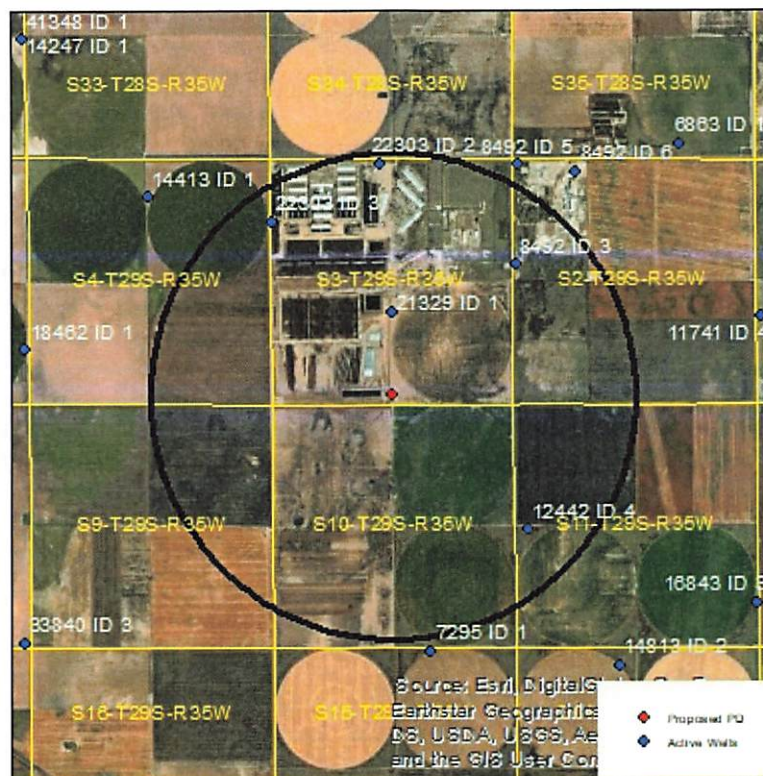


Evaluation of proposed move for Water Right No. 21329

Proposed: Move water right no. 21329 to a new well location, a distance of 1,789 ft to the south.



Wells within 1 mile: 22303 ID2, 22303 ID3, 8492, and 12442.

The saturated thickness at the proposed well location is estimated to be 168 ft, based upon the GMD3 model. For saturated thickness between 150 ft and 200 ft, the drawdown allowance is 3.5 ft.

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

$S = 0.2834$, $T = 25,080 \text{ ft}^2/\text{day}$, $tp_{\text{current}} = 86 \text{ days}$ (based on average use and reported rate), $Q_{\text{current}} = 400 \text{ gpm}$ (based on 2012 report), $tp_{\text{proposed}} = 95 \text{ days}$, $Q_{\text{proposed}} = 1525 \text{ gpm}$

Theis drawdowns were calculated as follows:

