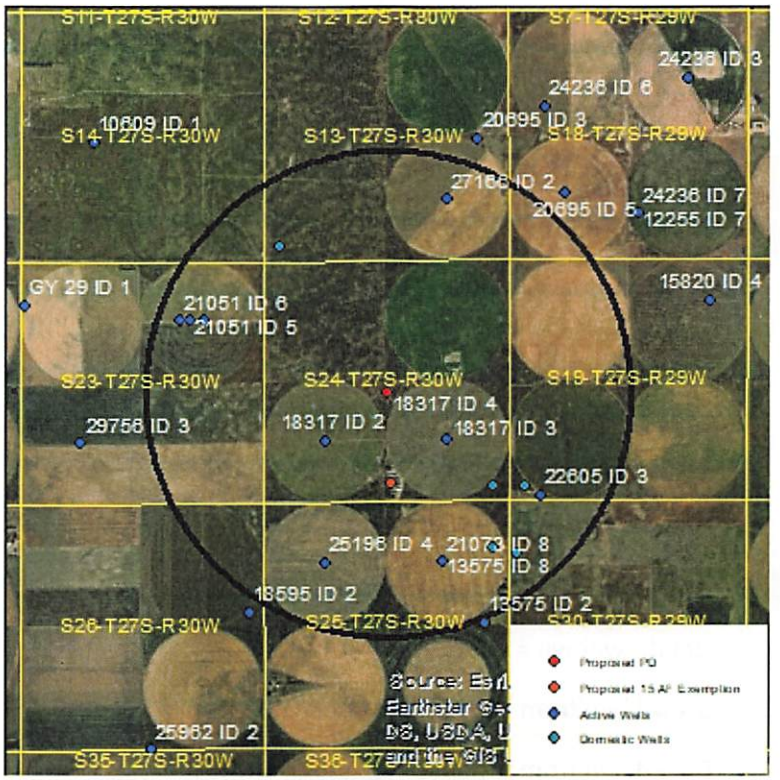
Evaluation of proposed move for Water Right No. 18317

Proposed: Move water right no. 18317 ID3 to the well location currently authorized under water right no. 18317 ID4. Create a new 15 AF water right in section 24-27-30, 400 ft north and 2530 ft west of the southeast corner. Pumping authority on this well to be authorized under water right nos. 18317 ID3 and 18317 ID4 will increase from 272 AF at 945 gpm to 544 AF at 1,875 gpm. The proposed change does not meet GMD3 spacing rules to 18317 ID2 or the proposed location for the 15 AF exemption.



Wells within 1 mile: 27166, 21051, 18317 ID2, 22605, 25196, 13575 & 21073, a domestic well in section 13-27-30, a domestic well in section 24-27-30, a domestic well in section 19-27-29, a domestic well in section 25-27-30, and a domestic well in section 30-27-29.

The saturated thickness at the proposed well location is estimated to be 47 ft, based on the driller's log and an observation well in section 23-27-30. For saturated thickness less than 50 ft, the drawdown allowance is 1.0 ft.

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

S = 0.1705, T = 14,741 ft^2/day

18317 ID3: $tp_{current}$ = 120 days (assumed), $Q_{current}$ = 371 gpm (based on average use and assumed 120 days pumping), $tp_{proposed}$ = 0 days, $Q_{proposed}$ = 0 gpm

18317 ID4: $tp_{current}$ = 74 days (based on average use and observed rate), $Q_{current}$ = 603 gpm (based on 2016 field inspection), $tp_{proposed}$ = 204 days, $Q_{proposed}$ = 603 gpm

15 AF exemption: $tp_{proposed}$ = 34 days, $Q_{proposed}$ = 100 gpm

Theis drawdowns were calculated as follows:

27166:	Drawdown from current location = 1.45 ft
	Drawdown from proposed location = 1.99 ft
	Net drawdown = **0.5 ft**
21051:	Drawdown from current location = 1.36 ft
	Drawdown from proposed location = 1.95 ft
	Net drawdown = **0.6 ft**
18317 ID2:	Drawdown from current location = 2.44 ft
	Drawdown from proposed location = 3.09 ft
	Net drawdown = **0.6 ft**
22605:	Drawdown from current location = 1.98 ft
	Drawdown from proposed location = 2.11 ft
	Net drawdown = **0.1 ft**
25196:	Drawdown from current location = 1.67 ft
	Drawdown from proposed location = 2.13 ft
	Net drawdown = **0.5 ft**
13575 & 21073:	Drawdown from current location = 1.90 ft
	Drawdown from proposed location = 2.15 ft
	Net drawdown = **0.3 ft**
Domestic 13-27-30:	Drawdown from current location = 1.47 ft
	Drawdown from proposed location = 2.10 ft
	Net drawdown = **0.6 ft**
Domestic 24-27-30:	Drawdown from current location = 2.44 ft
	Drawdown from proposed location = 2.41 ft
	Net drawdown = **0.0 ft**
Domestic 19-27-29:	Drawdown from current location = 2.15 ft
	Drawdown from proposed location = 2.23 ft
	Net drawdown = **0.1 ft**

