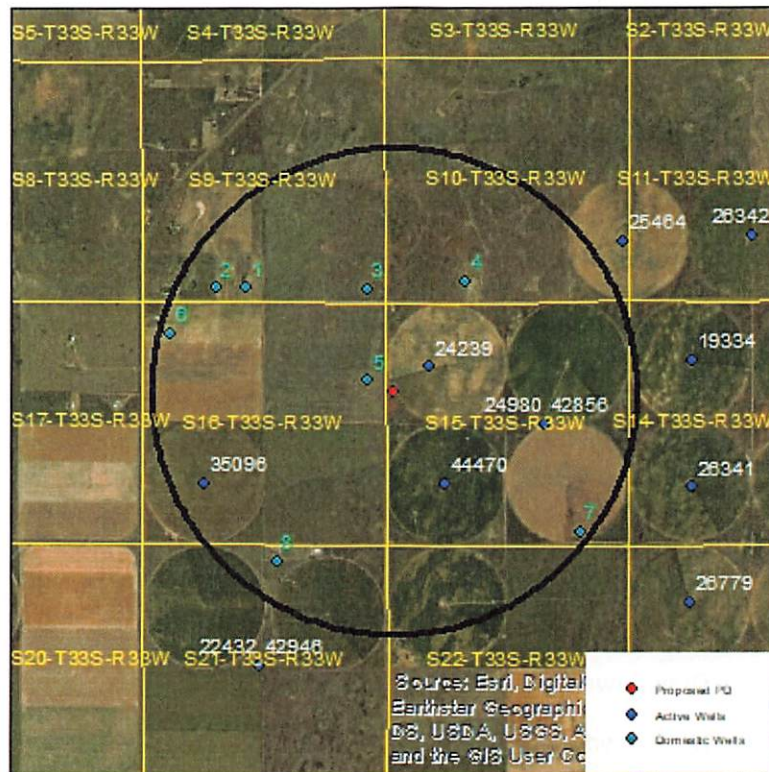


Evaluation of proposed move for Water Right No. 24239

Proposed: Move water right no. 24239 a distance of 947 ft to the southwest.



Wells within 1 mile: 24980 & 42856, 44470, 35096, and 8 domestic wells, numbered on the above map.

The saturated thickness at the proposed well location is estimated to be 256 ft, based upon the GMD3 model. For saturated thickness greater than 200 ft, the drawdown allowance is 4.0 ft.

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

$$S = 0.2566, T = 29,565 \text{ ft}^2/\text{day},$$

$t_{p\text{current}} = 95$ days (based upon average use and observed rate), $Q_{\text{current}} = 376$ gpm (based upon 2014 field inspection), $t_{p\text{proposed}} = 84$ days, $Q_{\text{proposed}} = 710$ gpm

Theis drawdowns were calculated as follows:

24980 & 42856:	Drawdown from current location = 0.47 ft
	Drawdown from proposed location = 0.71 ft
	Net drawdown = 0.2 ft
44470:	Drawdown from current location = 0.50 ft
	Drawdown from proposed location = 0.93 ft
	Net drawdown = 0.4 ft

35096: Drawdown from current location = 0.29 ft
Drawdown from proposed location = 0.56 ft
Net drawdown = **0.3 ft**

Domestic 1: Drawdown from current location = 0.35 ft
Drawdown from proposed location = 0.64 ft
Net drawdown = **0.3 ft**

Domestic 2: Drawdown from current location = 0.32 ft
Drawdown from proposed location = 0.58 ft
Net drawdown = **0.3 ft**

Domestic 3: Drawdown from current location = 0.56 ft
Drawdown from proposed location = 0.94 ft
Net drawdown = **0.4 ft**

Domestic 4: Drawdown from current location = 0.59 ft
Drawdown from proposed location = 0.80 ft
Net drawdown = **0.2 ft**

Domestic 5: Drawdown from current location = 0.72 ft
Drawdown from proposed location = 1.85 ft
Net drawdown = **1.1 ft**

Domestic 6: Drawdown from current location = 0.29 ft
Drawdown from proposed location = 0.52 ft
Net drawdown = **0.2 ft**

