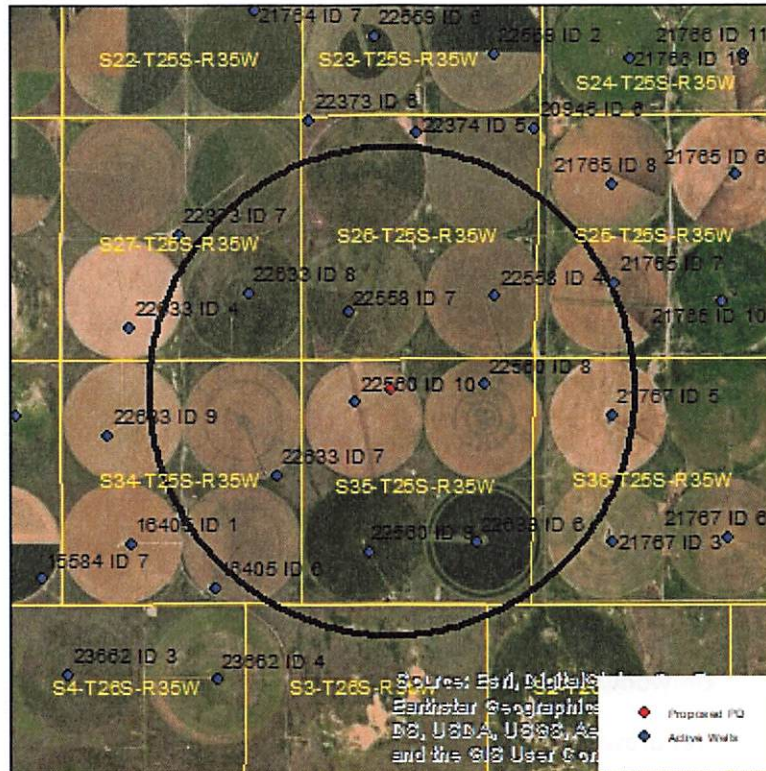


## Evaluation of proposed move for Water Right No 22560 D2

Proposed: Move water right no. 22560 D2 ID 10 a distance of 829 ft to the northeast.



Wells within 1 mile: 22560 D2 ID9, 22560 D1 ID8, 22639, 22633 ID7, 22633 ID8, 22558 ID4, 22558 ID7, and 21767.

The saturated thickness at the proposed well location is estimated to be 256 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:

$S = 0.1229$ ,  $T = 9,278 \text{ ft}^2/\text{day}$ ,  $t_{\text{current}} = 274 \text{ days}$  (based upon average use and observed rate),  
 $Q_{\text{current}} = 109 \text{ gpm}$  (based upon 2018 field inspection),  $t_{\text{proposed}} = 70 \text{ days}$ ,  $Q_{\text{proposed}} = 875 \text{ gpm}$

Theis drawdowns were calculated as follows:

22560 D2 ID9:	Drawdown from current location = 0.82 ft
	Drawdown from proposed location = 1.95 ft
	Net drawdown = <b>1.1 ft</b>
22560 D1 ID8:	Drawdown from current location = 0.87ft
	Drawdown from proposed location = 3.00 ft
	Net drawdown = <b>2.1 ft</b>

22639: Drawdown from current location = 0.75 ft  
Drawdown from proposed location = 1.84 ft  
Net drawdown = **1.1 ft**

22633 ID7: Drawdown from current location = 0.93 ft  
Drawdown from proposed location = 2.17 ft  
Net drawdown = **1.2 ft**

22633 ID8: Drawdown from current location = 0.81 ft  
Drawdown from proposed location = 1.85 ft  
Net drawdown = **1.0 ft**

22558 ID4: Drawdown from current location = 0.77 ft  
Drawdown from proposed location = 2.21 ft  
Net drawdown = **1.4 ft**

