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RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

Estimate Std. Error
 T = 2.9977E+002 +/- 7.2283E+001 ft^2/day
 S = 1.0000E-005 +/- 2.5523E-005

ANALYSIS OF MODEL RESIDUALS

residual = observed - calculated
 weighted residual = residual * weight

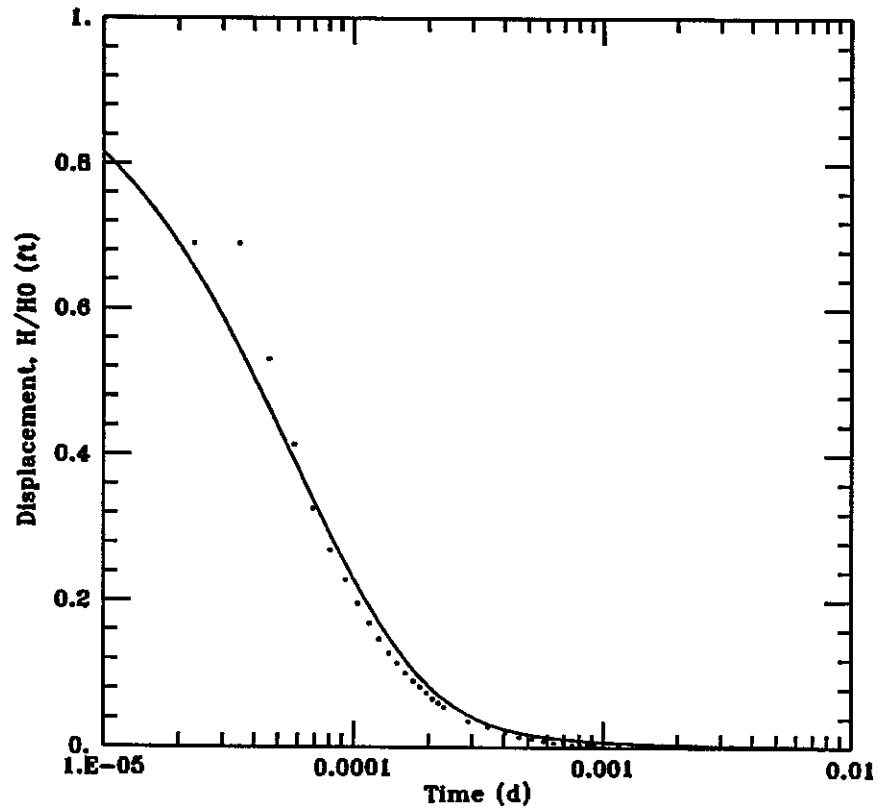
Weighted Residual Statistics:

Number of residuals..... 32
 Number of estimated parameters.... 2
 Degrees of freedom..... 30
 Residual mean..... -0.006553
 Residual standard deviation..... 0.119
 Residual variance..... 0.01416

Model Residuals:

Time	Observed	Calculated	Residual	Weight
2.3E-005	2.53	2.4094	0.12062	1
3.5E-005	2.53	2.0024	0.52755	1
4.6E-005	1.95	1.7051	0.24494	1
5.8E-005	1.52	1.4419	0.078121	1
6.9E-005	1.2	1.2441	-0.044129	1
8.1E-005	0.99	1.0657	-0.075671	1
9.3E-005	0.84	0.91822	-0.078222	1
0.000104	0.72	0.805	-0.084999	1
0.000116	0.62	0.70093	-0.080932	1
0.000127	0.54	0.62021	-0.080212	1
0.000139	0.47	0.54533	-0.075334	1
0.00015	0.42	0.48675	-0.066751	1
0.000162	0.37	0.43196	-0.061963	1
0.000174	0.33	0.38513	-0.055128	1
0.000185	0.3	0.34806	-0.048056	1

SLUG TEST FOR WELL KRRENM2



DATA SET:
KRREN2.DAT
02/07/97

AQUIFER MODEL:
Confined
SOLUTION METHOD:
Cooper et al.

