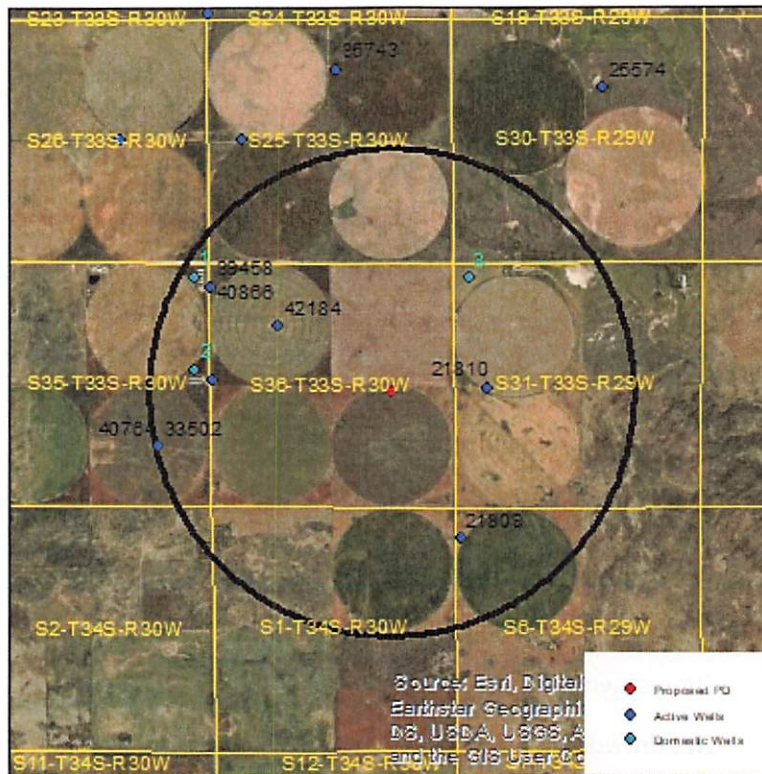


Evaluation of proposed move for Water Right No 21810

Proposed: Move water right no. 21810 a distance of 2,080 ft to the west.



Wells within 1 mile: 42184, 39459 & 40865, 33502 & 40764, 21809, 39458 & 40866, and three domestic wells, numbered on the above map.

The saturated thickness at the proposed well location is estimated to be 275 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:

$S = 0.1958, T = 6,158.2 \text{ ft}^2/\text{day},$

$tp_{\text{current}} = 143 \text{ days (based upon average use and observed rate)}, Q_{\text{current}} = 649 \text{ gpm (based upon 2018 field inspection)}, tp_{\text{proposed}} = 108 \text{ days}, Q_{\text{proposed}} = 1160 \text{ gpm}$

Theis drawdowns were calculated as follows:

- 42184:
 - Drawdown from current location = 2.67 ft
 - Drawdown from proposed location = 4.95 ft
 - Net drawdown = **2.3 ft**

- 39459 & 40865:
 - Drawdown from current location = 2.32 ft
 - Drawdown from proposed location = 4.06 ft
 - Net drawdown = **1.7 ft**

33502 & 40764: Drawdown from current location = 2.05 ft
Drawdown from proposed location = 3.41 ft
Net drawdown = **1.4 ft**

21809: Drawdown from current location = 3.29 ft
Drawdown from proposed location = 4.35 ft
Net drawdown = **1.1 ft**

39458 & 40866: Drawdown from current location = 2.22 ft
Drawdown from proposed location = 3.70 ft
Net drawdown = **1.5 ft**

Domestic 1: Drawdown from current location = 2.14 ft
Drawdown from proposed location = 3.52 ft
Net drawdown = **1.4 ft**

