

WELL TEST ANALYSIS

Data Set: P:\...\Well1_CurveMatching.aqt
 Date: 01/09/19

Time: 14:59:52

PROJECT INFORMATION

Company: Dudek
 Location: Jacumba
 Test Well: Well 2
 Test Date: 12/14/2018

WELL DATA

Pumping Wells

Observation Wells

Well Name	X (ft)	Y (ft)
Well 2	0	0

Well Name	X (ft)	Y (ft)
□ Well 1	305	0

SOLUTION

Aquifer Model: Unconfined

Solution Method: Theis

T = 3.629E+4 ft²/day

S = 0.02876

Kz/Kr = 1.

b = 40. ft

Diagnostic Statistics

Estimation complete! Parameter change criterion (ETOL) reached.

Aquifer Model: Unconfined
Solution Method: Theis

Estimated Parameters

Parameter	Estimate	Std. Error	Approx. C.I.	t-Ratio	
T	3.629E+4	103.2	+/- 202.3	351.5	ft ² /day
S	0.02876	0.0001907	+/- 0.0003737	150.8	
Kz/Kr	1.	not estimated			
b	40.	not estimated			ft

C.I. is approximate 95% confidence interval for parameter
t-ratio = estimate/std. error
No estimation window

K = T/b = 907.2 ft/day (0.3201 cm/sec)
Ss = S/b = 0.0007189 1/ft

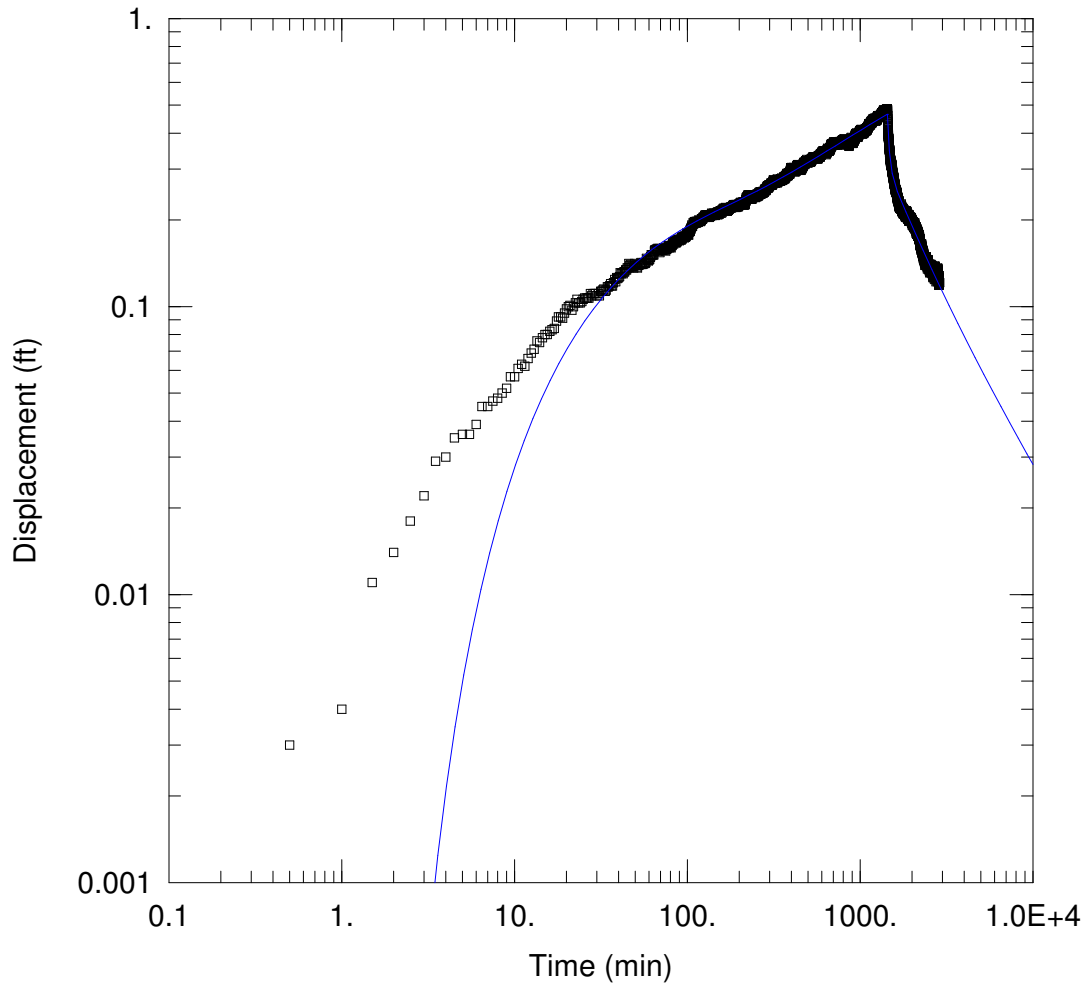
Parameter Correlations

	T	S
T	1.00	-0.81
S	-0.81	1.00

Residual Statistics

for weighted residuals

Sum of Squares 3.952 ft²