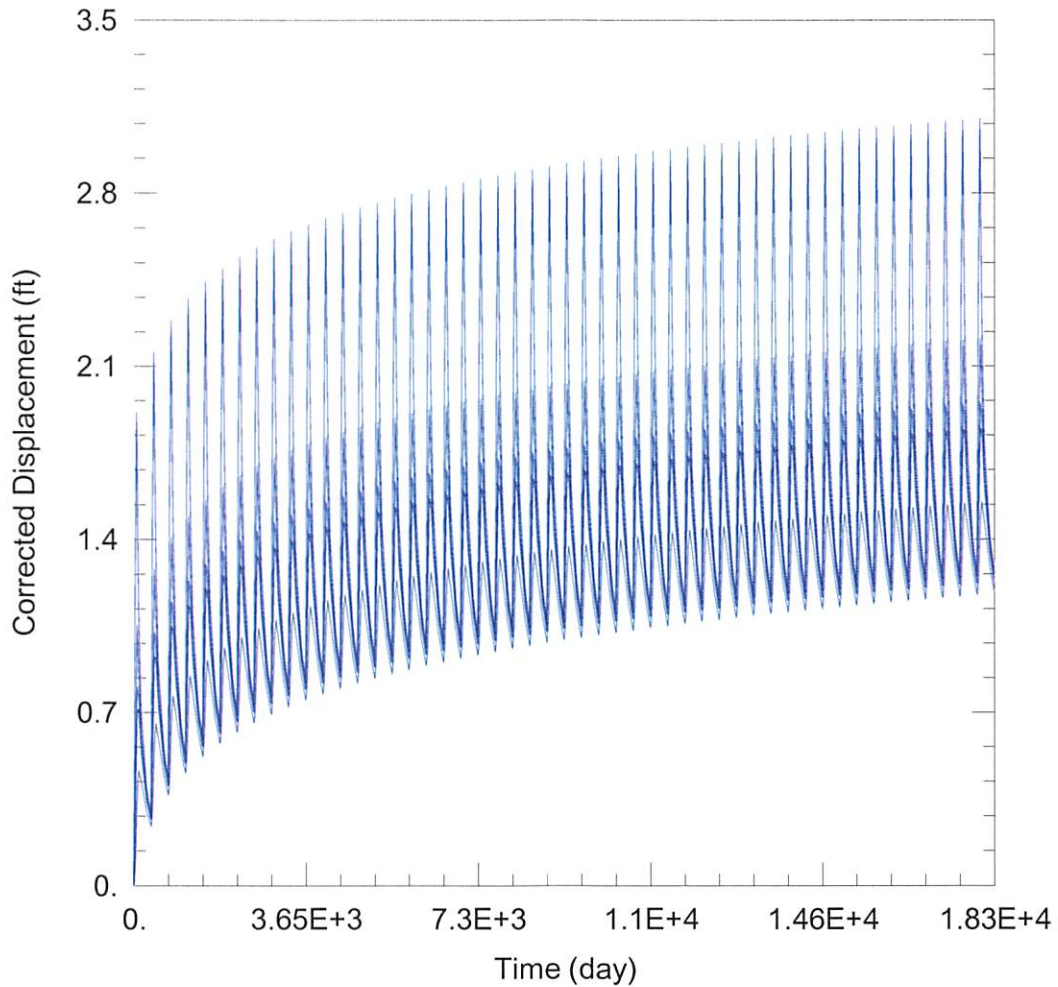
22558 ID7: Drawdown from current location = 0.99 ft  
Drawdown from proposed location = 3.10 ft  
Net drawdown = **2.1 ft**

21767: Drawdown from current location = 0.64 ft  
Drawdown from proposed location = 1.55 ft  
Net drawdown = **0.9 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\22560\_D2\Oct\_2020\22560 Proposed.aqt