TEST DATA:
H₀ = 3.67 ft
r_c = 0.0833 ft
r_w = 0.25 ft

PARAMETER ESTIMATES:
T = 299.8 ft²/day
S = 1.E-05

KRREN2 SLUG TEST DATA

ELAPSED TIME (MIN)	HERMIT VALUE (FT)	ELAPSED TIME (DAYS)	DRAWDOWN (FT)	WEIGHT
0.000000	22.05	0.000000	1.30	1
0.003300	22.64	0.000002	0.71	1
0.006600	21.31	0.000005	2.04	1
0.009900	21.54	0.000007	1.81	1
0.013300	22.55	0.000009	0.80	1
0.016600	21.98	0.000012	1.37	1
0.020000	21.22	0.000014	2.13	1
0.023300	21.18	0.000016	2.17	1
0.026600	21.07	0.000018	2.28	1
0.030000	20.93	0.000021	2.42	1
0.033300	20.82	0.000023	2.53	1
0.050000	20.82	0.000035	2.53	1
0.066600	21.40	0.000046	1.95	1
0.083300	21.83	0.000058	1.52	1
0.100000	22.15	0.000069	1.20	1
0.116600	22.36	0.000081	0.99	1
0.133300	22.51	0.000093	0.84	1
0.150000	22.63	0.000104	0.72	1
0.166600	22.73	0.000116	0.62	1
0.183300	22.81	0.000127	0.54	1
0.200000	22.88	0.000139	0.47	1
0.216600	22.93	0.000150	0.42	1
0.233300	22.98	0.000162	0.37	1
0.250000	23.02	0.000174	0.33	1
0.266600	23.05	0.000185	0.30	1
0.283300	23.08	0.000197	0.27	1
0.300000	23.11	0.000208	0.24	1
0.316600	23.13	0.000220	0.22	1
0.333300	23.15	0.000231	0.20	1
0.416700	23.22	0.000289	0.13	1
0.500000	23.25	0.000347	0.10	1
0.583300	23.28	0.000405	0.07	1
0.666700	23.30	0.000463	0.05	1
0.750000	23.31	0.000521	0.04	1
0.833300	23.32	0.000579	0.03	1
0.916700	23.33	0.000637	0.02	1
1.000000	23.33	0.000694	0.02	1
1.083300	23.34	0.000752	0.01	1
1.166700	23.34	0.000810	0.01	1
1.250000	23.34	0.000868	0.01	1

KRREN2 SLUG TEST DATA

ELAPSED TIME (MIN)	HERMIT VALUE (FT)	ELAPSED TIME (DAYS)	DRAWDOWN (FT)	WEIGHT
1.333300	23.34	0.000926	0.01	1
1.416600	23.35	0.000984	0.00	1
1.500000	23.35	0.001042	0.00	1
1.583300	23.35	0.001100	0.00	1
1.666700	23.34	0.001157	0.01	1
1.750000	23.35	0.001215	0.00	1
1.833300	23.35	0.001273	0.00	1
1.916700	23.35	0.001331	0.00	1
2.000000	23.35	0.001389	0.00	1
2.500000	23.35	0.001736	0.00	1
3.000000	23.35	0.002083	0.00	1
3.500000	23.35	0.002431	0.00	1
4.000000	23.35	0.002778	0.00	1
4.500000	23.36	0.003125	-0.01	1
5.000000	23.36	0.003472	-0.01	1
5.500000	23.35	0.003819	0.00	1
6.000000	23.36	0.004167	-0.01	1
6.500000	23.36	0.004514	-0.01	1
7.000000	23.36	0.004861	-0.01	1
7.500000	23.37	0.005208	-0.02	1
8.000000	23.36	0.005556	-0.01	1
8.500000	23.35	0.005903	0.00	1
9.000000	23.35	0.006250	0.00	1
9.500000	23.35	0.006597	0.00	1
10.000000	23.35	0.006944	0.00	1

END

KRRENM2 SLUG TEST DATA

ELAPSED TIME (MIN)	HERMIT VALUE (FT)	ELAPSED TIME (DAYS)	DRAWDOWN (FT)	WEIGHT
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This is the slug test data for well KRRENM2.

This is the near-field mid depth well # 2 at Transect E.