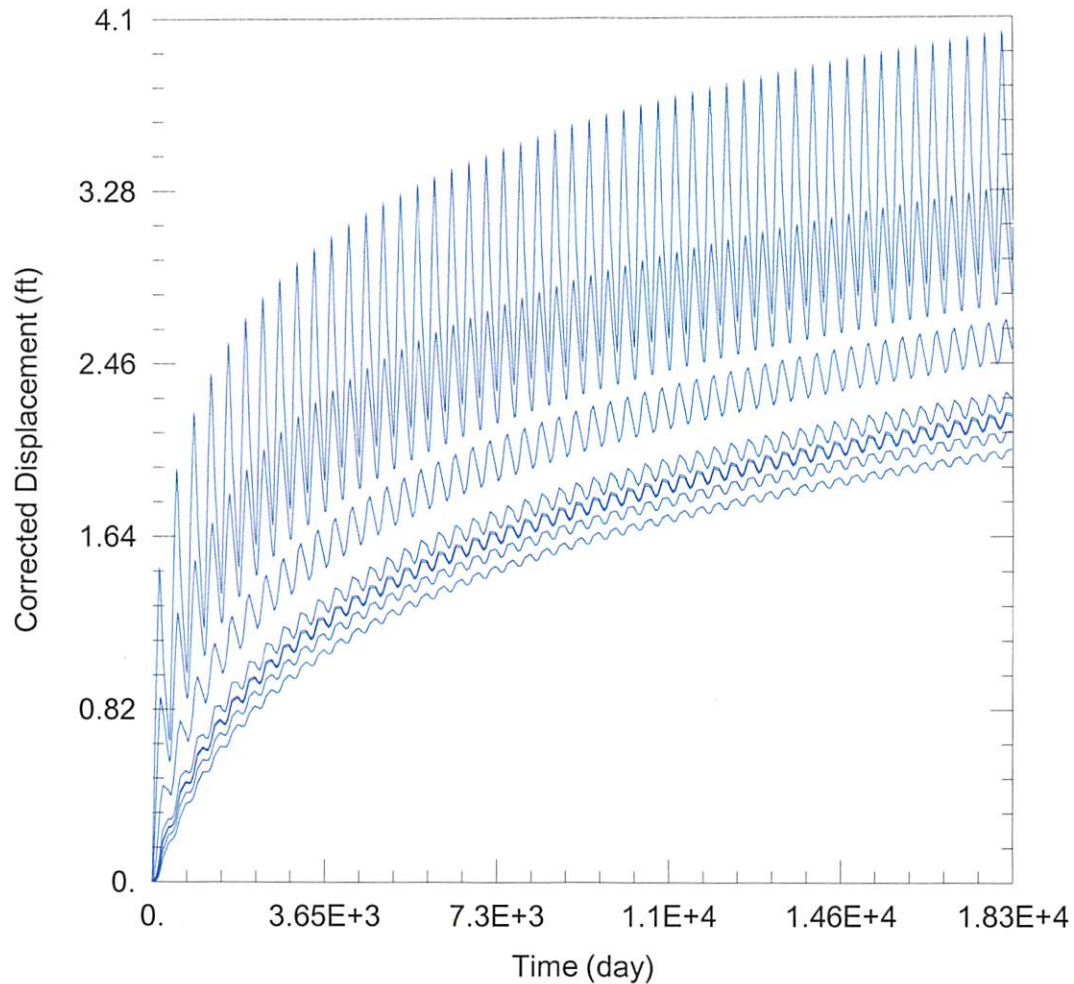
Domestic 2: Drawdown from current location = 2.23 ft
Drawdown from proposed location = 3.82 ft
Net drawdown = **1.6 ft**

Domestic 3: Drawdown from current location = 4.03 ft
Drawdown from proposed location = 4.84 ft
Net drawdown = **0.8 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\21810\21810 Current.aqt

