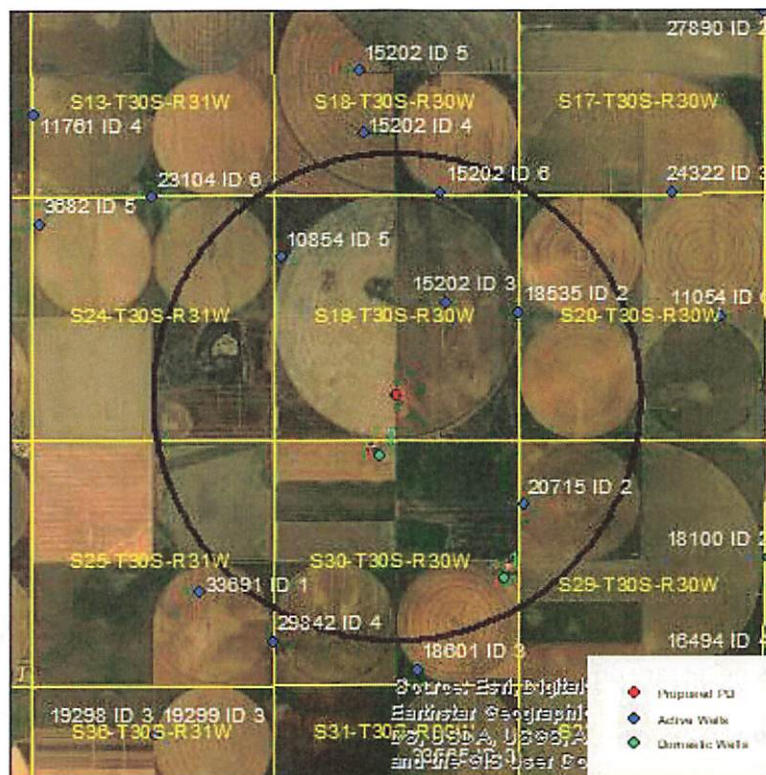


Evaluation of proposed move for Water Right No. 15202

Proposed: Move water right no. 15202 ID3 to a new well location, 2,301 ft to the southwest.



Wells within 1 mile: 15202 ID6, 10854, 18535, 20715, and two domestic wells, numbered on the above map.

The saturated thickness at the proposed well location is estimated to be 154 ft, based upon the GMD3 model. For saturated thickness between than 150 ft and 200 ft, the drawdown allowance is 3.5 ft.

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

$S = 0.2419$, $T = 5383 \text{ ft}^2/\text{day}$, $tp_{\text{current}} = 86 \text{ days}$, $Q_{\text{current}} = 700 \text{ gpm}$, $tp_{\text{proposed}} = 66 \text{ days}$, $Q_{\text{proposed}} = 1840 \text{ gpm}$

Theis drawdowns were calculated as follows:

15202 ID6: Drawdown from current location = 2.80 ft
 Drawdown from proposed location = 3.74 ft
 Net drawdown = **0.9 ft**

10854: Drawdown from current location = 2.08 ft
 Drawdown from proposed location = 4.06 ft
 Net drawdown = **2.0 ft**

18535: Drawdown from current location = 3.76 ft
Drawdown from proposed location = 4.63 ft
Net drawdown = **0.9 ft**

20715: Drawdown from current location = 1.81 ft
Drawdown from proposed location = 4.25 ft
Net drawdown = **2.4 ft**

Domestic 1: Drawdown from current location = 1.52 ft
Drawdown from proposed location = 3.71 ft
Net drawdown = **2.2 ft**

Domestic 2: Drawdown from current location = 2.12 ft
Drawdown from proposed location = 9.05 ft
Net drawdown = **6.9 ft**

Net drawdown exceeds the drawdown allowance of 3.5 ft for the domestic well labeled “2” on the map. Critical well analysis is necessary on that well.