Variance 0.0006863 ft²
Std. Deviation 0.0262 ft
Mean 0.008754 ft
No. of Residuals 5760
No. of Estimates 2



WELL TEST ANALYSIS

Data Set: P:\...\Well1_CurveMatching.aqt
 Date: 02/12/19

Time: 09:57:48

PROJECT INFORMATION

Company: Dudek
 Location: Jacumba
 Test Well: Well 2
 Test Date: 12/14/2018

AQUIFER DATA

Saturated Thickness: 40. ft

WELL DATA

Pumping Wells			Observation Wells		
Well Name	X (ft)	Y (ft)	Well Name	X (ft)	Y (ft)
Well 2	0	0	□ Well 1	305	0

SOLUTION

Aquifer Model: Unconfined

Solution Method: Neuman

T = 2.641E+4 ft²/day

S = 0.00826

Sy = 0.04672

β = 0.2076

Diagnostic Statistics

Estimation complete! Parameter change criterion (ETOL) reached.

Aquifer Model: Unconfined
Solution Method: Neuman

Estimated Parameters

Parameter	Estimate	Std. Error	Approx. C.I.	t-Ratio	
T	2.641E+4	62.34	+/- 122.2	423.7	ft ² /day
S	0.00826	6.918E-5	+/- 0.0001356	119.4	
Sy	0.04672	0.0002334	+/- 0.0004574	200.2	
β	0.2076	0.0009584	+/- 0.001878	216.6	

C.I. is approximate 95% confidence interval for parameter

t-ratio = estimate/std. error

No estimation window

K = T/b = 660.4 ft/day (0.233 cm/sec)

