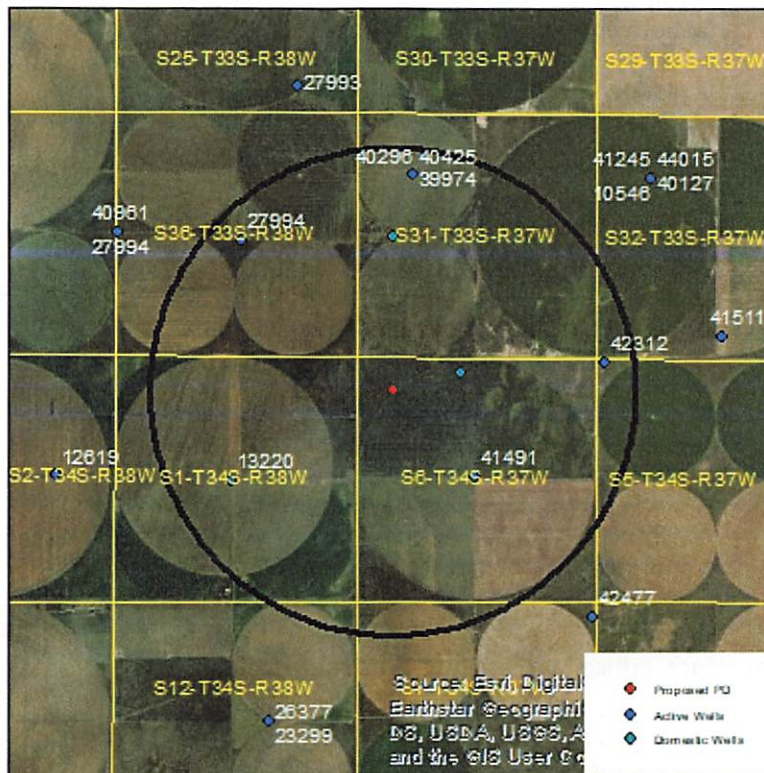


Evaluation of proposed move for Water Right No. 41491

Proposed: Move water right no. 41491 to a new well location, a distance of 2,581 ft to the northwest.



Wells within 1 mile: 27994, 39974 & 40296 & 40425, 13220, 42312, a domestic well in section 31-33-37, and a domestic well in section 6-34-37.

The saturated thickness at the proposed well location is estimated to be 336 ft, based upon the driller's log and an observation well in section 2-34-38. 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:

$S = 0.2905$, $T = 14,691 \text{ ft}^2/\text{day}$, $tp_{\text{current}} = 81 \text{ days}$, $Q_{\text{current}} = 1179 \text{ gpm}$, $tp_{\text{proposed}} = 90 \text{ days}$, $Q_{\text{proposed}} = 1555 \text{ gpm}$

Theis drawdowns were calculated as follows:

27994: Drawdown from current location = 1.03 ft
 Drawdown from proposed location = 1.99 ft
 Net drawdown = **1.0 ft**

39974 & 40296 & 40425: Drawdown from current location = 1.08 ft
 Drawdown from proposed location = 1.97 ft
 Net drawdown = **0.9 ft**

13220: Drawdown from current location = 1.25 ft
Drawdown from proposed location = 2.21 ft
Net drawdown = **1.0 ft**

42312: Drawdown from current location = 1.58 ft
Drawdown from proposed location = 1.99 ft
Net drawdown = **0.4 ft**

