

Data Set: Z:\Turkey Point FPL Units 6 and 7\Hydrogeology\Slug Test Files\OW-606U_SPRINGER-GELHAR.aqt
 Title: OW-606 U RISING HEAD 5/20/08
 Date: 06/08/16
 Time: 09:43:25

PROJECT INFORMATION

Company: Turkey Point
 Client: BECHTEL
 Project: 6468-07-1950
 Location: Turkey Point
 Test Date: 5-20-08
 Test Well: OW-606 U

AQUIFER DATA

Saturated Thickness: 29.89 ft
 Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: OW-606 U

X Location: 0. ft
 Y Location: 0. ft

Initial Displacement: 2.792 ft
 Static Water Column Height: 29.89 ft
 Casing Radius: 0.083 ft
 Well Radius: 0.3 ft
 Well Skin Radius: 0.3 ft
 Screen Length: 15.17 ft
 Total Well Penetration Depth: 30.17 ft

No. of Observations: 50

Time (sec)	Observation Data		Displacement (ft)
	Displacement (ft)	Time (sec)	
0.	2.792	30.6	0.002
0.6	1.911	33.	0.048
1.201	0.447	35.52	-0.003
1.8	-0.499	38.16	0.043
2.46	-0.769	40.98	-0.006
3.18	-0.433	43.98	0.028
3.96	0.165	47.16	0.02
4.74	0.585	50.52	0.015
5.581	0.598	54.12	0.026
6.48	0.127	57.72	0.018
7.44	-0.308	61.92	0.016
8.4	-0.254	66.12	0.019
9.48	0.127	70.32	0.025
10.62	0.316	75.12	0.031
11.82	0.063	80.52	0.019
13.08	-0.186	85.32	0.019

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
14.4	-0.022	91.32	0.025
15.84	0.19	97.32	0.025
17.34	0.028	103.3	0.025
18.9	-0.1	109.9	0.025
20.58	0.08	117.1	0.019
22.38	0.065	124.9	0.027
24.24	-0.056	132.7	0.023
26.28	0.074	141.1	0.024
28.38	0.01	150.1	0.024

SOLUTION

Slug Test

Aquifer Model: Unconfined

Solution Method: Springer-Gelhar

ln(Re/rw): 3.434

VISUAL ESTIMATION RESULTSEstimated Parameters

Parameter	Estimate	
K	134.8	ft/day
Le	17.7	ft

K = 0.04755 cm/sec

T = K*b = 4029.2 ft²/day (43.32 sq. cm/sec)

Le = 17.7 ft

Solution is critically damped when C(D) = 2.

AUTOMATIC ESTIMATION RESULTSEstimated Parameters

Parameter	Estimate	Std. Error	Approx. C.I.	t-Ratio	
K	134.8	7.54	+/- 15.16	17.88	ft/day
Le	17.7	0.6882	+/- 1.384	25.71	ft

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

t-ratio = estimate/std. error

No estimation window

K = 0.04755 cm/sec

T = K*b = 4029.2 ft²/day (43.32 sq. cm/sec)

Le = 17.7 ft

Solution is critically damped when C(D) = 2.

Parameter Correlations

	K	Le
K	1.00	0.06
Le	0.06	1.00

Residual Statistics

for weighted residuals

Sum of Squares... 0.6474 ft²
Variance 0.01349 ft²
Std. Deviation..... 0.1161 ft
Mean..... 0.03703 ft
No. of Residuals .. 50
No. of Estimates .. 2