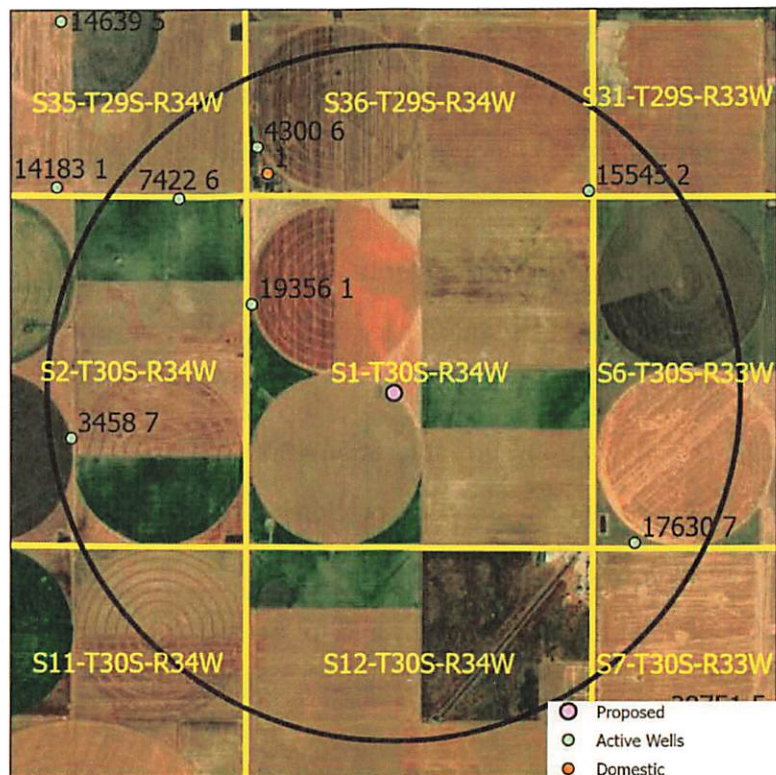


Evaluation of proposed move for Water Right No. 19356

Proposed: Move water right no. 19356 a distance of 777 ft to the southeast to a new location.



Wells within 1 mile: 7422, 4300, 15545, 3458, 17630 and one domestic well in S36-29-34.

The saturated thickness at the proposed well location is estimated to be 233.87 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:

$S = 0.063$, $T = 51,751 \text{ ft}^2/\text{day}$, $tp_{\text{current}} = 114 \text{ days}$ (based on average use and observed rate),

$Q_{\text{current}} = 450 \text{ gpm}$ (based on 2017 water use report), $tp_{\text{proposed}} = 77 \text{ days}$, $Q_{\text{proposed}} = 945 \text{ gpm}$

Theis drawdowns were calculated as follows:

7422: Drawdown from current location = 0.71 ft
 Drawdown from proposed location = 1.27 ft
 Net drawdown = **0.6 ft**

7422: Drawdown from current location = 0.66 ft
 Drawdown from proposed location = 1.16 ft
 Net drawdown = **0.5 ft**

15545: Drawdown from current location = 0.50 ft
Drawdown from proposed location = 0.73 ft
Net drawdown: 0.3

3458: Drawdown from current location = 0.56 ft
Drawdown from proposed location = 0.96 ft
Net drawdown: 0.4

