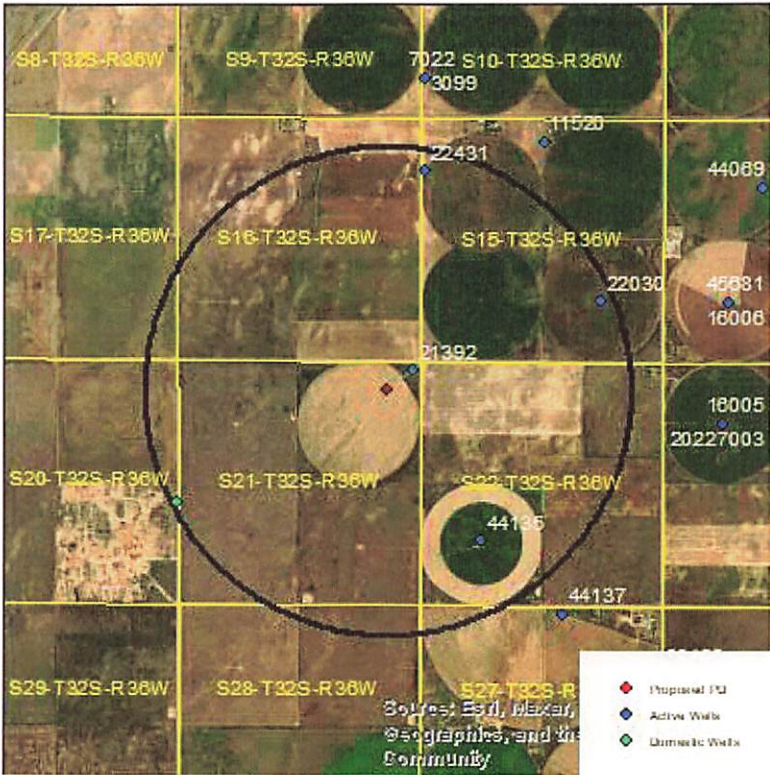


Evaluation of proposed move for Water Right No. 21392

Proposed: Move water right no. 21392 to a new well location, a distance of 707 ft to the southwest.



Wells within 1 mile: 22431, 22030, 44135, and a domestic well in section 20-32-36.

The saturated thickness at the proposed well location is estimated to be 248 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:

$S = 0.1787$, $T = 14,736 \text{ ft}^2/\text{day}$, $tp_{\text{current}} = 80 \text{ days}$ (based on average use and observed rate),
 $Q_{\text{current}} = 350 \text{ gpm}$ (based on 2018 water use report), $tp_{\text{proposed}} = 97 \text{ days}$, $Q_{\text{proposed}} = 635 \text{ gpm}$

Theis drawdowns were calculated as follows:

22431: Drawdown from current location = 0.49 ft
 Drawdown from proposed location = 1.00 ft
 Net drawdown = **0.5 ft**

22030: Drawdown from current location = 0.49 ft
 Drawdown from proposed location = 0.98 ft
 Net drawdown = **0.5 ft**

