

Data Set: Z:\GW Data Steward Working Area\Caloosahatchee River Seepage\Caloosahatchee Well Drawdown Re

Title: Caloosahatchee River Seepage Project

Date: 06/15/16

Time: 15:27:04

### PROJECT INFORMATION

Company: SFWMD

Client: SFWMD

Test Date: 8/17/1999

Test Well: CRS05NM

### AQUIFER DATA

Saturated Thickness: 50. ft

Anisotropy Ratio (Kz/Kr): 0.25

### SLUG TEST WELL DATA

Test Well: CRS05NM

X Location: 0. ft

Y Location: 0. ft

Initial Displacement: 11.49 ft

Static Water Column Height: 52. ft

Casing Radius: 0.0833 ft

Well Radius: 0.25 ft

Well Skin Radius: 0.25 ft

Screen Length: 5. ft

Total Well Penetration Depth: 52. ft

Corrected Casing Radius (Bouwer-Rice Method): 0.0833 ft

Gravel Pack Porosity: 0.

No. of Observations: 124

<u>Observation Data</u>			
<u>Time (min)</u>	<u>Displacement (ft)</u>	<u>Time (min)</u>	<u>Displacement (ft)</u>
0.0163	11.45	3.391	5.566
0.0327	11.39	3.589	5.364
0.049	11.34	3.799	5.14
0.0653	11.28	4.022	4.905
0.0817	11.22	4.258	4.682
0.098	11.17	4.508	4.448
0.1143	11.13	4.772	4.222
0.1307	11.1	5.053	3.982
0.147	11.08	5.349	3.774
0.1633	11.05	5.664	3.554
0.1797	11.02	5.997	3.325
0.196	10.97	6.35	3.091
0.2123	10.92	6.724	2.877
0.2287	10.87	7.12	2.659
0.245	10.81	7.539	2.456
0.2613	10.76	7.984	2.256

<u>Time (min)</u>	<u>Displacement (ft)</u>	<u>Time (min)</u>	<u>Displacement (ft)</u>
0.2777	10.72	8.454	2.076
0.294	10.7	8.953	1.887
0.3103	10.68	9.481	1.712
0.3267	10.64	10.04	1.561
0.3433	10.61	10.63	1.41
0.361	10.58	11.26	1.278
0.3797	10.53	11.92	1.146
0.3995	10.46	12.63	1.029
0.4205	10.38	13.37	0.925
0.4427	10.39	14.16	0.829
0.4662	10.3	15.	0.752
0.491	10.27	15.89	0.674
0.5173	10.23	16.83	0.608
0.5453	10.14	17.82	0.556
0.575	10.11	18.82	0.505
0.6063	10.08	19.82	0.468
0.6395	9.916	20.82	0.439
0.6747	9.838	21.82	0.42
0.712	9.799	22.82	0.39
0.7515	9.727	23.82	0.386
0.7933	9.637	24.82	0.37
0.8377	9.547	25.82	0.357
0.8847	9.435	26.82	0.342
0.9345	9.29	27.82	0.332
0.9872	9.238	28.82	0.322
1.043	9.124	29.82	0.325
1.102	8.972	30.82	0.319
1.165	8.893	31.82	0.311
1.231	8.725	32.82	0.312
1.302	8.64	33.82	0.305
1.376	8.491	34.82	0.301
1.455	8.348	35.82	0.296
1.539	8.195	36.82	0.298
1.627	8.057	37.82	0.298
1.721	7.89	38.82	0.29
1.82	7.705	39.82	0.288
1.926	7.549	40.82	0.286
2.037	7.381	41.82	0.288
2.155	7.212	42.82	0.283
2.281	7.023	43.82	0.283
2.413	6.806	44.82	0.289
2.554	6.614	45.82	0.28
2.702	6.43	46.82	0.283
2.86	6.221	47.82	0.282
3.027	6.02	48.82	0.282
3.204	5.786	49.82	0.28

SOLUTION

Slug Test  
 Aquifer Model: Confined  
 Solution Method: Butler  
 Log Factor: 0.2282

VISUAL ESTIMATION RESULTS

Estimated Parameters

<u>Parameter</u>	<u>Estimate</u>	
K	0.9214	ft/day
Le	0.1	ft

K = 0.0003251 cm/sec  
 T = K\*b = 46.07 ft<sup>2</sup>/day (0.4954 sq. cm/sec)  
 Le = 0.1 ft  
 Solution is critically damped when C(D) = 1.

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

<u>Parameter</u>	<u>Estimate</u>	<u>Std. Error</u>	<u>Approx. C.I.</u>	<u>t-Ratio</u>	
K	0.9214	0.008478	+/- 0.01679	108.7	ft/day
Le	0.1	7528.	+/- 1.491E+4	1.328E-5	ft

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

K = 0.0003251 cm/sec  
 T = K\*b = 46.07 ft<sup>2</sup>/day (0.4954 sq. cm/sec)  
 Le = 0.1 ft  
 Solution is critically damped when C(D) = 1.

Parameter Correlations

	<u>K</u>	<u>Le</u>
K	1.00	0.57
Le	0.57	1.00

Residual Statistics

for weighted residuals

Sum of Squares... 4.06 ft<sup>2</sup>  
 Variance ..... 0.03328 ft<sup>2</sup>  
 Std. Deviation ..... 0.1824 ft  
 Mean ..... 0.05705 ft  
 No. of Residuals .. 124  
 No. of Estimates .. 2

NOTES

Estimated thickness of water table aquifer - 30 feet  
 Estimated thickness of Lower Tamiami Aquifer - 50 feet leaky confined