2019_moves\25031\25031 Proposed.aqt

Date: 04/29/19

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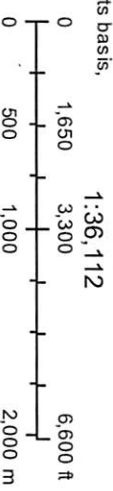
25031: additional well



April 22, 2019
11:17 AM

DISCLAIMER: This map is not intended for conveyances, nor is it a legal survey. The information is presented on a best-efforts basis, and should not be relied upon for making financial, survey, legal or other commitments.

- Wells**
- Other
 - IRR
 - CON
 - DEW
 - DOM
 - FPR
 - HYD
 - IND
 - MUN
 - REC
 - STK
 - THX
 - Empty
 - WWC5 WELLS GMD3
- Sections**



AMOUNT STATISTICS REPORT FOR POINTS OF DIVERSION UNDER A 30950 00

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AMOUNT STATISTICS REPORT FOR POINTS OF DIVERSION UNDER A 30950 00 IRR

Water Right and Points of Diversion Within 1.00 miles of point defined as:

1320 Feet North and 2600 Feet West of the Southeast Corner of Section 19 T 31S R 28W

GROUNDWATER ONLY

File Number	Use	ST	SR	Dist (ft)	Q4	Q3	Q2	Q1	FeetN	FeetW	Sec	Twp	Rng	ID	Batt	Auth_Quan	Add_Quan	Unit
A__ 3149 00	IRR	NK	G	5096	--	SW	SW	SE	475	2453	24	31	29W	4		258.00	258.00	AF
A__ 13158 D1	IRR	NK	G	5096	--	SW	SW	SE	475	2453	24	31	29W	4		373.00	373.00	AF
A__ 13158 D2	IRR	NK	G	3356	--	NC	SW	NE	3300	1980	30	31	28W	1		724.00	724.00	AF
A__ 16295 00	IRR	NK	G	2731	--	SW	NW	NE	4050	2550	19	31	28W	1		353.00	353.00	AF
Same				3670	NC	W2	W2	NW	3960	5150	19	31	28W	2		281.00	281.00	AF
A__ 25031 00	IRR	NK	G*	2576	--	--	--	--	1345	5230	19	31	28W	4		626.00	626.00	AF
A__ 28580 00	IRR	NK	G	4664	--	SE	SE	NE	2775	75	25	31	29W	2		309.00	309.00	AF
A__ 30950 00	IRR	NK	G	0	--	--	CW	SE	1320	2600	19	31	28W	5		112.00	112.00	AF
T__20189043 00	IRR	GY	G	0	--	--	CW	SE	1320	2600	19	31	28W	5		130.00	.00	AF

Total Net Quantities Authorized:	Direct	Storage
Total Requested Amount (AF) =	.00	.00
Total Permitted Amount (AF) =	.00	.00
Total Inspected Amount (AF) =	.00	.00
Total Pro_Cert Amount (AF) =	.00	.00
Total Certified Amount (AF) =	3036.00	.00
Total Vested Amount (AF) =	.00	.00
TOTAL AMOUNT (AF) =	3036.00	.00

An * after the source of supply indicates a pending application for change under the file number.

An * after the ID indicates a 15 AF exemption was granted under the file number.

A "G" in the Batt column indicates the GEO CTR of a battery. A "B" indicates a well in the battery.

The number in the Batt column is the number of wells in the battery.

Water Rights and Points of Diversion Within 1.00 miles of point defined as:

1320 Feet North and 2600 Feet West of the Southeast Corner of Section 19 T 31S R 28W

GROUNDWATER ONLY

WATER USE CORRESPONDENTS:

File Number	Use	ST	SR
A__ 3149 00	IRR	NK	G
> DEAN & KAY BERGHAUS LIVING TRUSTS			
>			
> PO BOX 602			
> MEADE KS 67864			
>-----			
A__ 13158 D1	IRR	NK	G
> DEAN & KAY BERGHAUS LIVING TRUSTS			
>			
> PO BOX 602			
> MEADE KS 67864			
>-----			
A__ 13158 D2	IRR	NK	G
> TWIST FAMILY FARMS LLC			
> JFF TWIST			

Spacing is MET!!

> 130 IROQUOIS RD
> BOULDER CO 80303

>-----
A__ 16295 00 IRR NK G

> MICKEY G ROSS
>
> 16022 18 RD
> MEADE KS 67864
>-----

A__ 25031 00 IRR NK G

> DEAN & KAY BERGHAUS LIVING TRUSTS
>
> PO BOX 602
> MEADE KS 67864
>-----

A__ 28580 00 IRR NK G

> DEAN & KAY BERGHAUS LIVING TRUSTS
>
> PO BOX 602
> MEADE KS 67864
>-----

A__ 30950 00 IRR NK G

> DEAN & KAY BERGHAUS LIVING TRUSTS
>
> PO BOX 602
> MEADE KS 67864
>-----

T__20189043 00 IRR GY G

> DEAN & KAY BERGHAUS LIVING TRUSTS
>
> PO BOX 602
> MEADE KS 67864
>-----

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