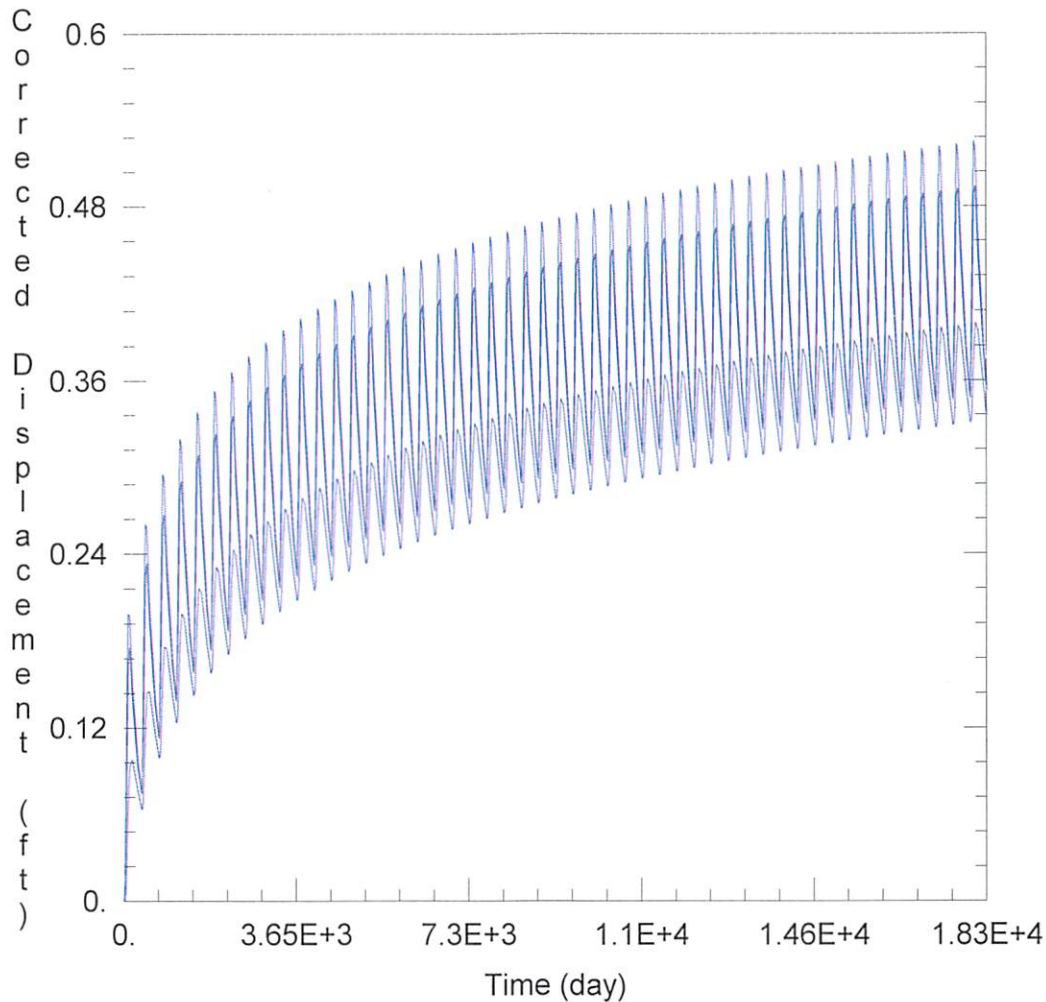
44135: Drawdown from current location = 0.52 ft
Drawdown from proposed location = 1.17 ft
Net drawdown = 0.6 ft

Domestic 20-32-36: Drawdown from current location = 0.40 ft
Drawdown from proposed location = 0.96 ft
Net drawdown = 0.6 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 appears unlikely to cause impairment. Any concerned neighbors should contact GMD3 at (620) 275-7147 or the Division of Water Resources at (620) 276-2901.



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2024_moves\21392\21392 Current.aqt

Date: 04/23/24

Time: 15:49:37

PROJECT INFORMATION

Company: GMD 3

Project: 21392

Location: Stevens County

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
21392	-125662	139193

Observation Wells

Well Name	X (ft)	Y (ft)
□	-125662	139193
□ <u>22431</u>	-125410	143492
□ <u>22030</u>	-121610	140675
□ <u>44135</u>	-124194	135513
□ <u>Domestic 20-32-36</u>	-130816	136367