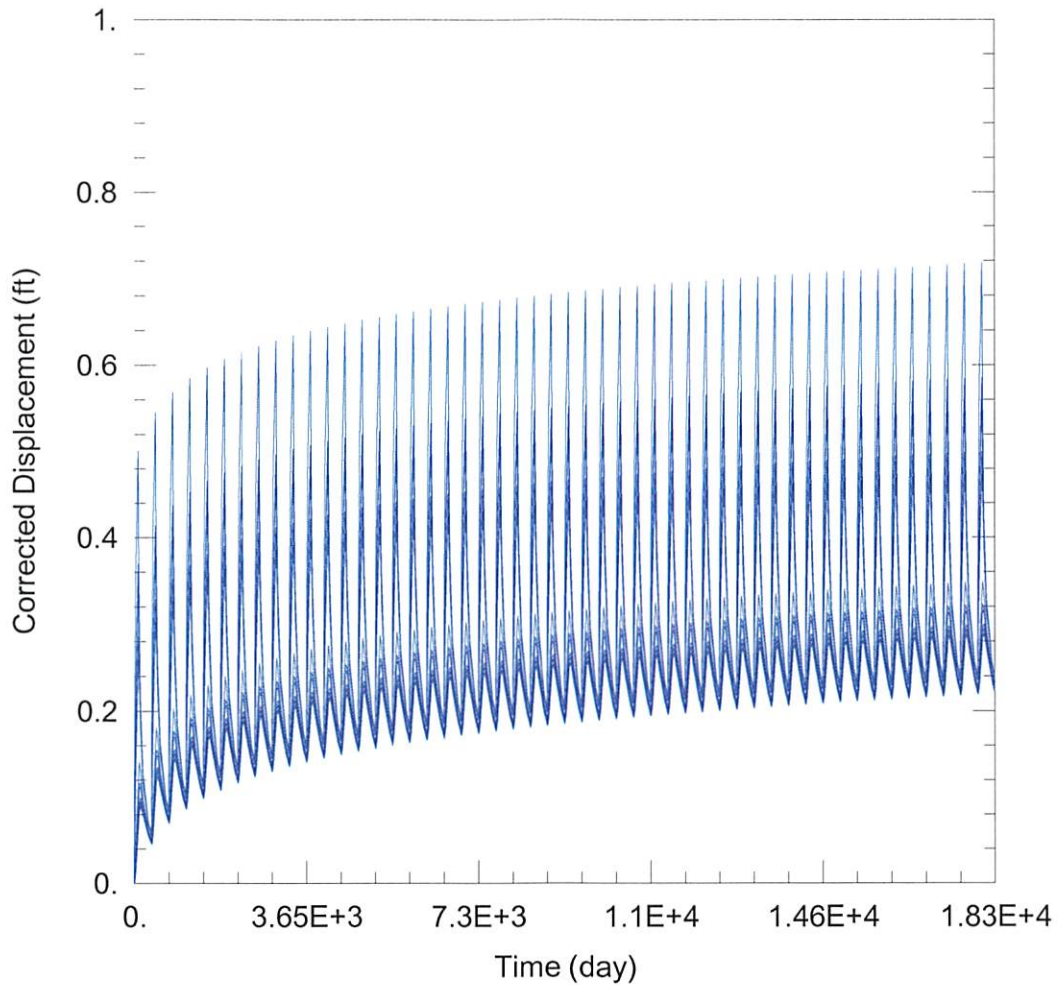
Domestic 7: Drawdown from current location = 0.32 ft
Drawdown from proposed location = 0.52 ft
Net drawdown = **0.2 ft**

Domestic 8: Drawdown from current location = 0.30 ft
Drawdown from proposed location = 0.58 ft
Net drawdown = **0.3 ft**

Net drawdown does not exceed the drawdown allowance of 4.0 ft for any well within 1 mile of the proposed location. Therefore, critical well analysis is not necessary.

Conclusion:

The proposed move is likely to create minimal effects on neighboring wells and is unlikely to cause impairment. GMD3 staff recommends approval of this proposal.



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2021_Moves\24239\24239 Current.aqt