22303 ID2: Drawdown from current location = 0.45 ft
Drawdown from proposed location = 1.38 ft
Net drawdown = **0.9 ft**

22303 ID3: Drawdown from current location = 0.45 ft
Drawdown from proposed location = 1.46 ft
Net drawdown = **1.0 ft**

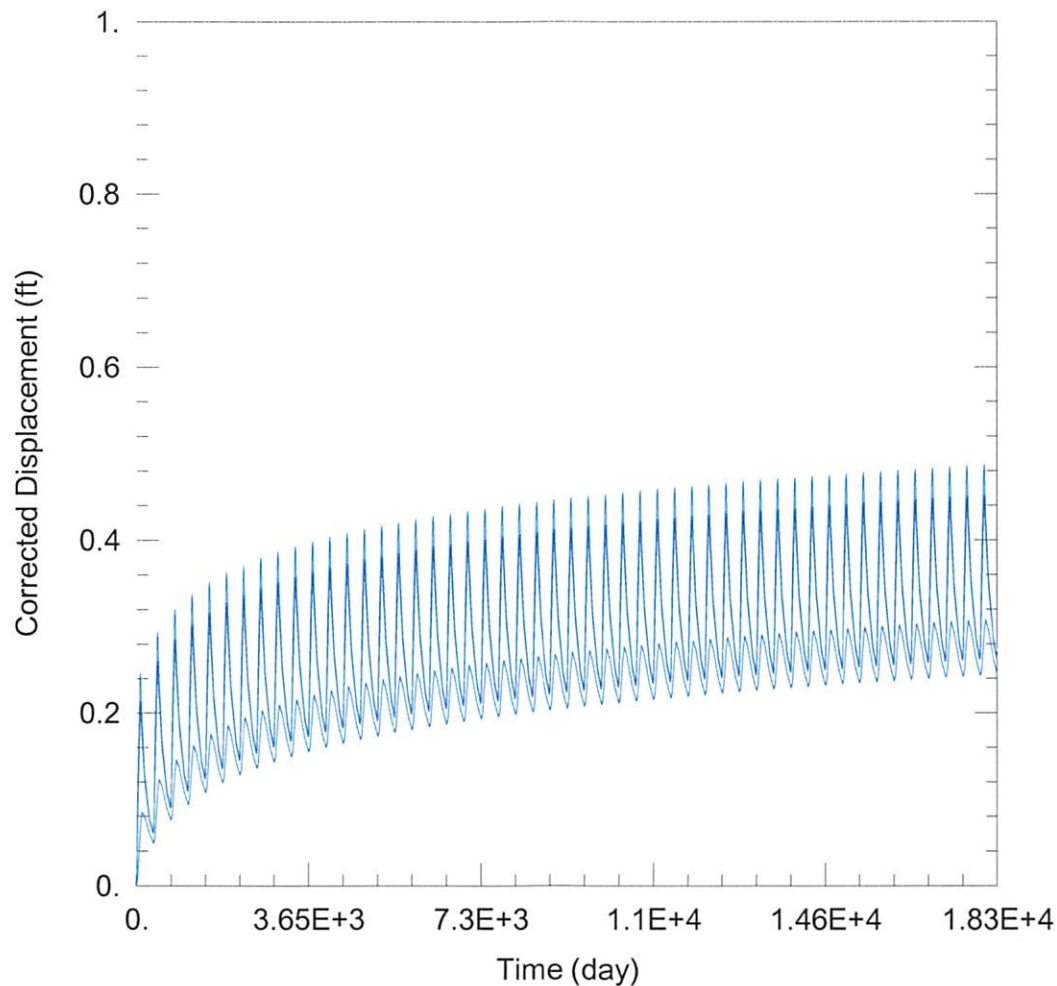
8492: Drawdown from current location = 0.49 ft
Drawdown from proposed location = 1.64 ft
Net drawdown = **1.2 ft**

12442: Drawdown from current location = 0.31 ft
Drawdown from proposed location = 1.58 ft
Net drawdown = **1.3 ft**

Net drawdown does not exceed the drawdown allowance of 3.5 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\2022_moves\21329\21329 Current.aqt

Date: 06/23/22

Time: 10:28:42

PROJECT INFORMATION

Company: GMD 3

Project: 21329

Location: Grant County

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
21329	-97481	246944

Observation Wells

Well Name	X (ft)	Y (ft)
□	-97481	246944
□ 22303 ID2	-97730	250182
□ 22303 ID3	-100082	248931
□ 8492	-94781	247991
□ 12442	-94540	242251