Date: 02/08/21

Time: 15:01:40

PROJECT INFORMATION

Company: GMD 3

Project: 21810

Location: Meade County

Test Well: 21810

WELL DATA

Pumping Wells

Observation Wells

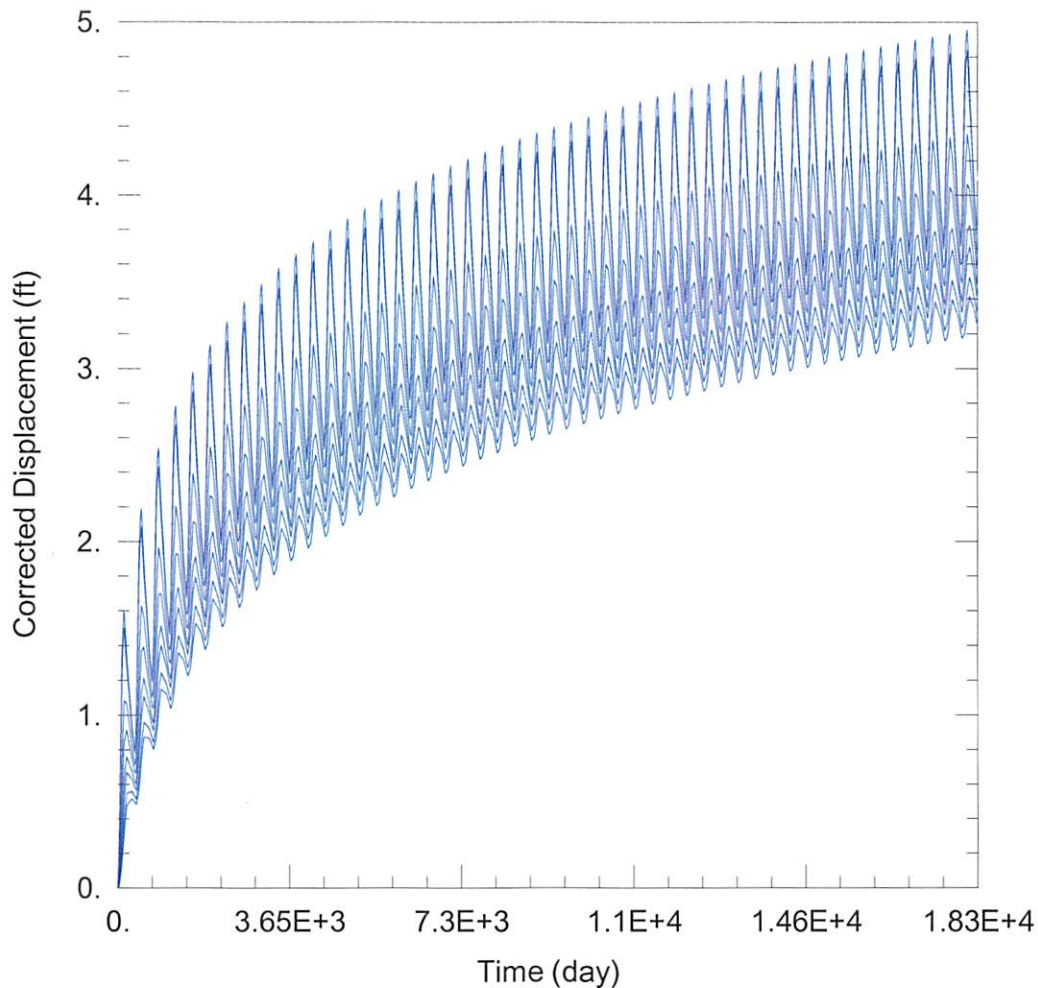
Well Name	X (ft)	Y (ft)
21810	80453	94176

Well Name	X (ft)	Y (ft)
□	80453	94176
□ 42184	75887	95487
□ 39459 & 40865	74482	94323
□ 33502 & 40764	73287	92889
□ 21809	79874	90882
□ 39458 & 40866	74408	96347
□ Domestic 1	74065	96540
□ Domestic 2	74090	94557
□ Domestic 3	80059	96532

SOLUTION

Aquifer Model: Unconfined

Solution Method: Theis



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2021_Moves\21810\21810 Proposed.aqt

Date: 02/08/21

Time: 15:01:30

PROJECT INFORMATION

Company: GMD 3

Project: 21810

Location: Meade County

Test Well: 21810

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
21810	78376	94071

Observation Wells

Well Name	X (ft)	Y (ft)
□	78376	94071
□ 42184	75887	95487
□ 39459 & 40865	74482	94323
□ 33502 & 40764	73287	92889
□ 21809	79874	90882
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SOLUTION

Aquifer Model: Unconfined

Solution Method: Theis