Domestic 25-27-30: Drawdown from current location = 1.91 ft

Drawdown from proposed location = 2.10 ft

Net drawdown = **0.2 ft**

Domestic 30-27-29: Drawdown from current location = 1.78 ft

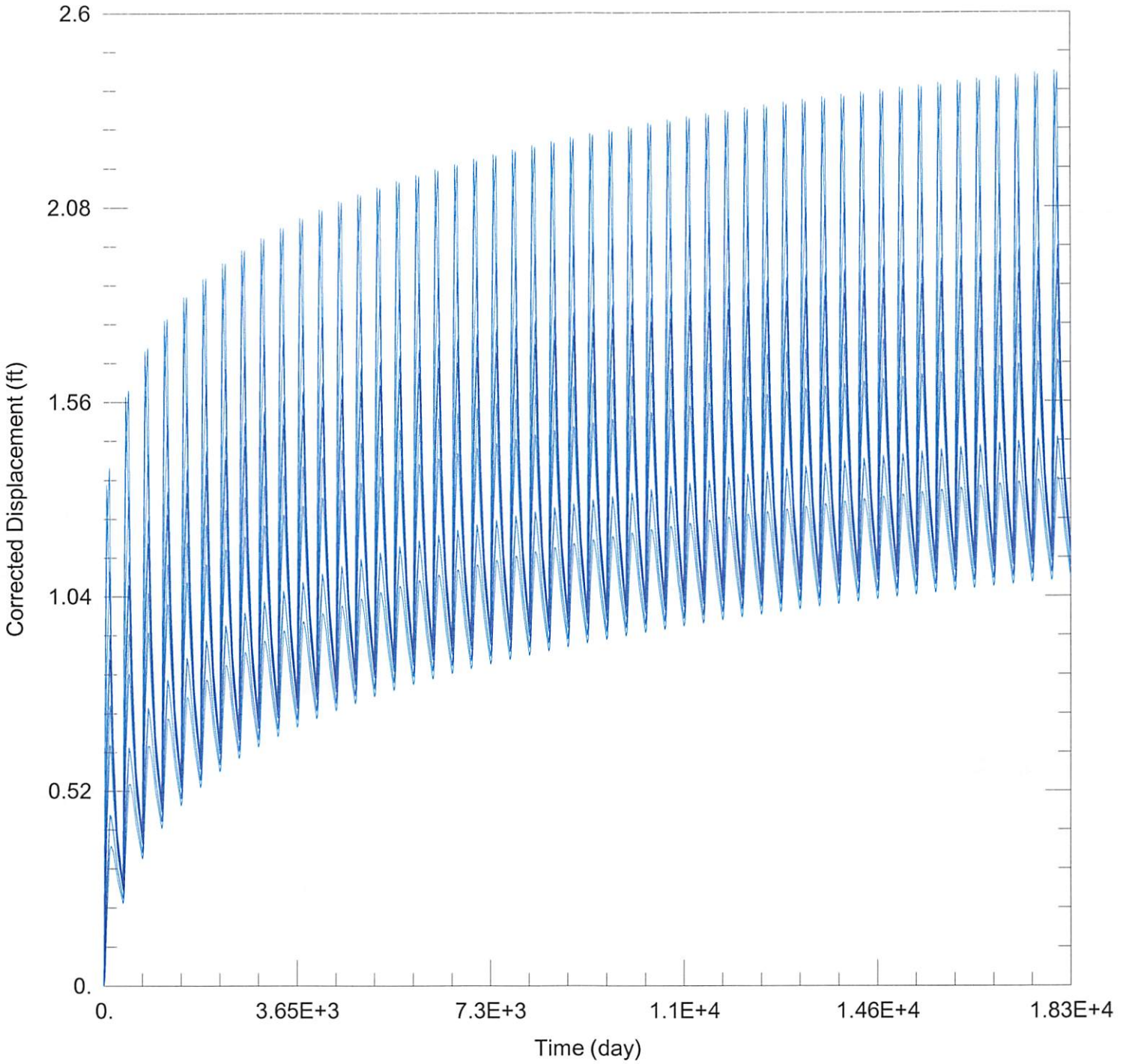
Drawdown from proposed location = 1.99 ft

