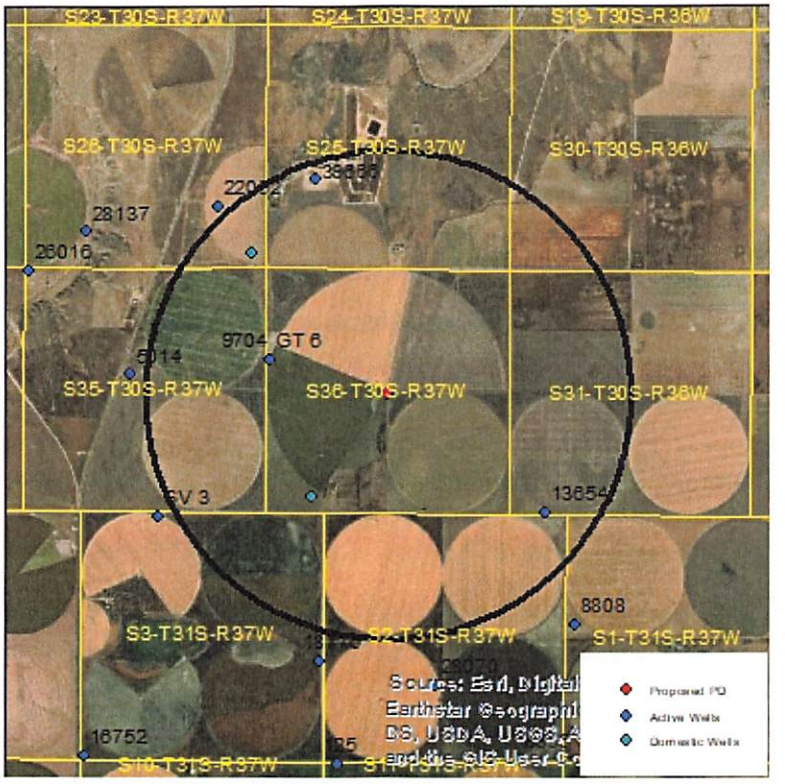
Evaluation of proposed move for Water Right Nos. GT 6 & 9704

Proposed: Move water right nos. GT 6 & 9704 a distance of 2,629 ft to the southeast.



Wells within 1 mile: 39666, 13654, a domestic well in section 26-30-37, and a domestic well in section 36-30-37.

The saturated thickness at the proposed well location is estimated to be 212 ft, based upon an observation well in section 32-30-36 and the driller's log. 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 = 0.1863, T = 5930.5 ft^2/day,

$tp_{current}$ = 196 days (based upon average use and observed rate), $Q_{current}$ = 507 gpm (based upon 2019 field inspection), $tp_{proposed}$ = 157 days, $Q_{proposed}$ = 1100 gpm

Theis drawdowns were calculated as follows:

