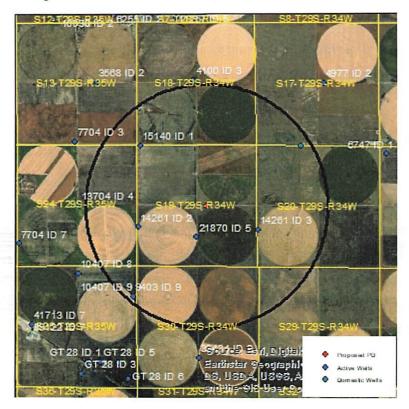
Evaluation of proposed move for Water Right No. 21870

Proposed: Move water right no. 21870 a distance of 1,419 ft to the northeast.



Wells within 1 mile: 15140, 14261 ID2, 14261 ID3, 9403 & 10407, and a domestic well in section 20-29-34.

The saturated thickness at the proposed well location is estimated to be 238 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 = 0.2822, T = 14,893 ft²/day, $tp_{current} = 174$ days (based on average use and observed rate), $Q_{current} = 368$ gpm (based on 2018 field inspection), $tp_{proposed} = 161$ days, $Q_{proposed} = 1145$ gpm

Theis drawdowns were calculated as follows:

15140:

Drawdown from current location = 0.89 ft

Drawdown from proposed location = 2.83 ft

Net drawdown = 1.9 ft

14261 ID2:

Drawdown from current location = 1.23 ft

Drawdown from proposed location = 3.26 ft

Net drawdown = 2.0 ft

14261 ID3:

Drawdown from current location = 1.20 ft

Drawdown from proposed location = 3.69 ft

Net drawdown = 2.5 ft

9403 & 10407:

Drawdown from current location = 1.00 ft

Drawdown from proposed location = 2.45 ft

Net drawdown = 1.5 ft

Domestic 20-29-34:

Drawdown from current location = 0.76 ft

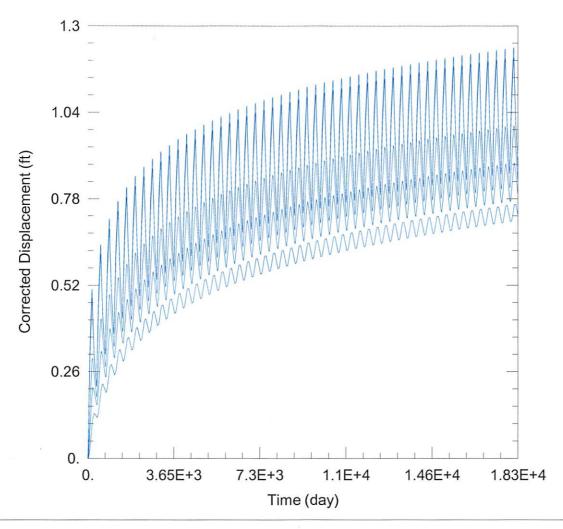
Drawdown from proposed location = 2.50 ft

Net drawdown = 1.7 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\2022_moves\21870\21870 Current.aqt

Date: 03/02/22 Time: 15:31:41

PROJECT INFORMATION

Company: GMD 3 Project: 21870

Location: Haskell County

WELL DATA

Pumping Wells

X (ft)
Y (ft)

Well Name	X (ft)	Y (ft)
21870	-81644	230404

Well Name	X (ft)	Y (ft)
	-81644	230404
15140	-84097	234377
□ 14261 ID2	-84166	230852
□ 14261 ID3	-78974	230742
9403 & 10407	-84407	227841
□ Domestic 20-29-34	-77082	234370

Observation Wells

SOLUTION

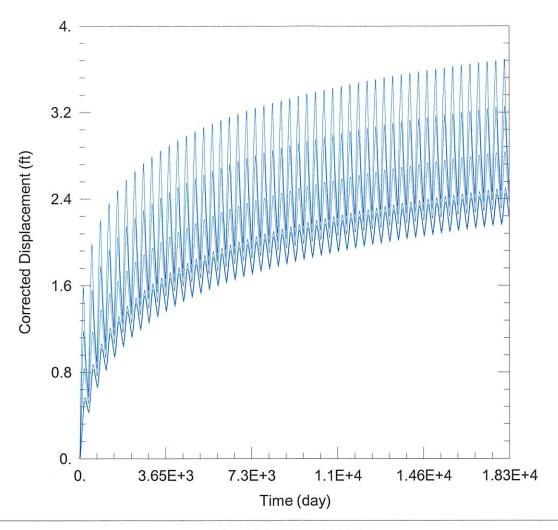
Aquifer Model: Unconfined

 $T = 1.489E + 4 \text{ ft}^2/\text{day}$

Kz/Kr = 1.

Solution Method: Theis
S = 0.2822

b = $\frac{0.2022}{238}$. ft



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2022_moves\21870\21870 Proposed.aqt

Date: 03/02/22 Time: 15:31:35

PROJECT INFORMATION

Company: GMD 3 Project: 21870

Location: Haskell County

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
21870	-81204	231753

Well Name	X (ft)	Y (ft)
0	-81204	231753
15140	-84097	234377
□ 14261 ID2	-84166	230852
□ 14261 ID3	-78974	230742
9403 & 10407	-84407	227841
 Domestic 20-29-34 	-77082	234370

Observation Wells

SOLUTION

Aquifer Model: Unconfined

 $= 1.489E + 4 \text{ ft}^2/\text{day}$

Kz/Kr = 1.

Solution Method: Theis

S = 0.2822= 238. ft