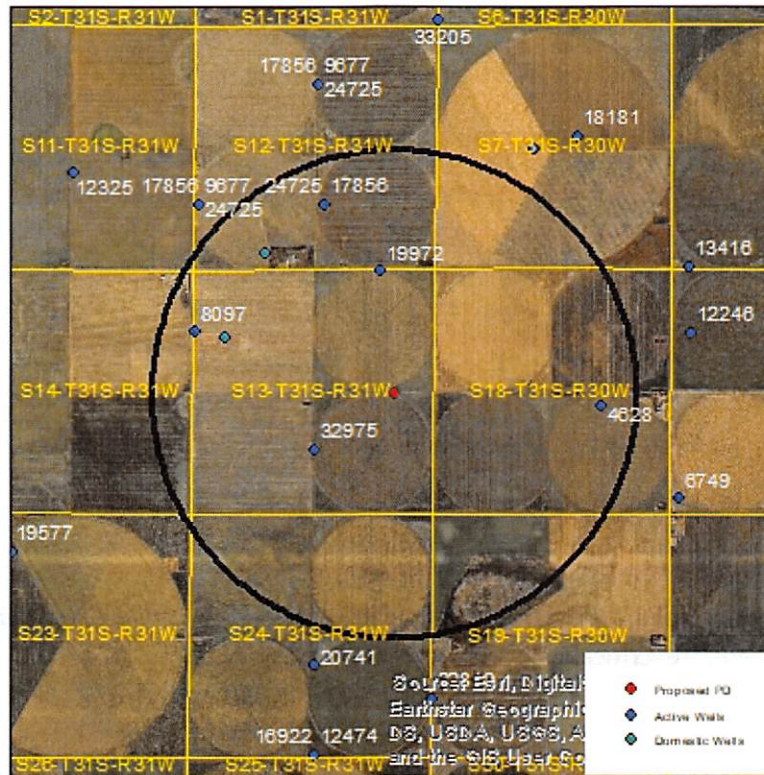


Evaluation of proposed move for Water Right No 32975

Proposed: Move water right no. 32975 a distance of 2110 ft to the northeast.



Wells within 1 mile: 8097, 19972, 17856 & 24725, 4628, a domestic well in section 12-31-31, and a domestic well in section 13-31-31.

The saturated thickness at the proposed well location is estimated to be 162 ft, based upon the GMD3 model. For saturated thickness between 150 and 200 ft, the drawdown allowance is 3.5 ft.

50 year Theis Analysis: The following values were used to run the analysis:

$S = 0.1069$, $T = 3639.7 \text{ ft}^2/\text{day}$, $tp_{\text{current}} = 123 \text{ days}$ (based upon average use and observed rate), $Q_{\text{current}} = 367 \text{ gpm}$ (based upon 2016 field inspection), $tp_{\text{proposed}} = 42 \text{ days}$, $Q_{\text{proposed}} = 1460 \text{ gpm}$

Theis drawdowns were calculated as follows:

- 8097:
- Drawdown from current location = 2.66 ft
 - Drawdown from proposed location = 3.19 ft
 - Net drawdown = **0.5 ft**
- 19972:
- Drawdown from current location = 2.46 ft
 - Drawdown from proposed location = 4.66 ft
 - Net drawdown = **2.2 ft**

17856 & 24725: Drawdown from current location = 2.11 ft
Drawdown from proposed location = 3.27 ft
Net drawdown = **1.2 ft**

4628: Drawdown from current location = 1.89 ft
Drawdown from proposed location = 3.18 ft
Net drawdown = **1.3 ft**

