Evaluation of proposed move for Water Right No. 10938

Proposed: Move water right no. 10938 to a new well location, a distance of 549 ft to the southwest.



Wells within 1 mile: 22055, 22209, 23162, 23403, 1509, 10620, and a domestic well in section 6-28-42.

The saturated thickness at the proposed well location is estimated to be 265 ft, based upon the driller's log and an observation well in section 1-28-43. 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 = 0.0900, T = 2082 ft²/day, $tp_{current} = 333$ days (based on average use and reported rate), $Q_{current} = 220$ gpm (based on 2021 water use report), $tp_{proposed} = 146$ days, $Q_{proposed} = 650$ gpm

Theis drawdowns were calculated as follows:

22055: Drawdown from current location = 6.29 ft

Drawdown from proposed location = 8.62 ft

Net drawdown = 2.3 ft

22209: Drawdown from current location = 6.10 ft

Drawdown from proposed location = 7.79 ft

Net drawdown = 1.7 ft

23162: Drawdown from current location = 6.65 ft

Drawdown from proposed location = 8.32 ft

Net drawdown = 1.7 ft

23403: Drawdown from current location = 5.16 ft

Drawdown from proposed location = 7.14 ft

Net drawdown = 2.0 ft

1509: Drawdown from current location = 7.35 ft

Drawdown from proposed location = 11.09 ft

Net drawdown = 3.7 ft

10620: Drawdown from current location = 7.27 ft

Drawdown from proposed location = 9.28 ft

Net drawdown = 2.0 ft

Domestic 6-28-42: Drawdown from current location = 5.31 ft

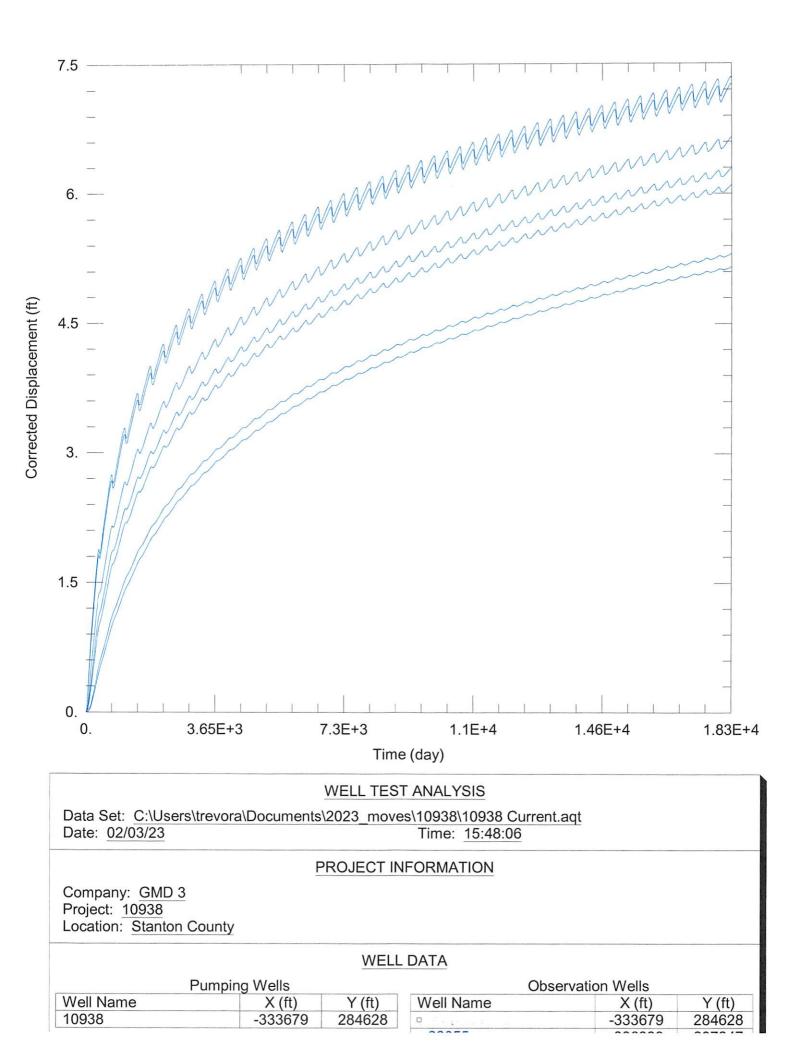
Drawdown from proposed location = 7.09 ft

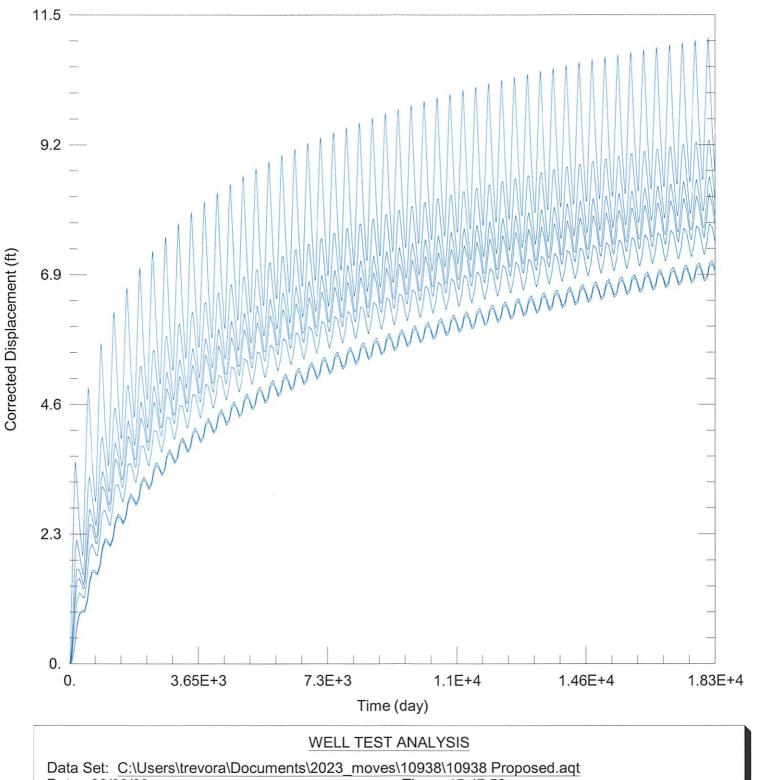
Net drawdown = 1.8 ft

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.





Date: 02/03/23 Time: 15:47:59

PROJECT INFORMATION

Company: GMD 3 Project: 10938

Location: Stanton County

WELL DATA

Pumping Wells			Observation Wells		
Well Name	X (ft)	Y (ft)	Well Name	X (ft)	Y (ft)
10938	-334144	284337	0	-334144	284337