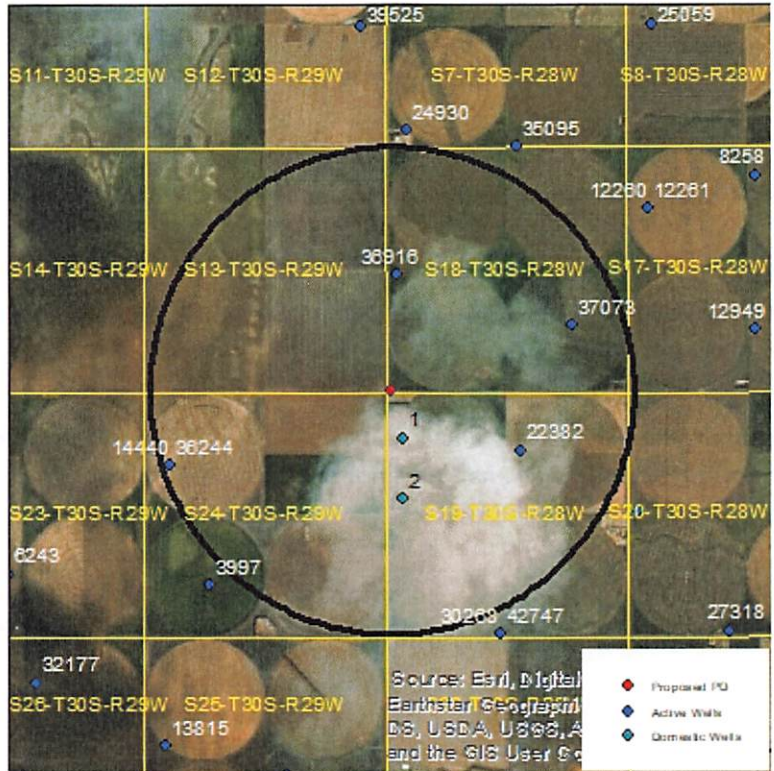**Evaluation of proposed move for Water Right No 36916**

Proposed: Move water right no. 36916 a distance of 2,504 ft to the south.

Wells within 1 mile: 37073, 22382, 14440 & 36244, and 2 domestic wells, numbered on the above map.

The saturated thickness at the proposed well location is estimated to be 249 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 = 0.2028, T = 19,010 ft^2/day, tp$_{current}$ = 126 days (based upon average use and observed rate), Q$_{current}$ = 670 gpm (based upon 2019 field inspection), tp$_{proposed}$ = 65 days, Q$_{proposed}$ = 1740 gpm

Theis drawdowns were calculated as follows:

37073:	Drawdown from current location = 1.23 ft
	Drawdown from proposed location = 1.67 ft
	Net drawdown = **0.4 ft**
22382:	Drawdown from current location = 1.11 ft
	Drawdown from proposed location = 2.14 ft
	Net drawdown = **1.0 ft**

| 14440 & 36244: | Drawdown from current location = 0.91 ft |
	Drawdown from proposed location = 1.46 ft
	Net drawdown = **0.5 ft**
Domestic 1:	Drawdown from current location = 1.32 ft
	Drawdown from proposed location = 4.61 ft
	Net drawdown = **3.3 ft**
Domestic 2:	Drawdown from current location = 1.08 ft
	Drawdown from proposed location = 2.61 ft
	Net drawdown = **1.5 ft**

Net drawdown does not exceed the drawdown allowance of 4.0 ft for any wells within 1 mile of the proposed location. Therefore, critical well analysis is not necessary.