SOLUTION

Aquifer Model: Unconfined

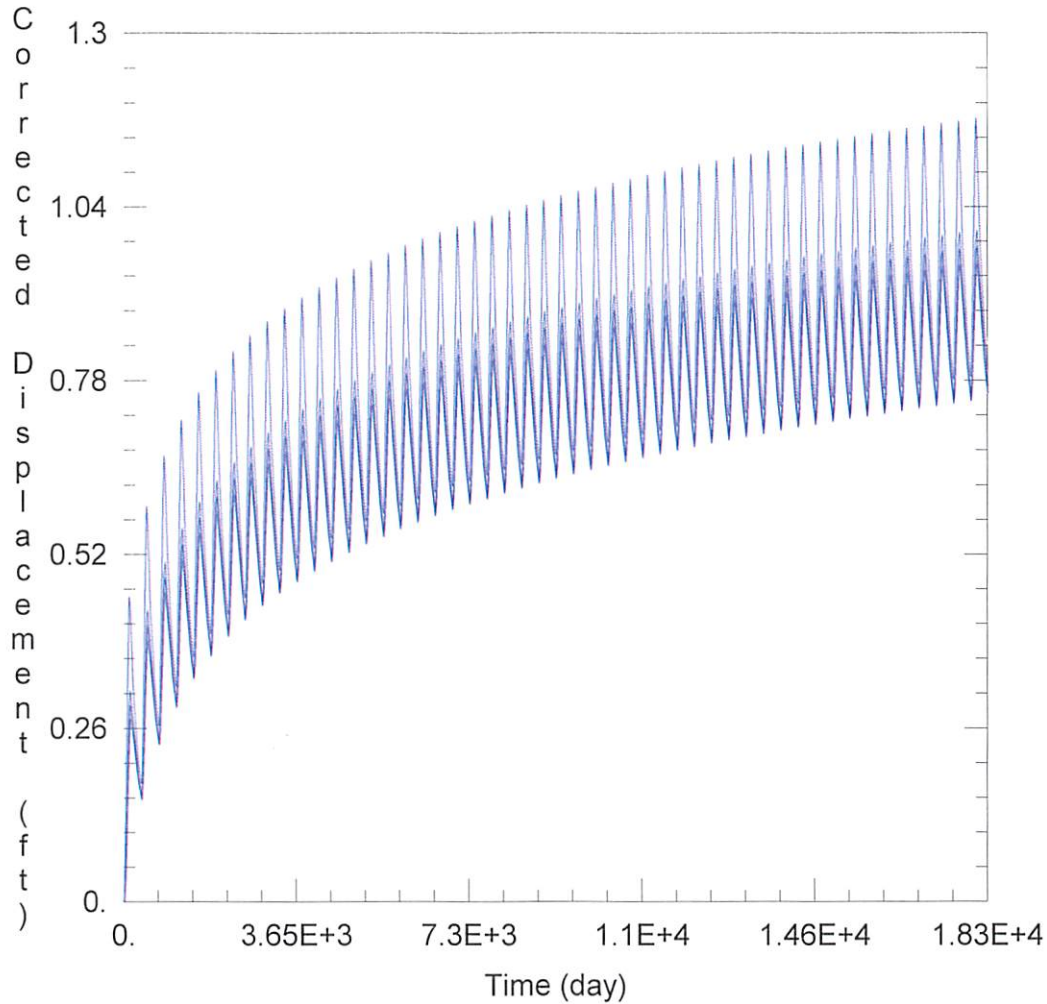
Solution Method: Theis

T = 1.474E+4 ft²/day

S = 0.1787

Kz/Kr = 1.

b = 248. ft



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2024_moves\21392\21392 Proposed.aqt

Date: 04/23/24

Time: 15:49:30

PROJECT INFORMATION

Company: GMD 3

Project: 21392

Location: Stevens County

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
21392	-126223	138763

Observation Wells

Well Name	X (ft)	Y (ft)
□	-126223	138763
□ <u>22431</u>	-125410	143492
□ <u>22030</u>	-121610	140675
□ <u>44135</u>	-124194	135513
□ <u>Domestic 20-32-36</u>	-130816	136367

SOLUTION

Aquifer Model: Unconfined

Solution Method: Theis

T = 1.474E+4 ft²/day

S = 0.1787

Kz/Kr = 1.

b = 248. ft