Critical Well Evaluation:

Domestic 2:

Water Column = 181 ft

DP = 6.9 ft (Net drawdown from the proposal indicated above)

DE = 44.1 ft (Water level decline from 2023 through 2048 based upon GMD3 model)

DT = 51.0 ft

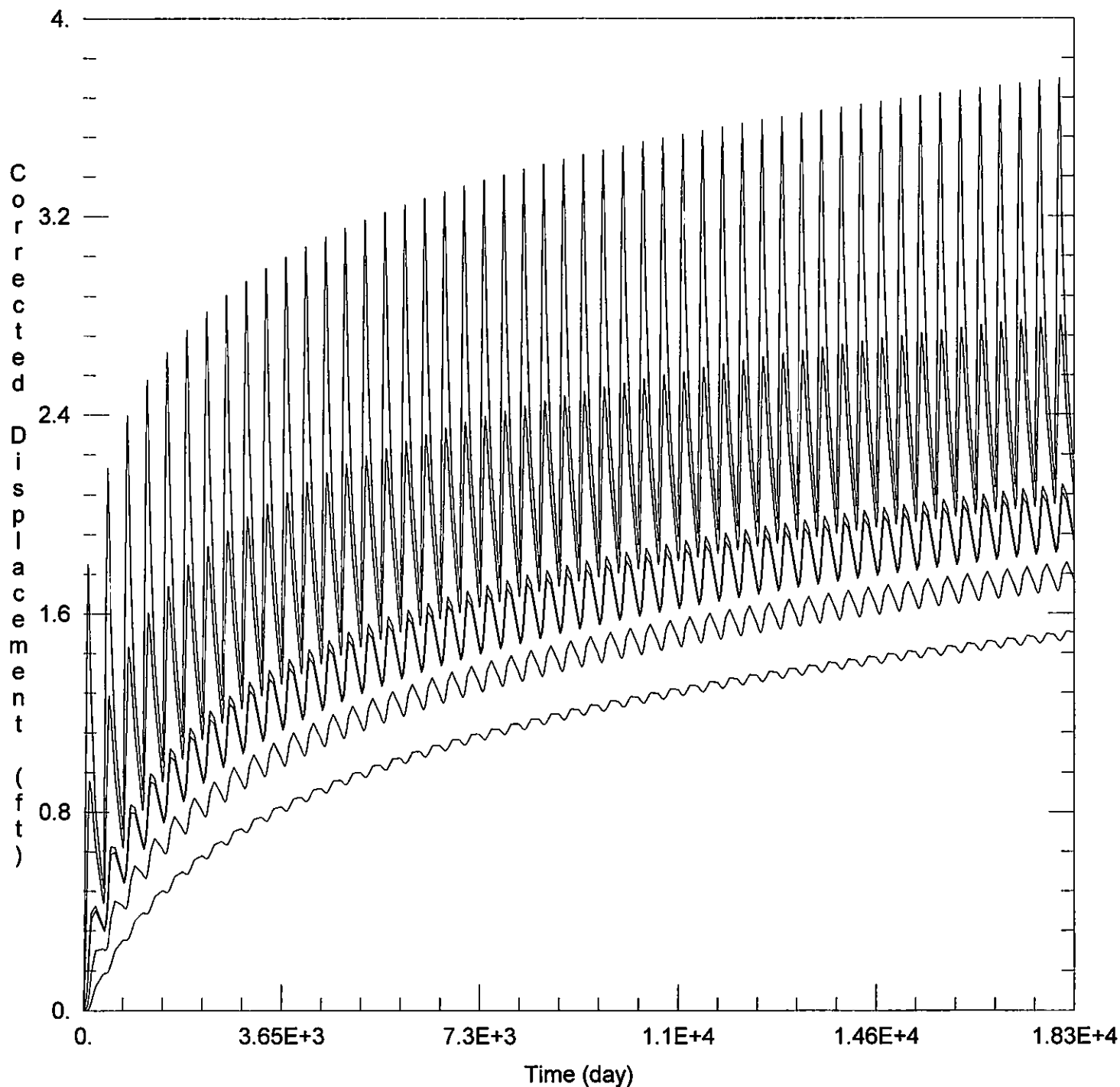
Economic Drawdown Constraint (EDC) = $0.4 * 181 \text{ ft} = 72.4 \text{ ft}$

Physical Drawdown Constraint (PDC) = $181 \text{ ft} - 20 \text{ ft} = 161 \text{ ft}$

Total drawdown of 51.0 ft is less than the EDC and the PDC, so this well **is not critical**.