Ss = S/b = 0.0002065 1/ft

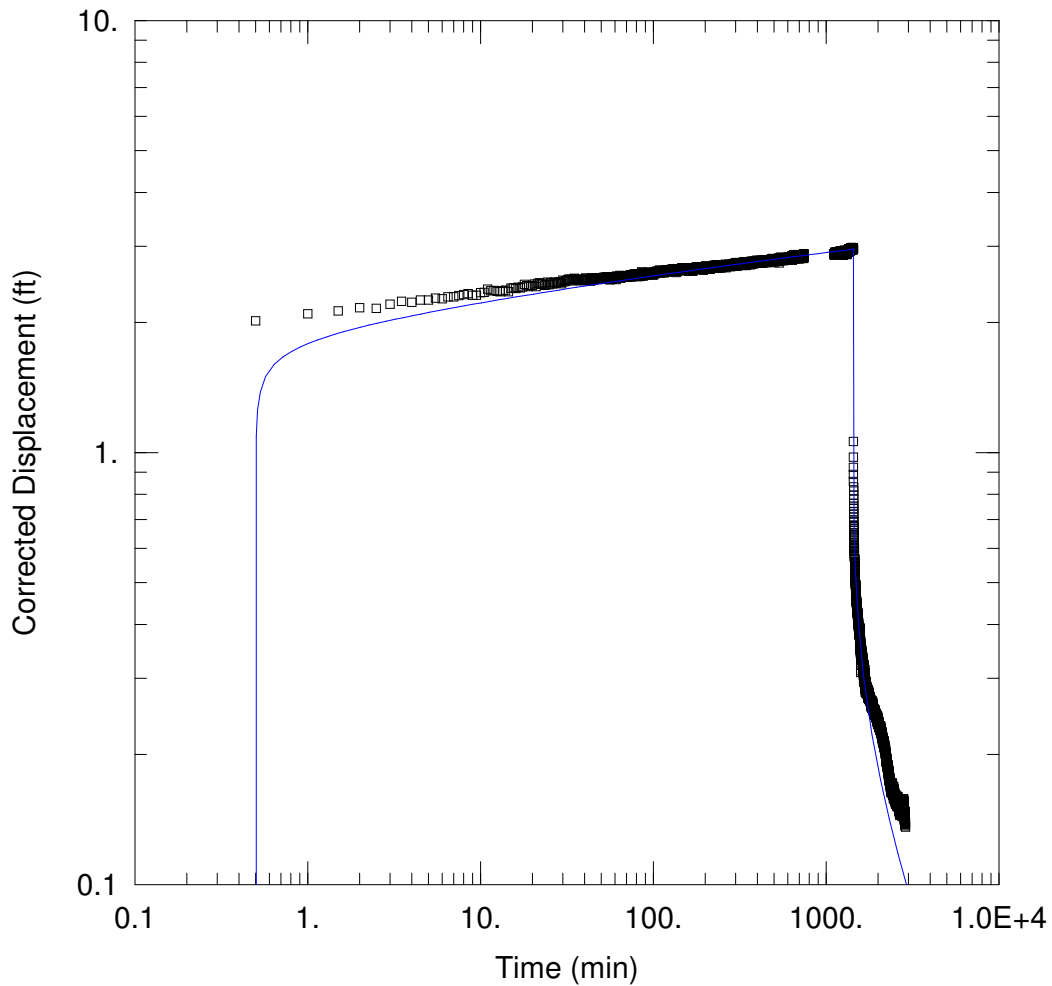
Parameter Correlations

	T	S	Sy	β
T	1.00	-0.31	-0.95	0.02
S	-0.31	1.00	0.11	-0.69
Sy	-0.95	0.11	1.00	0.11
β	0.02	-0.69	0.11	1.00

Residual Statistics

for weighted residuals

Sum of Squares 0.3775 ft²
Variance 6.558E-5 ft²
Std. Deviation 0.008098 ft
Mean -0.0002177 ft
No. of Residuals 5760
No. of Estimates 4



WELL TEST ANALYSIS

Data Set: P:\...\Well2_CurveMatching.aqt
 Date: 01/09/19

Time: 15:02:12

PROJECT INFORMATION

Company: Dudek
 Location: Jacumba
 Test Well: Well 2
 Test Date: 12/14/2018

WELL DATA

Pumping Wells

Observation Wells

Well Name	X (ft)	Y (ft)
Well 2	0	0

Well Name	X (ft)	Y (ft)
□ Well 2	0	0

SOLUTION

Aquifer Model: Unconfined

Solution Method: Theis

T = 3.305E+4 ft²/day

S = 0.000136

Kz/Kr = 1.

b = 40. ft

Diagnostic Statistics

Estimation complete! RSS criterion (RTOL) reached.

Aquifer Model: Unconfined
Solution Method: Theis

Estimated Parameters

Parameter	Estimate	Std. Error	Approx. C.I.	t-Ratio	
T	3.305E+4	107.4	+/- 210.6	307.6	ft ² /day
S	0.000136	7.934E-6	+/- 1.555E-5	17.14	
Kz/Kr	1.	not estimated			
b	40.	not estimated			ft

C.I. is approximate 95% confidence interval for parameter
t-ratio = estimate/std. error
No estimation window