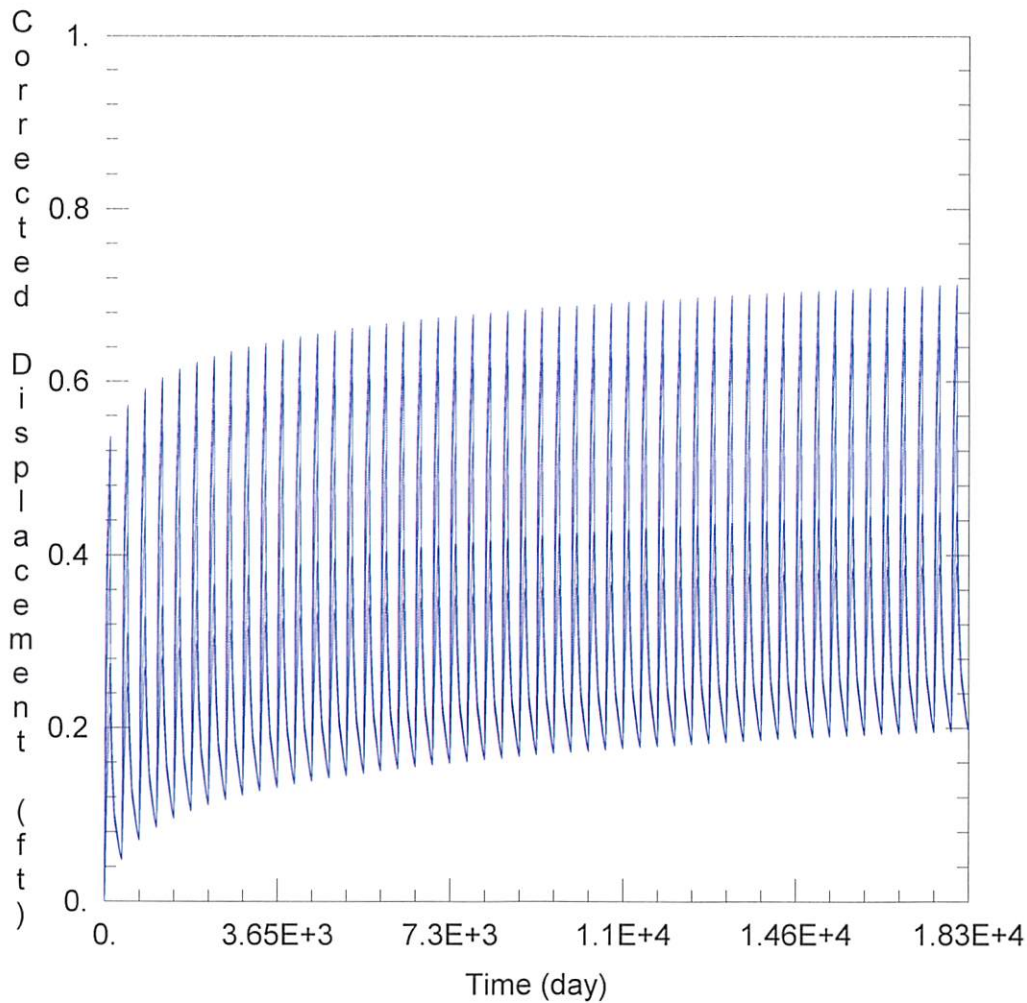
17630: Drawdown from current location = 0.39 ft
Drawdown from proposed location = 0.61 ft
Net drawdown: 0.2

Domestic S36-29-34: Drawdown from current location = 0.71 ft
Drawdown from proposed location = 1.26 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\scanstation\Documents\move requests\19356\19356.aqt
 Date: 11/25/24 Time: 16:10:33

PROJECT INFORMATION

Test Well: 19356

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
19356	-57662	216899

Observation Wells

Well Name	X (ft)	Y (ft)
□	-57662	216899
□ 7422	-58782	218496
□ 4300	-57579	219276
□ 15545	-52543	218600
□ 3458	-60415	214854
□ 17630	-51833	213267
□ Domestic	-57422	218876