SOLUTION

Aquifer Model: Unconfined

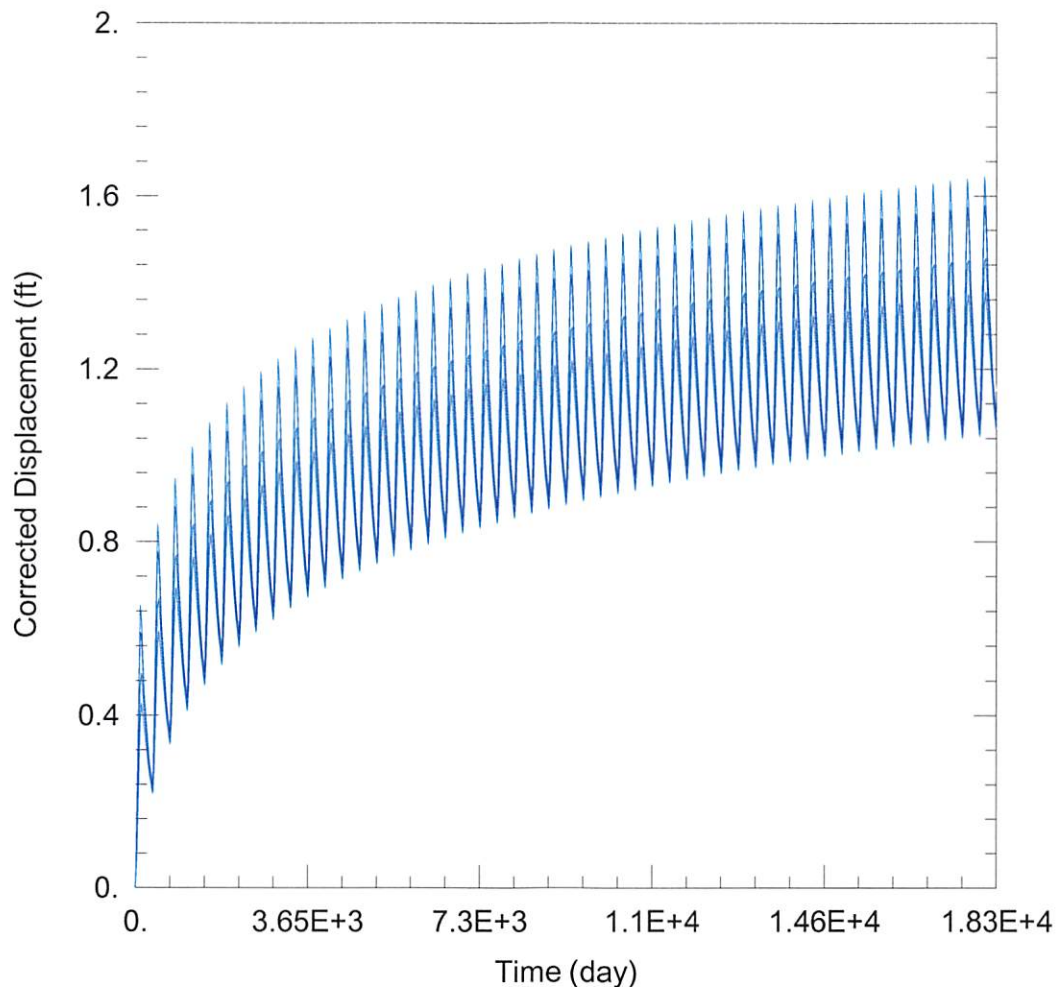
Solution Method: Theis

T = 2.508E+4 ft²/day

S = 0.2834

Kz/Kr = 1.

b = 168. ft



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2022_moves\21329\21329 Proposed.aqt

Date: 06/23/22

Time: 10:28:36

PROJECT INFORMATION

Company: GMD 3

Project: 21329

Location: Grant County

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
21329	-97457	245156

Observation Wells

Well Name	X (ft)	Y (ft)
□	-97457	245156
□ <u>22303 ID2</u>	-97730	250182
□ <u>22303 ID3</u>	-100082	248931
□ <u>8492</u>	-94781	247991
□ <u>12442</u>	-94540	242251

SOLUTION

Aquifer Model: Unconfined

Solution Method: Theis

$T = 2.508E+4 \text{ ft}^2/\text{day}$

$S = 0.2834$

$Kz/Kr = 1.$

$b = 168. \text{ ft}$