Conclusion:

If the proposed well is operated at its fully authorized rate and quantity, it is likely to create a noticeable effect on the domestic well to the south. This well was not flagged as critical because projected declines, after accounting for the additional drawdown effect of this proposal, are not projected to lower the water table by more than 40% of the remaining thickness over the next 25 years or lower the water supply beyond what would support a household. 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\15202_ID3\15205 Current.aqt

Date: 09/01/23

Time: 15:45:18

PROJECT INFORMATION

Company: GMD 3

Project: 15202

Location: Meade County

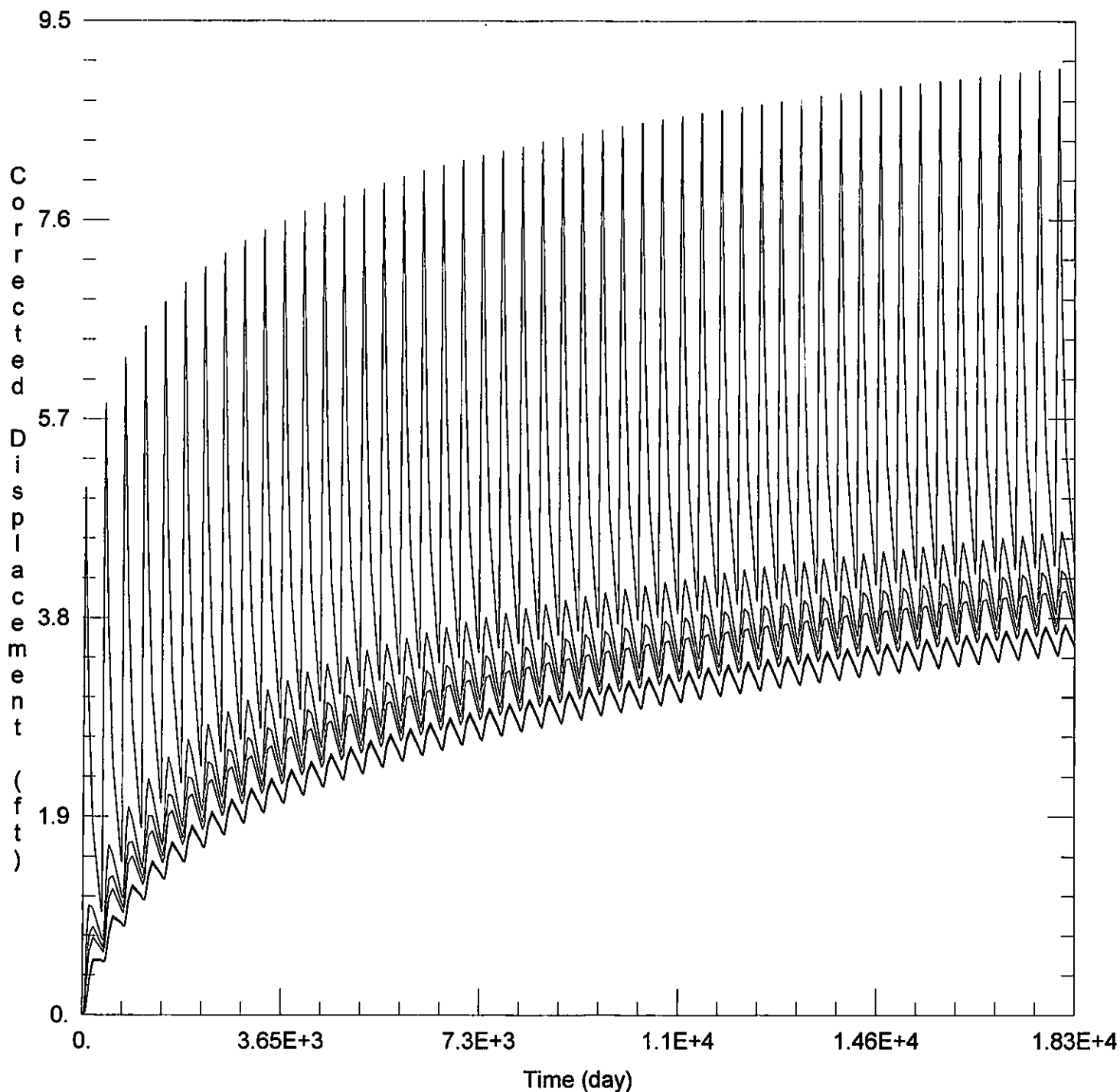
WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
15202 ID3	46360	200240

Observation Wells

Well Name	X (ft)	Y (ft)
□ 15202 ID6	46240	202606



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2023_moves\15202_ID3\15205 Proposed.aqt

Date: 09/01/23

Time: 15:45:13

PROJECT INFORMATION

Company: GMD 3

Project: 15202

Location: Meade County

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
15202 ID3	45278	198209

Observation Wells

Well Name	X (ft)	Y (ft)
□	45278	198209
□ 15202 ID6	46240	202606