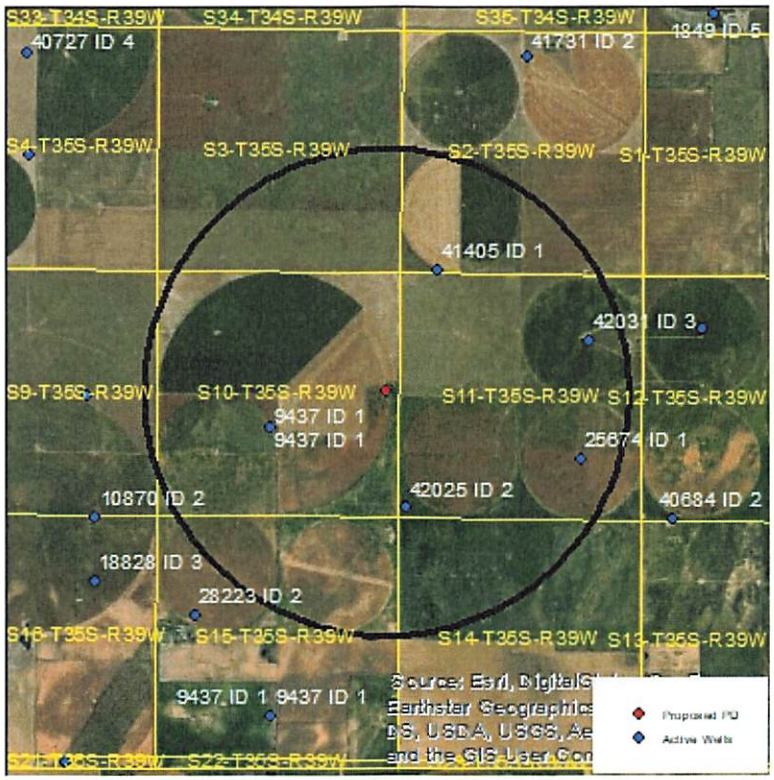
Evaluation of proposed move for Water Right No. 9437 DA

Proposed: Move water right no. 9437 DA to the well currently authorized under water right no. 42023. The authorization in this well will increase from a rate and quantity of 860 gpm and 500 AF to 973.2 gpm and 675.2 AF.



Wells within 1 mile: 41405, 42025, 25674, and 42031.

The saturated thickness at the proposed well location is estimated to be 204 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 = 0.1077, T = 4757.3 ft^2/day,

$tp_{current}$ = 111 days (assumed), $Q_{current}$ = 850 gpm (based on average use and assumed time pumped), $tp_{proposed}$ = 157 days, $Q_{proposed}$ = 973.2 gpm

Theis drawdowns were calculated as follows:

41405: Drawdown from current location = 5.40 ft

Drawdown from proposed location = 8.41 ft

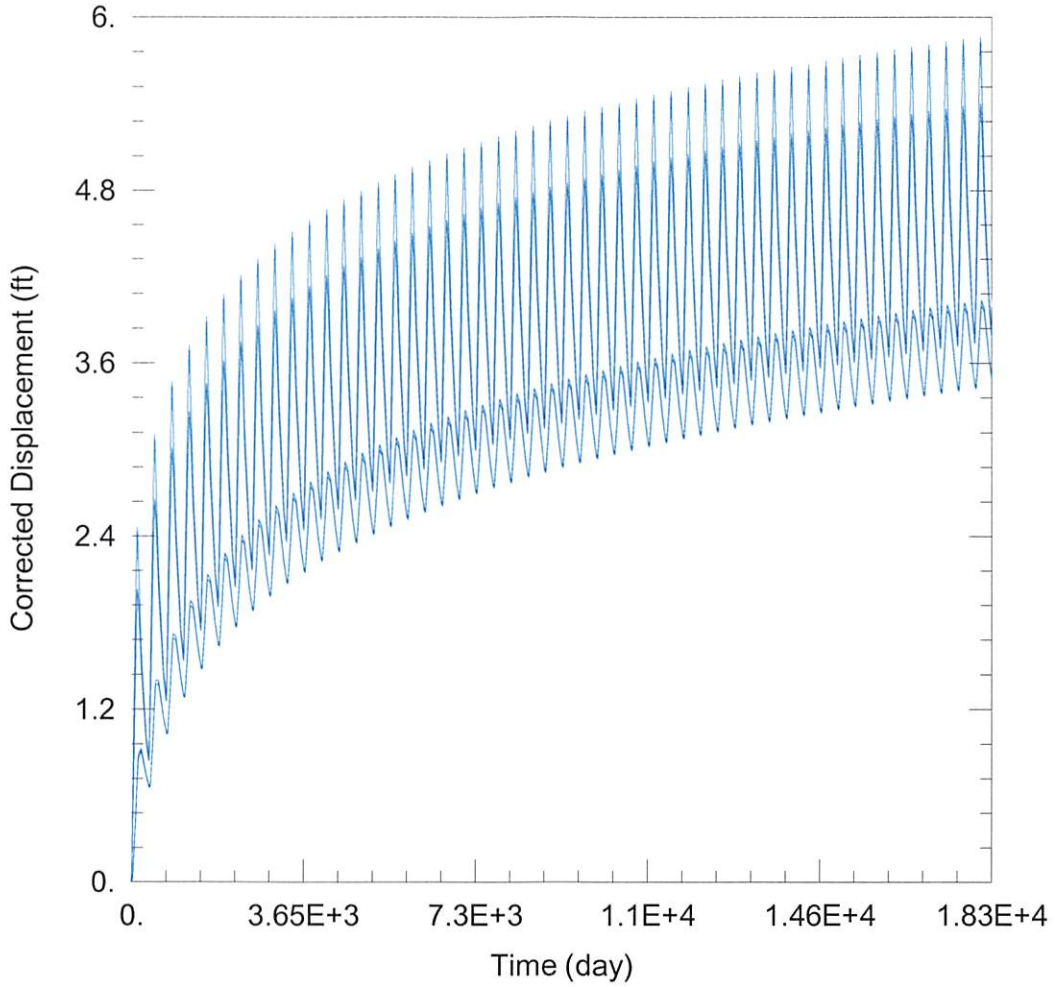
Net drawdown = **3.0 ft**

42025:	Drawdown from current location = 5.87 ft
	Drawdown from proposed location = 9.01 ft
	Net drawdown = **3.1 ft**
25674:	Drawdown from current location = 4.04 ft
	Drawdown from proposed location = 6.48 ft
	Net drawdown = **2.4 ft**
42031:	Drawdown from current location = 4.00 ft
	Drawdown from proposed location = 6.43 ft
	Net drawdown = **2.4 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\9437\9437 Current.aqt
Date: 11/17/21 Time: 16:17:57

PROJECT INFORMATION

Company: GMD 3
Project: 9437 DA
Location: Stevens County

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
42023	-215726	52847

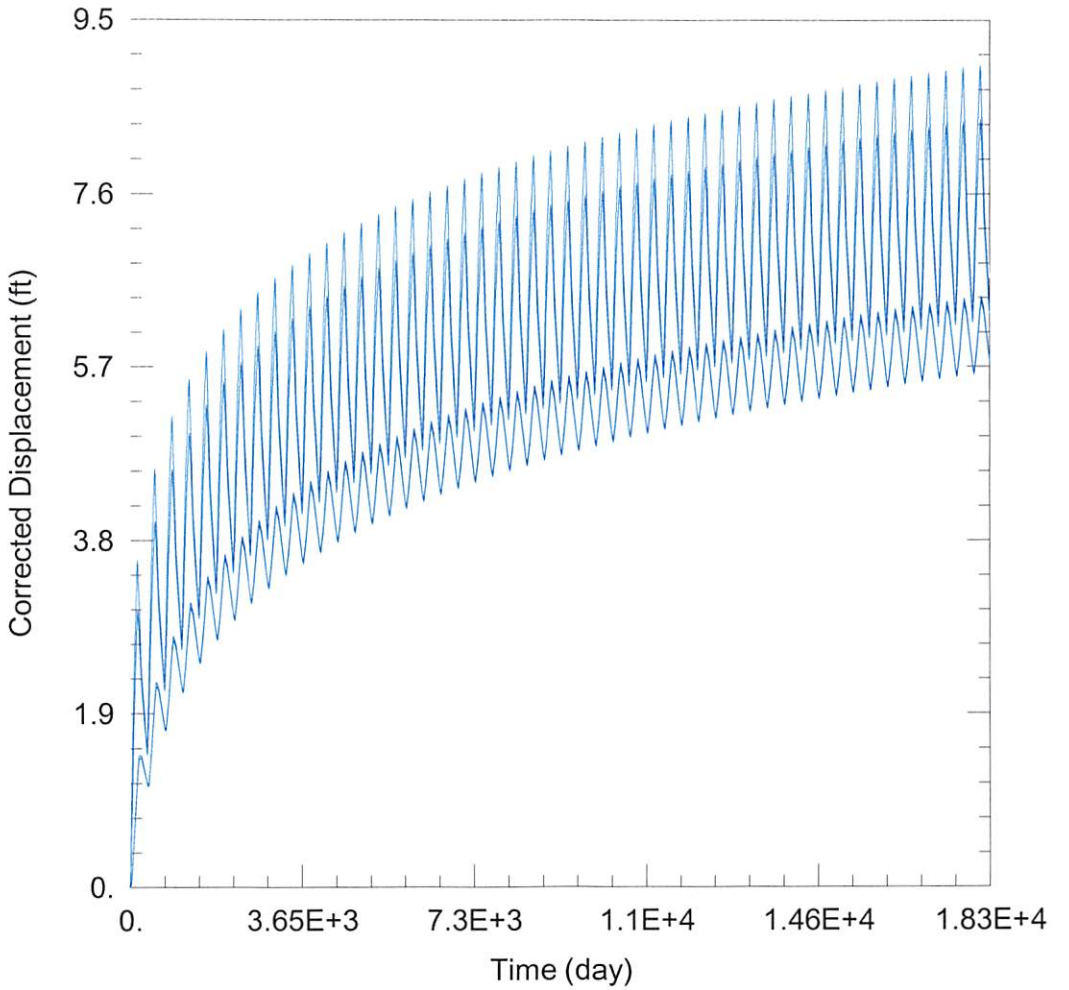
Observation Wells

Well Name	X (ft)	Y (ft)
▫	-215726	52847
▫ 41405	-214596	55488
▫ 42025	-215308	50335
▫ 25674	-211474	51393
▫ 42031	-211309	53955

SOLUTION

Aquifer Model: Unconfined
Solution Method: Theis

T = 4757.3 ft^2/day
S = 0.1077
Kz/Kr = 1.
b = 204. ft



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2021_Moves\9437\9437 Proposed.aqt
Date: 11/17/21 Time: 16:17:50

PROJECT INFORMATION

Company: GMD 3
Project: 9437 DA
Location: Stevens County

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
42023	-215726	52847

Observation Wells

Well Name	X (ft)	Y (ft)
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