Data Set: Z:\Turkey Point FPL Units 6 and 7\Hydrogeology\Slug Test Files\OW-812L_RHT_BUTLER.aqt
Title: OW-812 L RISING HEAD TEST 5-20-08
Date: 06/08/16
Time: 15:02:16

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PROJECT INFORMATION

Company: MACTEC
Client: Bechtel
Project: 6468-07-1950
Location: Turkey Point COL
Test Date: 5/20/2008
Test Well: OW-812 L

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AQUIFER DATA

Saturated Thickness: 86. ft
Anisotropy Ratio (Kz/Kr): 1.

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SLUG TEST WELL DATA

Test Well: OW-812 L

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

Initial Displacement: 10.48 ft
Static Water Column Height: 109.3 ft
Casing Radius: 0.083 ft
Well Radius: 0.25 ft
Well Skin Radius: 0.25 ft
Screen Length: 15. ft
Total Well Penetration Depth: 109. ft

No. of Observations: 25

Observation Data

| Time (sec) | Displacement (ft) | Time (sec) | Displacement (ft) |
|---|---|---|---|
| 0. | 10.48 | 7.296 | 1.536 |
| 0.222 | 10.29 | 8.137 | 1.216 |
| 0.637 | 9.641 | 9.037 | 0.952 |
| 1.153 | 8.578 | 9.997 | 0.738 |
| 1.537 | 7.742 | 10.96 | 0.584 |
| 2.076 | 6.613 | 12.04 | 0.468 |
| 2.556 | 5.731 | 13.18 | 0.395 |
| 3.157 | 4.814 | 14.38 | 0.361 |
| 3.757 | 4.053 | 15.64 | 0.346 |
| 4.357 | 3.434 | 16.96 | 0.341 |
| 5.016 | 2.869 | 18.4 | 0.336 |
| 5.736 | 2.363 | 19.9 | 0.338 |
| 6.516 | 1.9 | | |

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SOLUTION

Slug Test
Aquifer Model: Confined
Solution Method: Butler
Log Factor: 0.2089

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VISUAL ESTIMATION RESULTS

Estimated Parameters

| Parameter | Estimate |
|---|---|

| | | |
|---|---|---|
| K | 21.01 | ft/day |
| Le | 47.1 | ft |

K = 0.007412 cm/sec
T = K*b = 1806.9 ft²/day (19.43 sq. cm/sec)
Le = 47.1 ft
Solution is critically damped when C(D) = 1.

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AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

| Parameter | Estimate | Std. Error | Approx. C.I. | t-Ratio | |
|---|---|---|---|---|---|
| K | 21.01 | 0.2008 | +/- 0.4155 | 104.6 | ft/day |
| Le | 47.1 | 4.282 | +/- 8.86 | 11. | ft |

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

K = 0.007412 cm/sec
T = K*b = 1806.9 ft²/day (19.43 sq. cm/sec)
Le = 47.1 ft
Solution is critically damped when C(D) = 1.

Parameter Correlations

| | K | Le |
|---|---|---|
| K | 1.00 | 0.16 |
| Le | 0.16 | 1.00 |

Residual Statistics

for weighted residuals

Sum of Squares. . . 0.3271 $ft^2$
Variance . . . . . 0.01422 $ft^2$
Std. Deviation . . . . . 0.1193 ft
Mean . . . . . 0.04833 ft
No. of Residuals . . 25
No. of Estimates . . 2