K = T/b = 826.3 ft/day (0.2915 cm/sec)
Ss = S/b = 3.399E-6 1/ft

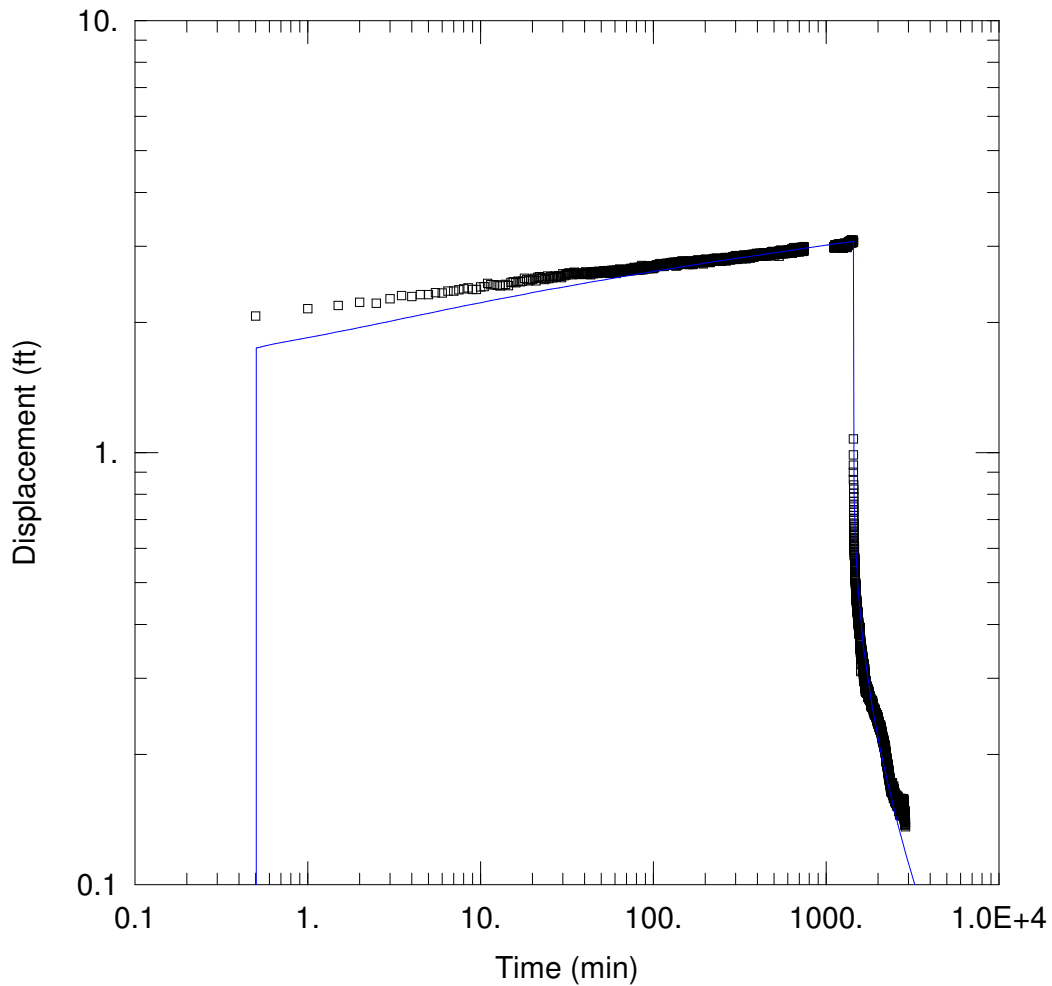
Parameter Correlations

	T	S
T	1.00	-0.99
S	-0.99	1.00

Residual Statistics

for weighted residuals

Sum of Squares 11.52 ft²
Variance 0.002314 ft²
Std. Deviation 0.04811 ft
Mean 0.01864 ft
No. of Residuals 4980
No. of Estimates 2



WELL TEST ANALYSIS

Data Set: P:\...\Well2_CurveMatching_Neuman.aqt
 Date: 02/13/19 Time: 11:40:44

PROJECT INFORMATION

Company: Dudek
 Location: Jacumba
 Test Well: Well 2
 Test Date: 12/14/2018

AQUIFER DATA

Saturated Thickness: 40. ft

WELL DATA

Pumping Wells			Observation Wells		
Well Name	X (ft)	Y (ft)	Well Name	X (ft)	Y (ft)
Well 2	0	0	□ Well 2	0	0

SOLUTION

Aquifer Model: Unconfined Solution Method: Neuman
 $T = 2.831E+4 \text{ ft}^2/\text{day}$ $S = 1.0E-10$
 $Sy = 0.001$ $\beta = 1.0E-5$

Diagnostic Statistics

Estimation complete! Parameter change criterion (ETOL) reached.

Aquifer Model: Unconfined
Solution Method: Neuman

Estimated Parameters

Parameter	Estimate	Std. Error	Approx. C.I.	t-Ratio	
T	2.831E+4	93.	+/- 182.3	304.4	ft ² /day
S	1.0E-10	0.0002303	+/- 0.0004513	4.343E-7	
Sy	0.001	0.0002364	+/- 0.0004633	4.23	
β	1.0E-5	3.438E-6	+/- 6.739E-6	2.908	

C.I. is approximate 95% confidence interval for parameter
t-ratio = estimate/std. error
No estimation window

K = T/b = 707.8 ft/day (0.2497 cm/sec)
Ss = S/b = 2.5E-12 1/ft

Parameter Correlations

	T	S	Sy	β
T	1.00	-0.01	-0.21	0.05
S	-0.01	1.00	-0.98	-0.69
Sy	-0.21	-0.98	1.00	0.67
β	0.05	-0.69	0.67	1.00

Residual Statistics

for weighted residuals

Sum of Squares 14.1 ft²
Variance 0.002833 ft²
Std. Deviation 0.05322 ft
Mean 0.003024 ft
No. of Residuals 4980
No. of Estimates 4