39666: Drawdown from current location = 3.24 ft

Drawdown from proposed location = 5.07 ft

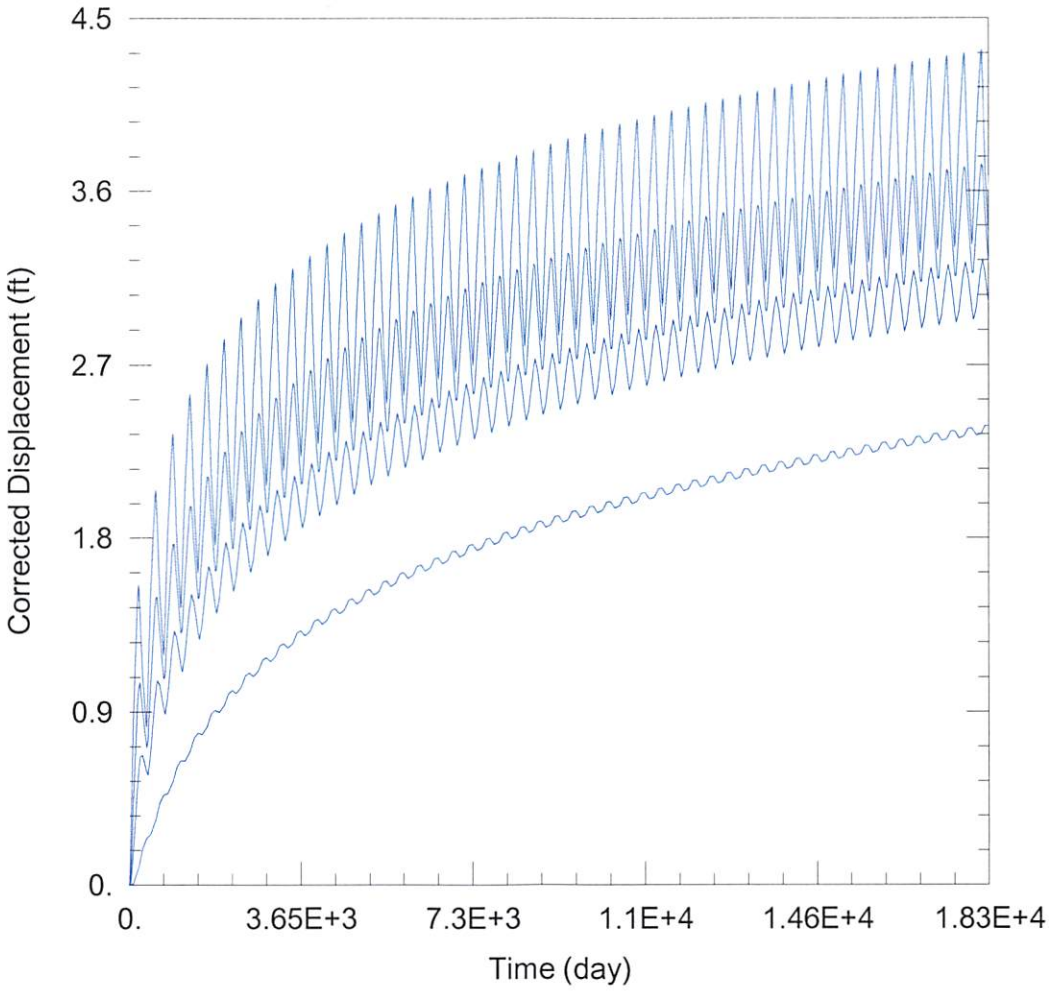
Net drawdown = **1.8 ft**

13654:	Drawdown from current location = 2.38 ft
	Drawdown from proposed location = 5.51 ft
	Net drawdown = **3.1 ft**
Domestic 26-30-37:	Drawdown from current location = 4.33 ft
	Drawdown from proposed location = 5.48 ft
	Net drawdown = **1.1 ft**
Domestic 36-30-37:	Drawdown from current location = 3.74 ft
	Drawdown from proposed location = 7.06 ft
	Net drawdown = **3.3 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\GT6_9704\GT6 & 9704 Current.aqt
Date: 03/12/21 Time: 15:05:49

PROJECT INFORMATION

Company: GMD 3
Project: GT 6 & 9704
Location: Grant County
Test Well: GT 6 & 9704