Conclusion:

Based upon information from the GMD3 model, this proposal will cause minimal effects on neighboring wells, and is unlikely to create an impairment. GMD3 staff recommends approval of the application.
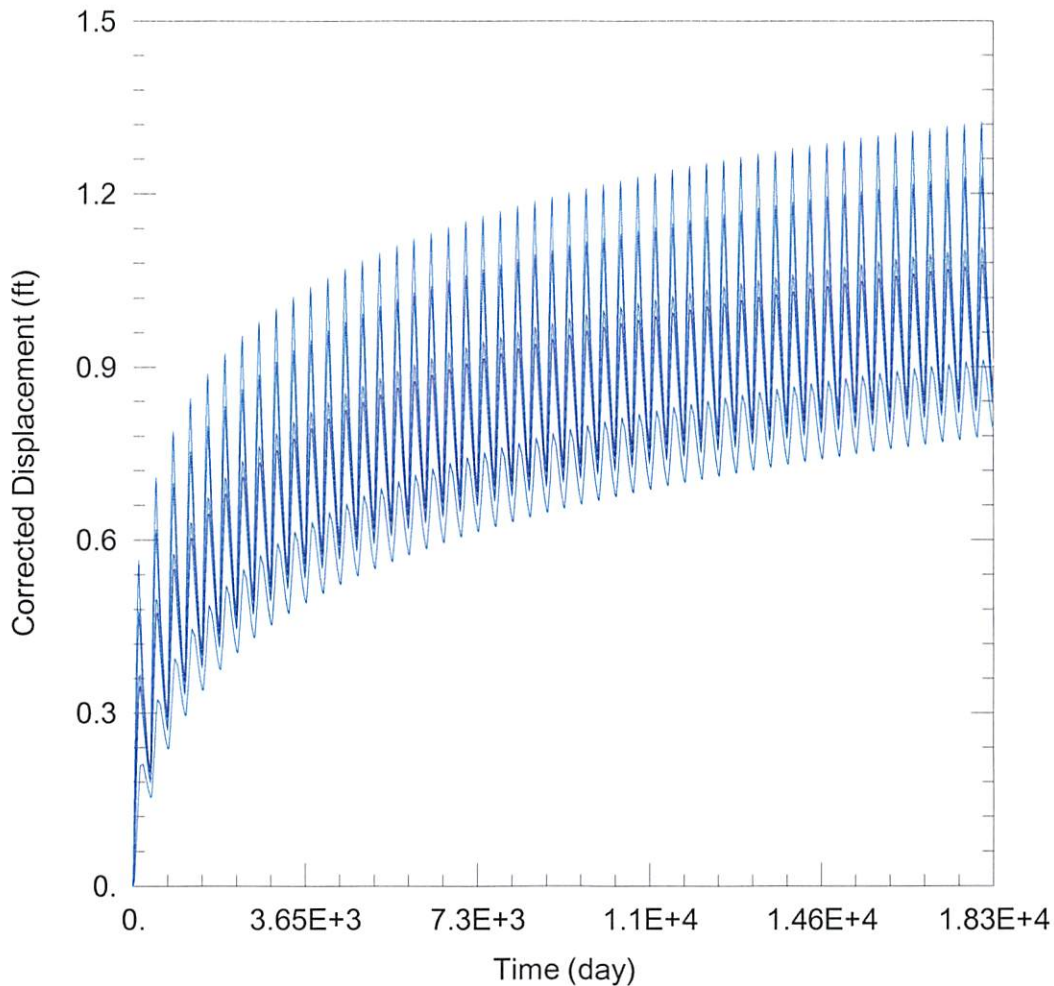
WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2020_moves\36916\36916 Current.aqt
Date: 10/12/20   Time: 14:53:13

PROJECT INFORMATION

Company: GMD 3
Project: 36916
Location: Meade County
Test Well: 36916

WELL DATA

Pumping Wells		
Well Name	X (ft)	Y (ft)
36916	106308	205171

Observation Wells		
Well Name	X (ft)	Y (ft)
▫	106308	205171
▫ 37073	110154	204083
▫ 22382	109035	201357
▫ 14440 & 36244	101388	201033
▫ Domestic 1	106455	201619
▫ Domestic 2	106454	200295