Net drawdown = **0.2 ft**

Net drawdown does not exceed the drawdown allowance of 1.0 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\2023_moves\18317\18317 Current.aqt
Date: 04/03/23 Time: 16:41:31

PROJECT INFORMATION

Company: GMD 3
Project: 18317
Location: Gray County

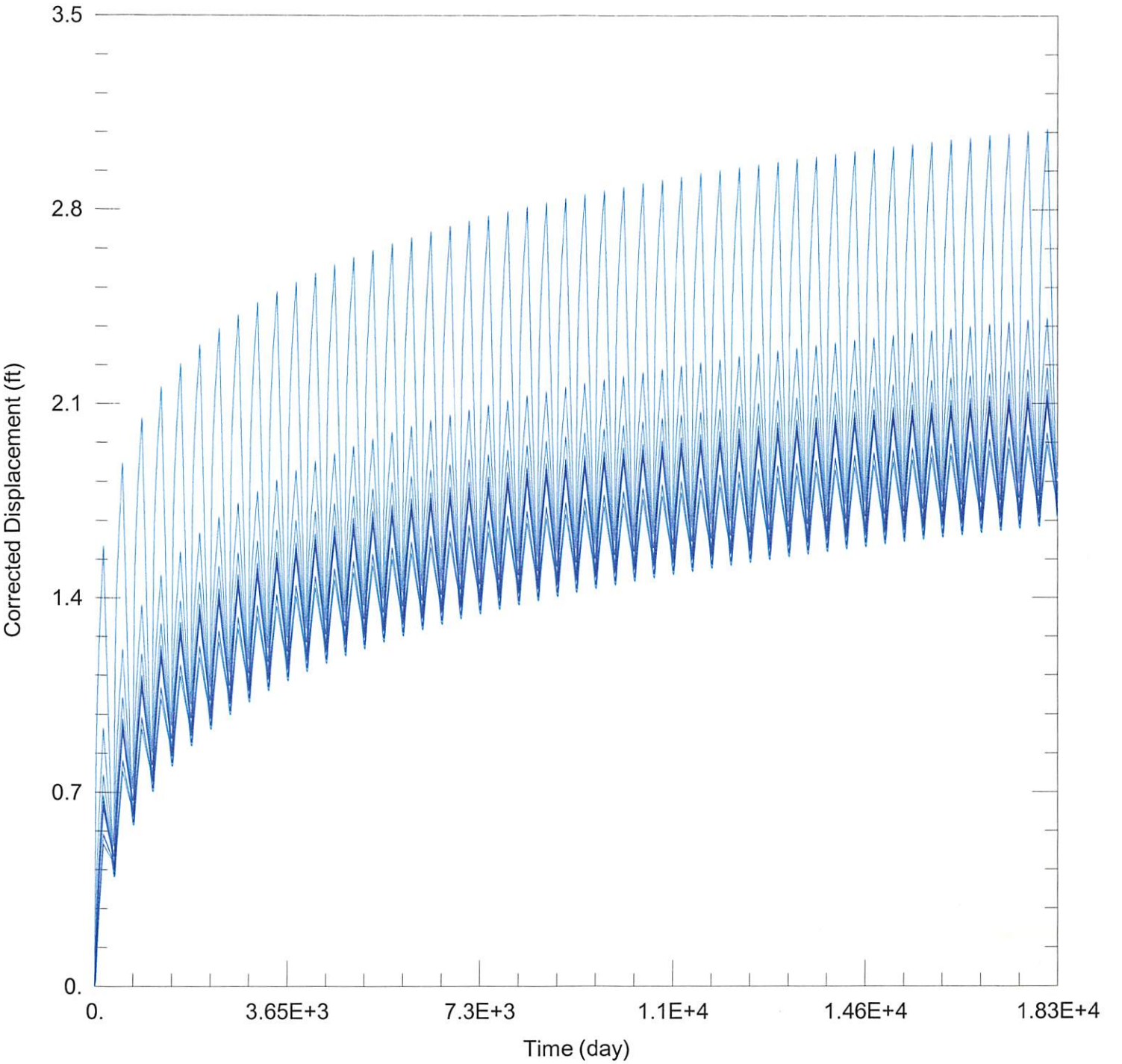
WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
18317 ID3	72912	294126

Observation Wells

Well Name	X (ft)	Y (ft)
□	72912	294126



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2023_moves\18317\18317 Proposed.aqt
Date: 04/03/23 Time: 16:41:22

PROJECT INFORMATION

Company: GMD 3
Project: 18317
Location: Gray County

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
15 AF	71671	293164

Observation Wells

Well Name	X (ft)	Y (ft)
□	71671	293164