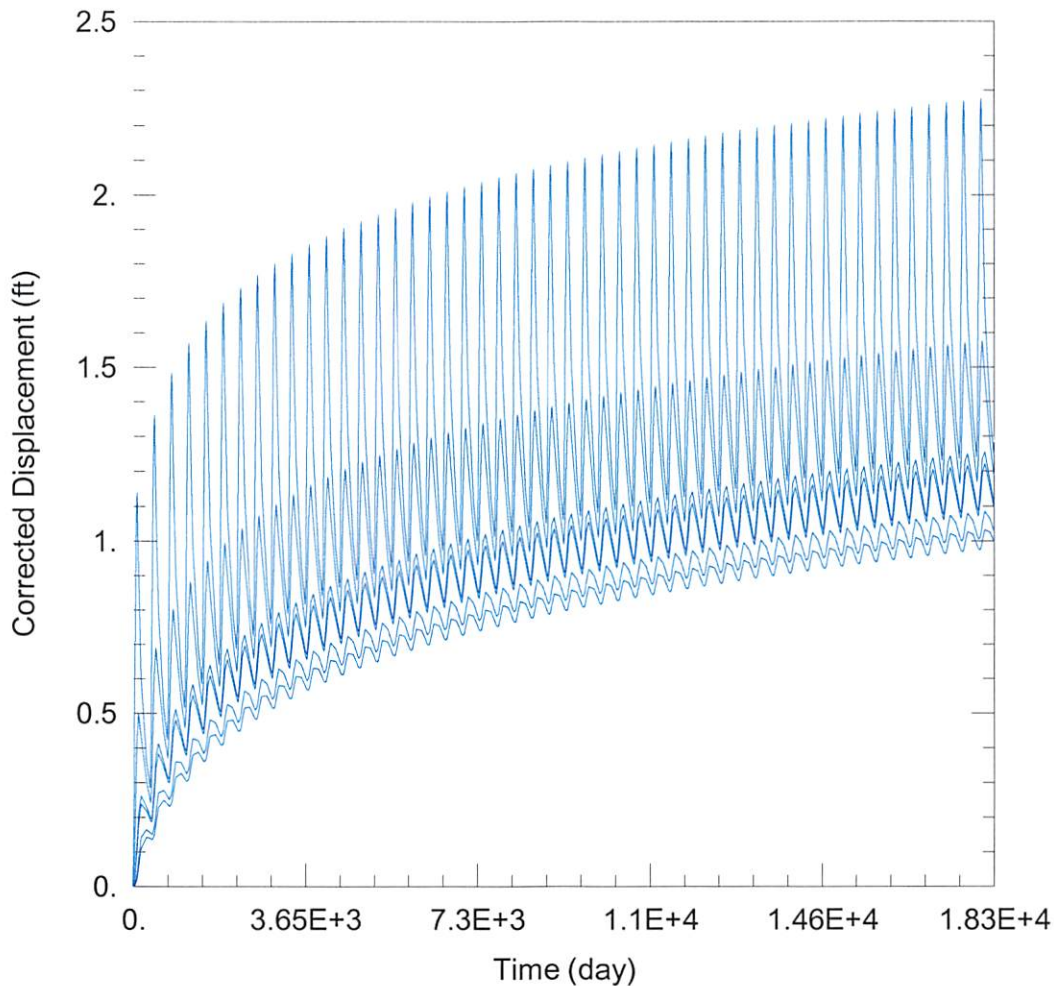
Domestic 31-33-37: Drawdown from current location = 1.22 ft
Drawdown from proposed location = 2.46 ft
Net drawdown = **1.2 ft**

Domestic 6-34-37: Drawdown from current location = 2.28 ft
Drawdown from proposed location = 4.27 ft
Net drawdown = **2.0 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\trevora\Documents\2022_moves\41491\41491 Current.aqt

Date: 05/17/22

Time: 15:18:23

PROJECT INFORMATION

Company: GMD 3

Project: 41491

Location: Stevens County

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
41491	-170474	89520

Observation Wells

Well Name	X (ft)	Y (ft)
□	-170474	89520
□ 27994	-175544	94642
□ 39974 & 40296 & 40425	-171803	96071
□ 13220	-175752	89448
□ 42312	-167659	92011
□ Domestic 31-33-37	-172264	94750
□ Domestic 6-34-37	-170769	91773

