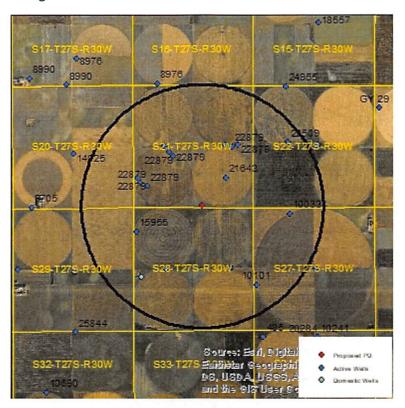
Evaluation of proposed move for Water Right No 21643

Proposed: Move water right no. 21643 a distance of 1619 ft to the southwest.



Wells within 1 mile: 20047 & 22879, 20420 & 23277, 22879, 15955, 12279, 11635, 10101, 10033, 22509, and a domestic well in section 28-27-30.

The saturated thickness at the proposed well location is estimated to be 87 ft, based upon the driller's log. For saturated thickness between 75 ft and 100 ft, the drawdown allowance is 2.0 ft.

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

S = 0.2491, T = 5318 ft²/day, $tp_{current} = 101$ days (based upon average use and observed rate), $Q_{current} = 400$ gpm (based upon last reported rate), $tp_{proposed} = 65$ days, $tp_{troposed} = 940$ gpm

Theis drawdowns were calculated as follows:

20047 & 22879:

Drawdown from current location = 2.67 ft

Drawdown from proposed location = 2.47 ft

Net drawdown = -0.2 ft

20420 & 23277:

Drawdown from current location = 1.70 ft

Drawdown from proposed location = 2.58 ft

Net drawdown = 0.9 ft

22879:	Drawdown from current location = 1.39 ft
	Diamacini il cili cali cili location - 1.33 il

Drawdown from proposed location = 2.49 ft

Net drawdown = 1.1 ft

15955: Drawdown from current location = 1.23 ft

Drawdown from proposed location = 2.36 ft

Net drawdown = 1.1 ft

12279: Drawdown from current location = 1.20 ft

Drawdown from proposed location = 2.33 ft

Net drawdown = 1.1 ft

11635: Drawdown from current location = 1.36 ft

Drawdown from proposed location = 2.44 ft

Net drawdown = 1.1 ft

10101: Drawdown from current location = 1.18 ft

Drawdown from proposed location = 1.97 ft

Net drawdown = 0.8 ft

10033: Drawdown from current location = 1.54 ft

Drawdown from proposed location = 2.08 ft

Net drawdown = 0.5 ft

22509: Drawdown from current location = 1.56 ft

Drawdown from proposed location = 1.83 ft

Net drawdown = 0.3 ft

Domestic 28-27-30: Drawdown from current location = 1.07 ft

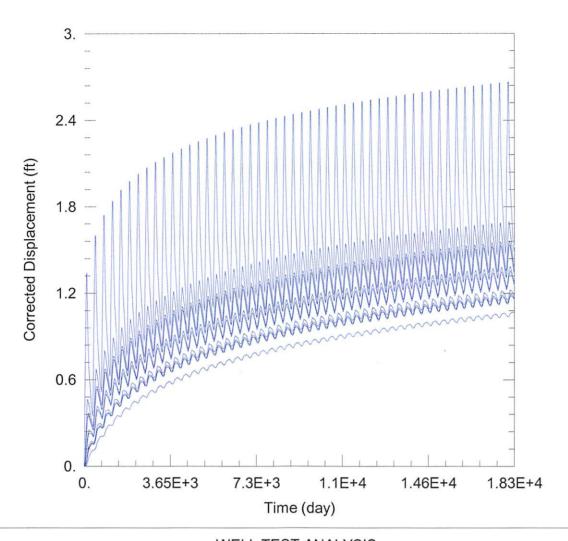
Drawdown from proposed location = 2.00 ft

Net drawdown = **0.9** ft

Net drawdown does not exceed the drawdown allowance of 2.0 ft for any wells within 1 mile of the proposed point of diversion, so critical well analysis is not necessary.

Conclusion:

The proposed change should result in minimal effects on neighboring wells and is unlikely to create an impairment situation. GMD3 staff recommends approval of the application.



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2020_moves\21643\21643 Current.aqt

Date: 01/20/20 Time: 11:30:42

PROJECT INFORMATION

Company: GMD 3 Project: 21643

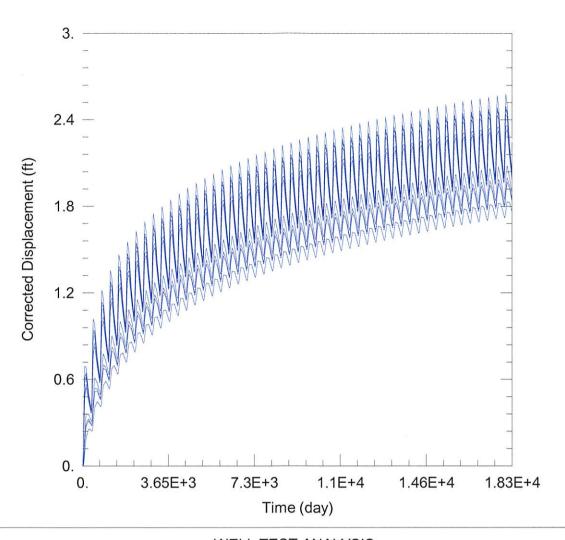
Location: Gray County Test Well: 21643

WELL DATA

Pumping Wells			
Well Name	X (ft)	Y (ft)	
21643	57140	293959	

Observation Wells			
Well Name	X (ft)	Y (ft)	
	57140	293959	
20047 & 22879	57398	295310	
20420 & 23277	54652	295075	
22879	53397	293730	
15955	53207	291610	
12279	54504	289999	
11635	57339	290072	
- 10101	58462	289312	
- 10033	59887	292412	
22509	59805	295499	
□ Domestic 28-27-30	53412	289655	

SOLUTION



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2020_moves\21643\21643 Proposed.aqt

Date: 01/20/20 Time: 11:30:36

PROJECT INFORMATION

Company: GMD 3 Project: 21643

Location: Gray County Test Well: 21643

WELL DATA

Pumping Wells			
Well Name	X (ft)	Y (ft)	
21643	56081	292735	

Observation Wells			
Well Name	X (ft)	Y (ft)	
	56081	292735	
20047 & 22879	57398	295310	
20420 & 23277	54652	295075	
22879	53397	293730	
15955	53207	291610	
12279	54504	289999	
11635	57339	290072	
- 10101	58462	289312	
□ 10033	59887	292412	
22509	59805	295499	
□ Domestic 28-27-30	53412	289655	

SOLUTION