SOLUTION

Aquifer Model: Unconfined   Solution Method: Theis
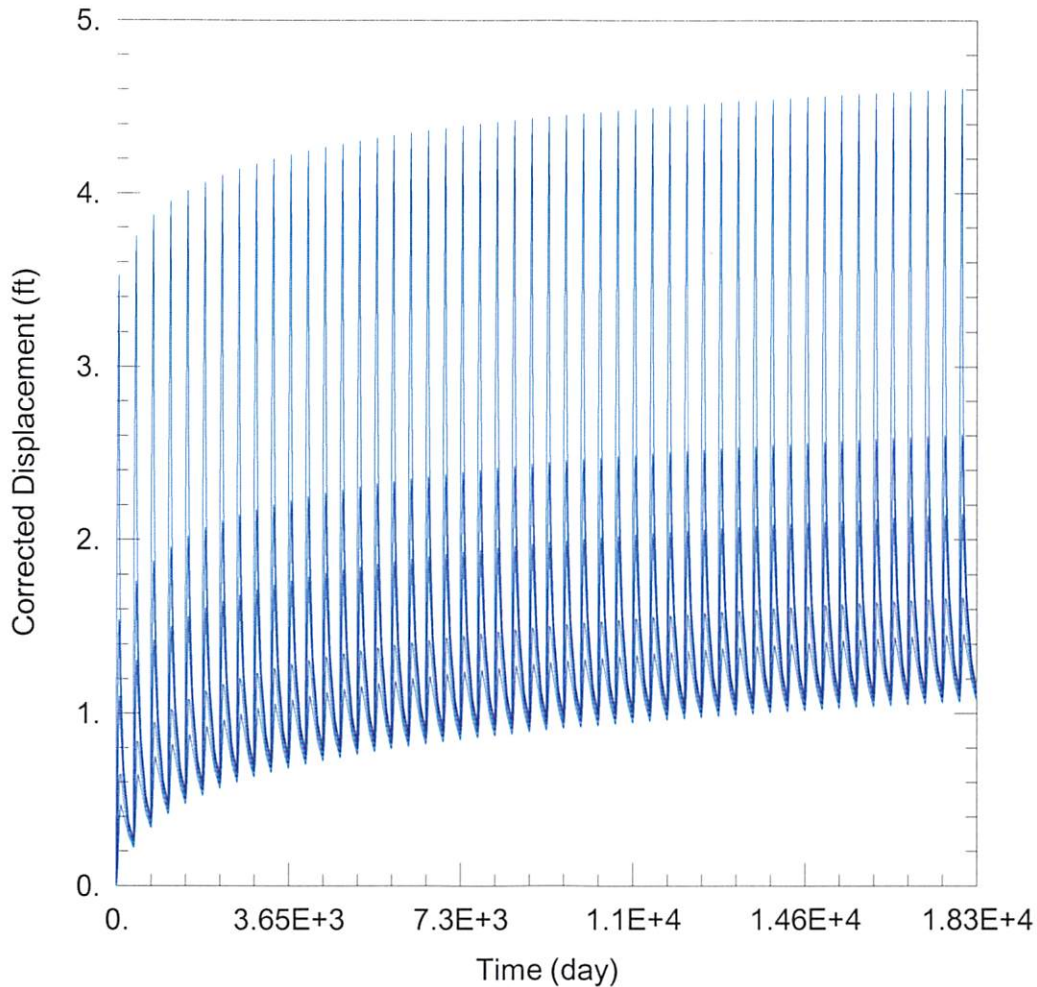
T   = 1.901E+4 ft^2/day   S   = 0.2028
Kz/Kr = 1.   b   = 249. ft

WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2020_moves\36916\36916 Proposed.aqt
Date: 10/12/20   Time: 14:53:06

PROJECT INFORMATION

Company: GMD 3
Project: 36916
Location: Meade County
Test Well: 36916

WELL DATA

Pumping Wells				Observation Wells		
Well Name	X (ft)	Y (ft)		Well Name	X (ft)	Y (ft)
36916	106214	202669		▫	106214	202669
				▫ 37073	110154	204083
				▫ 22382	109035	201357
				▫ 14440 & 36244	101388	201033
				▫ Domestic 1	106455	201619
				▫ Domestic 2	106454	200295

SOLUTION

Aquifer Model: Unconfined   Solution Method: Theis

T   = 1.901E+4 ft^2/day   S   = 0.2028
Kz/Kr = 1.   b   = 249. ft