SOLUTION

Aquifer Model: Unconfined

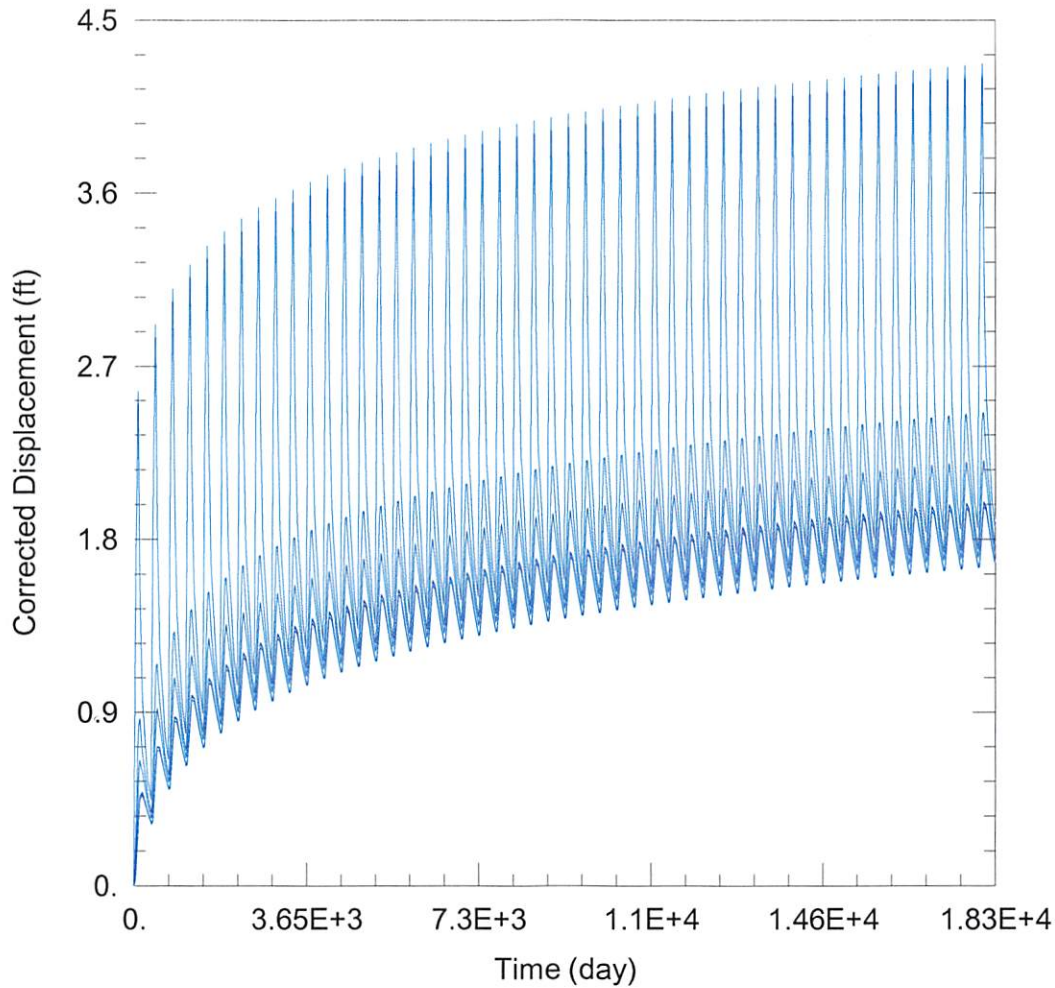
Solution Method: Theis

T = 1.469E+4 ft²/day

S = 0.2905

Kz/Kr = 1.

b = 336. ft



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2022_moves\41491\41491 Proposed.aqt

Date: 05/17/22

Time: 15:18:16

PROJECT INFORMATION

Company: GMD 3

Project: 41491

Location: Stevens County

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
41491	-172260	91383

Observation Wells

Well Name	X (ft)	Y (ft)
□	-172260	91383
□ <u>27994</u>	-175544	94642
□ <u>39974 & 40296 & 40425</u>	-171803	96071
□ <u>13220</u>	-175752	89448
□ <u>42312</u>	-167659	92011
□ <u>Domestic 31-33-37</u>	-172264	94750
□ <u>Domestic 6-34-37</u>	-170769	91773

SOLUTION

Aquifer Model: Unconfined

Solution Method: Theis

T = 1.469E+4 ft²/day

S = 0.2905

Kz/Kr = 1.

b = 336. ft