Date: 06/21/21

Time: 14:40:34

PROJECT INFORMATION

Company: GMD 3

Project: 24239

Location: Seward County

WELL DATA

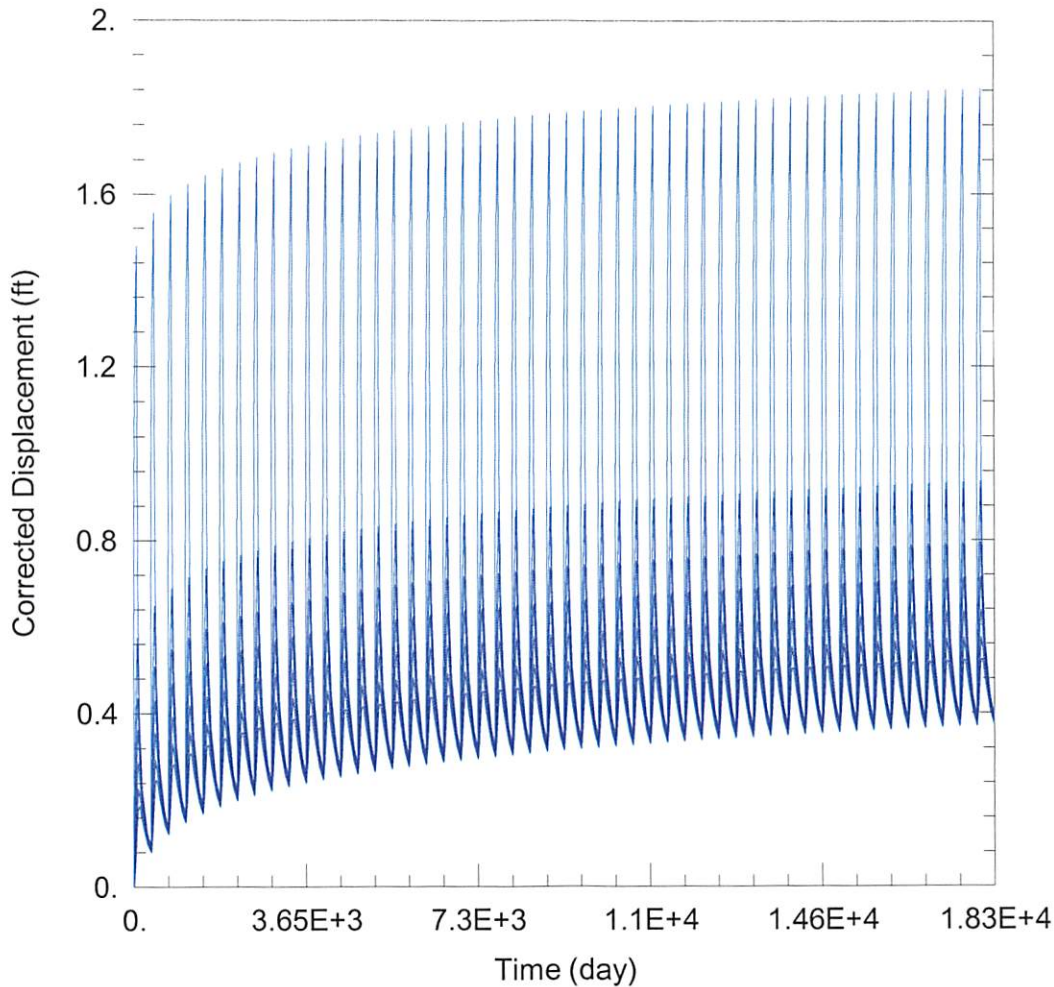
Pumping Wells

Observation Wells

Well Name	X (ft)	Y (ft)
24239	-29704	111346

Well Name	X (ft)	Y (ft)
□	-29704	111346
□ <u>24980 & 42856</u>	-27229	110099
□ <u>44470</u>	-29357	108805
□ <u>35096</u>	-34631	108807
□ <u>Domestic 1</u>	-33723	113040
□ <u>Domestic 2</u>	-34385	113046
□ <u>Domestic 3</u>	-31078	113015
□ <u>Domestic 4</u>	-28930	113200
□ <u>Domestic 5</u>	-31072	111043
□ <u>Domestic 6</u>	-35374	112073
□ <u>Domestic 7</u>	-26435	107775
□ <u>Domestic 8</u>	-33045	107124

SOLUTION



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2021_Moves\24239\24239 Proposed.aqt

Date: 06/21/21

Time: 14:40:28

PROJECT INFORMATION

Company: GMD 3

Project: 24239

Location: Seward County

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
24239	-30488	110816

Observation Wells

Well Name	X (ft)	Y (ft)
□	-30488	110816
□ 24980 & 42856	-27229	110099
□ 44470	-29357	108805
□ 35096	-34631	108807
□ Domestic 1	-33723	113040
□ Domestic 2	-34385	113046
□ Domestic 3	-31078	113015
□ Domestic 4	-28930	113200
□ Domestic 5	-31072	111043
□ Domestic 6	-35374	112073
□ Domestic 7	-26435	107775
□ Domestic 8	-33045	107124

SOLUTION