SOLUTION

Aquifer Model: Unconfined

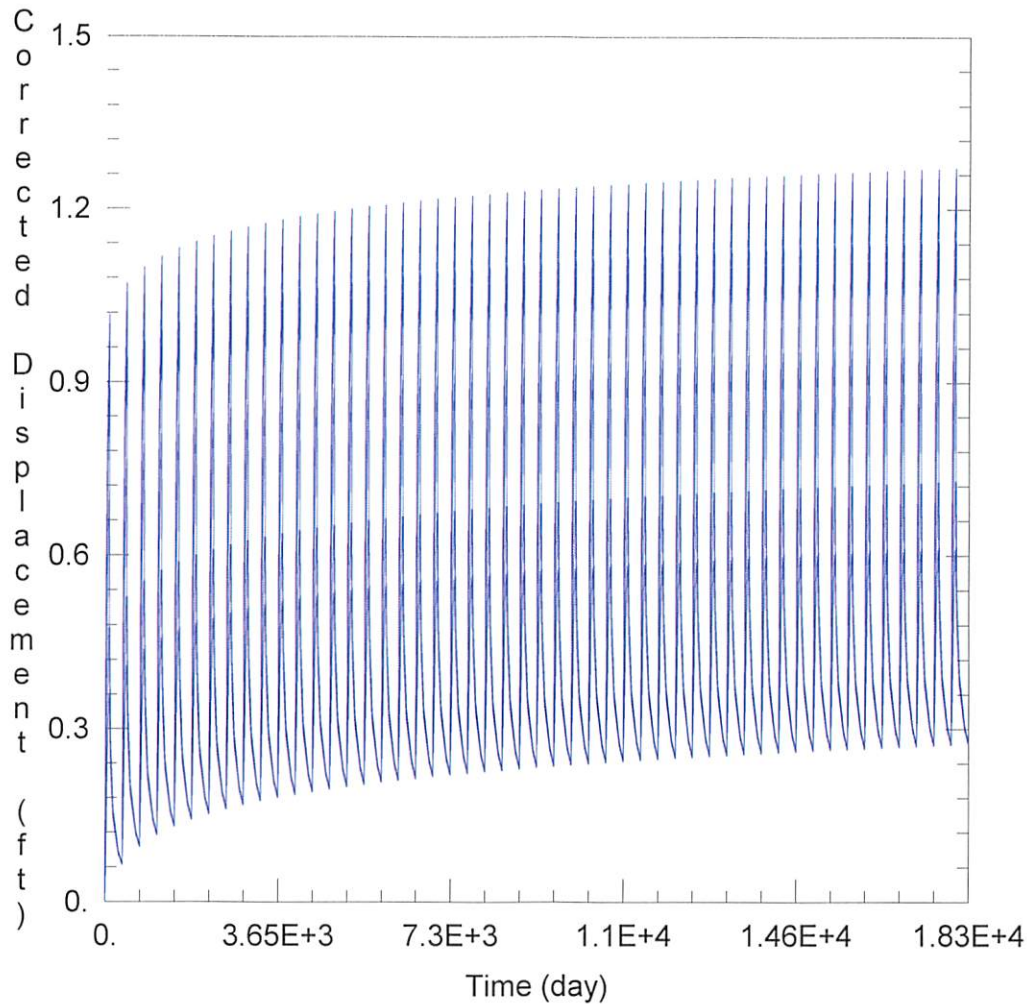
Solution Method: Theis

T = 5.175E+4 ft²/day

S = 0.063

Kz/Kr = 1.

b = 169.6 ft



WELL TEST ANALYSIS

Data Set: C:\Users\scanstation\Documents\move requests\19356\19356 proposed.aqt
 Date: 11/25/24 Time: 16:10:38

PROJECT INFORMATION

Test Well: 19356

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
19356	-57662	216899

Observation Wells

Well Name	X (ft)	Y (ft)
□	-57662	216899
□ 7422	-58782	218496
□ 4300	-57579	219276
□ 15545	-52543	218600
□ 3458	-60415	214854
□ 17630	-51833	213267
□ Domestic	-57422	218876

SOLUTION

Aquifer Model: Unconfined

Solution Method: Theis

T = 5.175E+4 ft²/day

S = 0.063

Kz/Kr = 1.

b = 233.9 ft