Date: 10/19/20

Time: 14:15:04

### PROJECT INFORMATION

Company: GMD 3

Project: 22560 D2

Location: Kearny County

Test Well: 22560 D2

### WELL DATA

#### Pumping Wells

Well Name	X (ft)	Y (ft)
22560 D2 ID10	-96503	352080

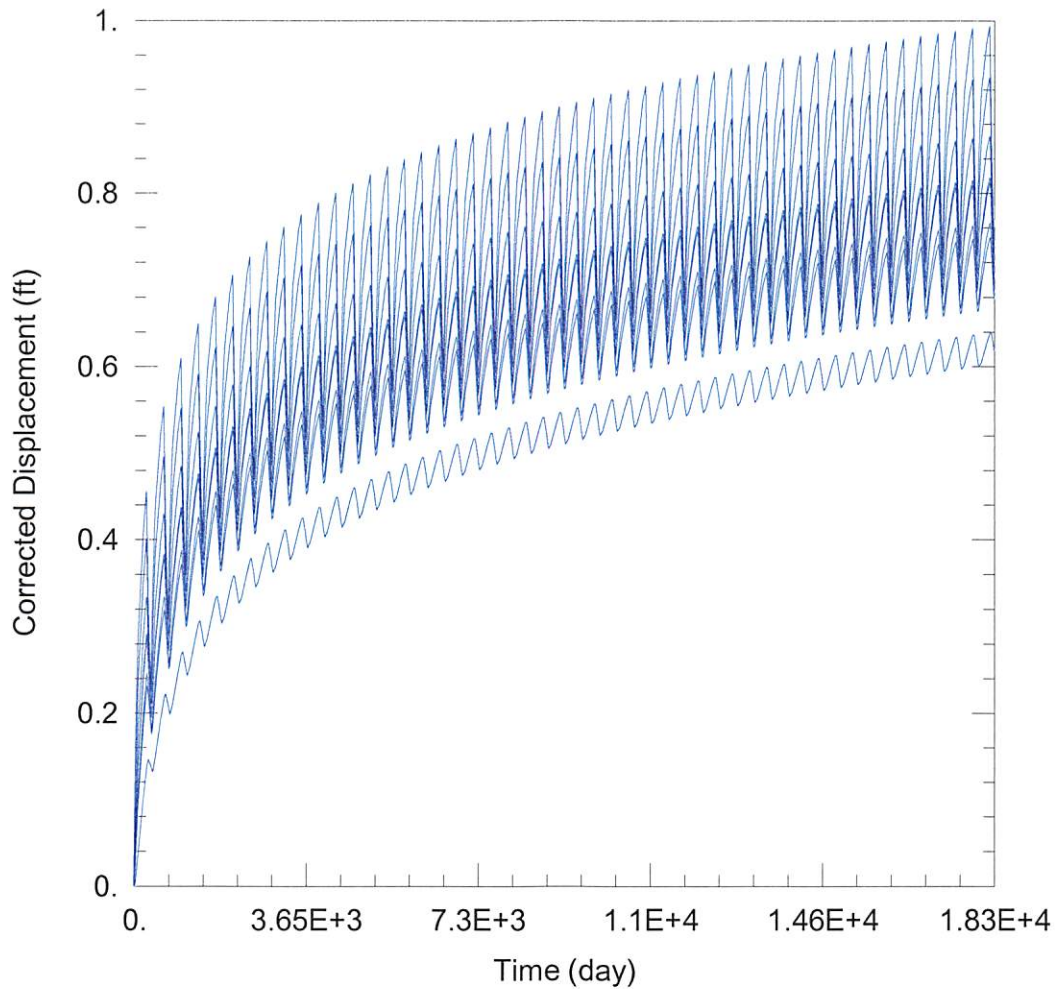
#### Observation Wells

Well Name	X (ft)	Y (ft)
□	-96503	352080
□ 22560 D2 ID9	-96978	348576
□ 22560 D1 ID8	-94489	352207
□ 22639	-94676	348784
□ 22633 ID7	-99008	350250
□ 22633 ID8	-99606	354190
□ 22558 ID4	-94253	354121
□ 22558 ID7	-97427	353780
□ 21767	-91694	351548

### SOLUTION

Aquifer Model: Unconfined

Solution Method: Theis



### WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2020\_moves\22560\_D2\Oct\_2020\22560 Current.aqt  
 Date: 10/19/20 Time: 14:15:10

### PROJECT INFORMATION

Company: GMD 3  
 Project: 22560 D2  
 Location: Kearny County  
 Test Well: 22560 D2

### WELL DATA

#### Pumping Wells

Well Name	X (ft)	Y (ft)
22560 D2 ID10	-97290	351818

#### Observation Wells

Well Name	X (ft)	Y (ft)
□	-97290	351818
□ <u>22560 D2 ID9</u>	-96978	348576
□ <u>22560 D1 ID8</u>	-94489	352207
□ <u>22639</u>	-94676	348784
□ <u>22633 ID7</u>	-99008	350250
□ <u>22633 ID8</u>	-99606	354190
□ <u>22558 ID4</u>	-94253	354121
□ <u>22558 ID7</u>	-97427	353780
□ <u>21767</u>	-91694	351548

### SOLUTION

Aquifer Model: Unconfined

Solution Method: Thisis

0.0  
0.5  
1.0

0.0450

0.0450

0.0450

0.0450

0.0450

0.0450

0.0450

0.0450

0.0450

0.0450