TD = 76 ft

CD = 66 ft

DTW = (2.65 -4.57) = -1.92 ft This means the static water level is 1

Rc = 1 in = 0.0833 ft

Rw = 3 in = 0.250 ft

screen length = 10 ft

saturated thickness = H = 10 ft

Static height of water in well = Lw = 77.92

Calculations for volume of slug

Rs = 0.6 in = 0.05 ft

Ls = 10.2 ft = length of slug

Vs = 3.14 * Rs² * Ls

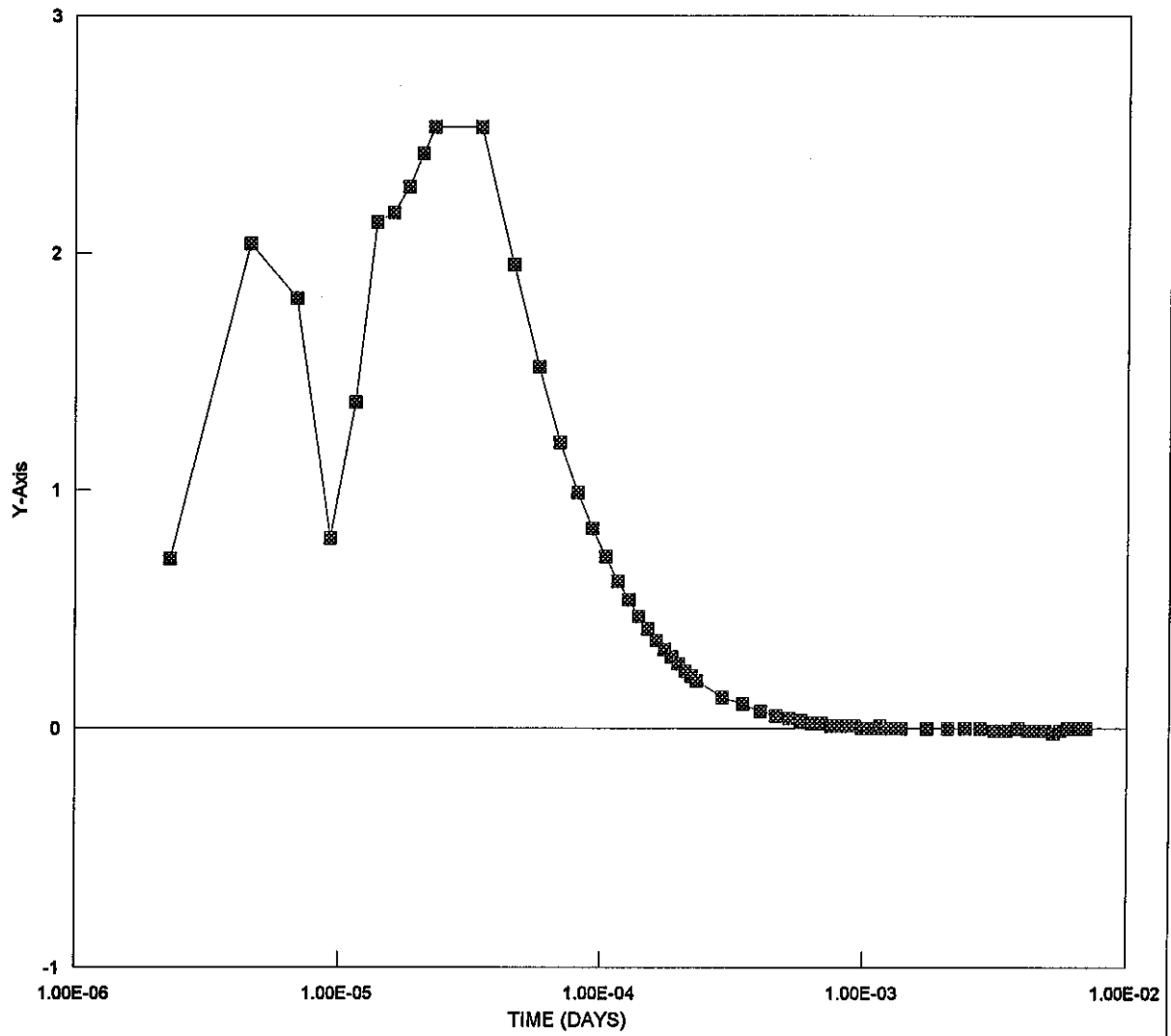
Vs = 0.08007

Calculations for H0

H0 = Vs / (3.14 * Rc²)

Ho = 3.67

KRRENM2 SLUG TEST



DISPLACEMENT