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
GT 6 & 9704	-152792	190546

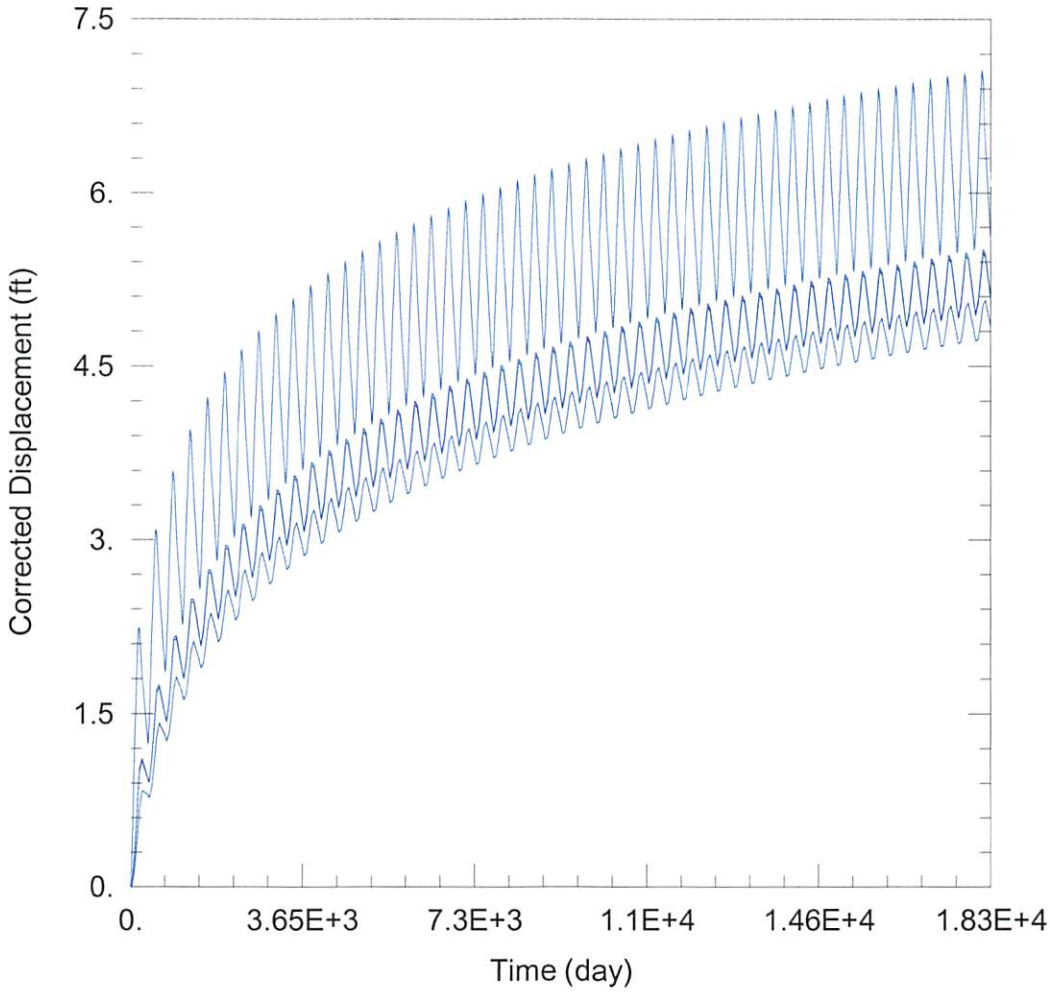
Observation Wells

Well Name	X (ft)	Y (ft)
▫	-152792	190546
▫ 39666	-151782	194440
▫ 13654	-146825	187261
▫ Domestic 26-30-37	-153208	192856
▫ Domestic 36-30-37	-151895	187589

SOLUTION

Aquifer Model: Unconfined
Solution Method: Theis

T = 5930.5 ft^2/day
S = 0.1863
Kz/Kr = 1.
b = 212. ft



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2021_Moves\GT6_9704\GT6 & 9704 Proposed.aqt
Date: 03/12/21 Time: 15:05:42

PROJECT INFORMATION

Company: GMD 3
Project: GT 6 & 9704
Location: Grant County
Test Well: GT 6 & 9704

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
GT 6 & 9704	-150219	189800

Observation Wells

Well Name	X (ft)	Y (ft)
▫	-150219	189800
▫ 39666	-151782	194440
▫ 13654	-146825	187261
▫ Domestic 26-30-37	-153208	192856
▫ Domestic 36-30-37	-151895	187589

SOLUTION

Aquifer Model: Unconfined
Solution Method: Theis

T = 5930.5 ft^2/day
S = 0.1863
Kz/Kr = 1.
b = 212. ft