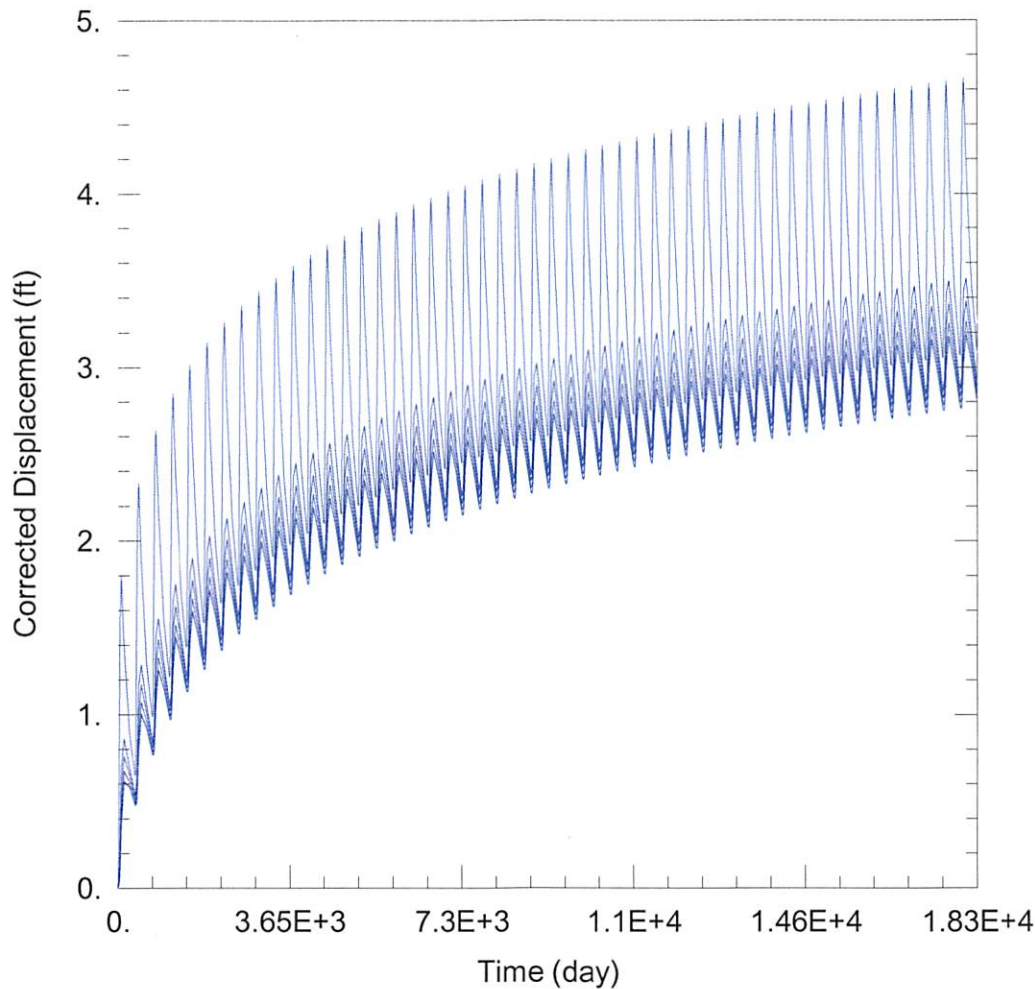
Domestic 12-31-31: Drawdown from current location = 2.35ft
Drawdown from proposed location = 3.38 ft
Net drawdown = **1.0 ft**

Domestic 13-31-31: Drawdown from current location = 2.92 ft
Drawdown from proposed location = 3.51 ft
Net drawdown = **0.6 ft**

Net drawdown does not exceed the drawdown allowance of 3.5 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 impairment. GMD3 staff recommends approval of the application.



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2020_moves\32975\32975 Proposed.aqt

Date: 03/05/20

Time: 14:32:19

PROJECT INFORMATION

Company: GMD 3

Project: 32975

Location: Seward County

Test Well: 32975

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
32975	47098	173423

Observation Wells

Well Name	X (ft)	Y (ft)
□	47098	173423
□ 8097	42776	174741
□ 19972	46791	176044
□ 17856 & 24725	45574	177501
□ 4628	51620	173138
□ Domestic 12-31-31	44307	176452
□ Domestic 13-31-31	43423	174609

SOLUTION

Aquifer Model: Unconfined

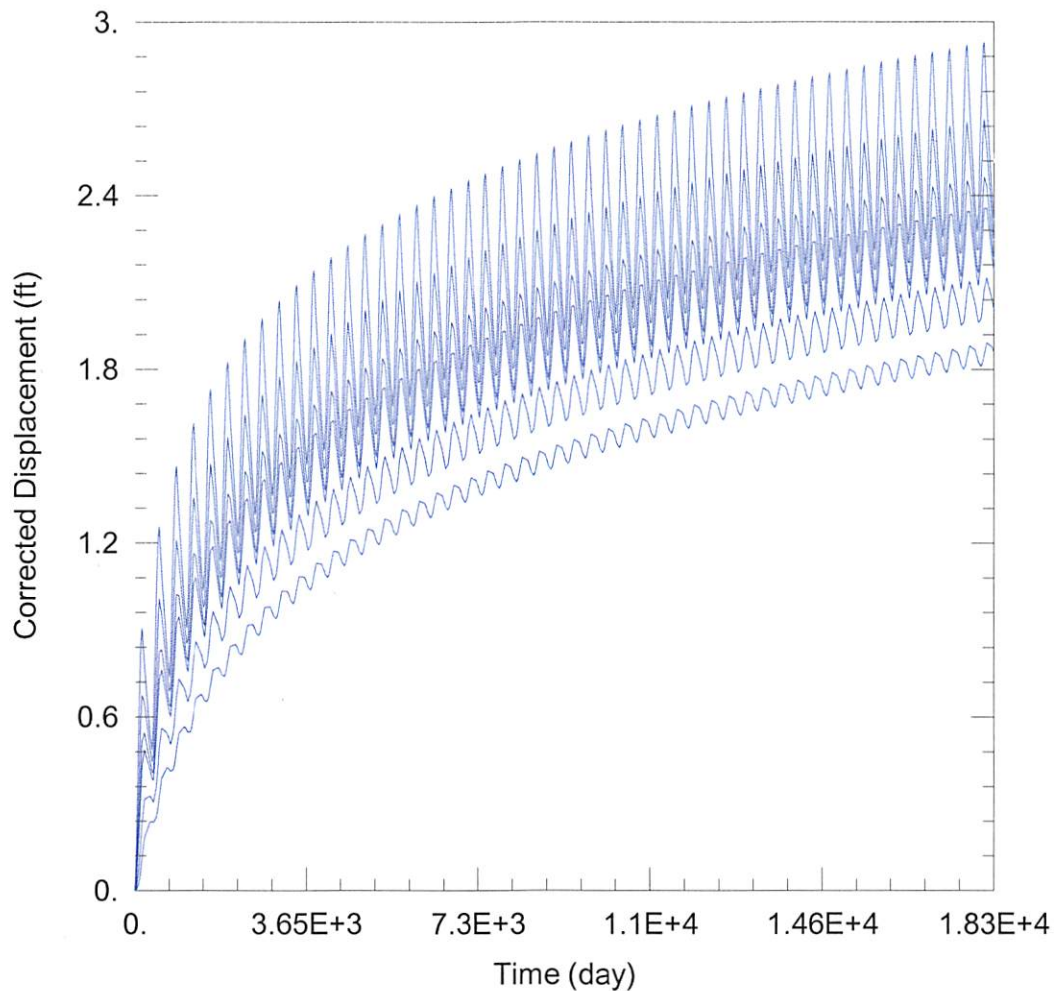
Solution Method: Theis

T = 3639.7 ft²/day

S = 0.1069

Kz/Kr = 1.

b = 162. ft



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2020_moves\32975\32975 Current.aqt

Date: 03/05/20

Time: 14:32:27

PROJECT INFORMATION

Company: GMD 3

Project: 32975

Location: Seward County

Test Well: 32975

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
32975	45370	172211

Observation Wells

Well Name	X (ft)	Y (ft)
□	45370	172211
□ 8097	42776	174741
□ 19972	46791	176044
□ 17856 & 24725	45574	177501
□ 4628	51620	173138
□ Domestic 12-31-31	44307	176452
□ Domestic 13-31-31	43423	174609

SOLUTION

Aquifer Model: Unconfined

Solution Method: Theis

T = 3639.7 ft²/day

S = 0.1069

Kz/Kr = 1.

b = 162. ft