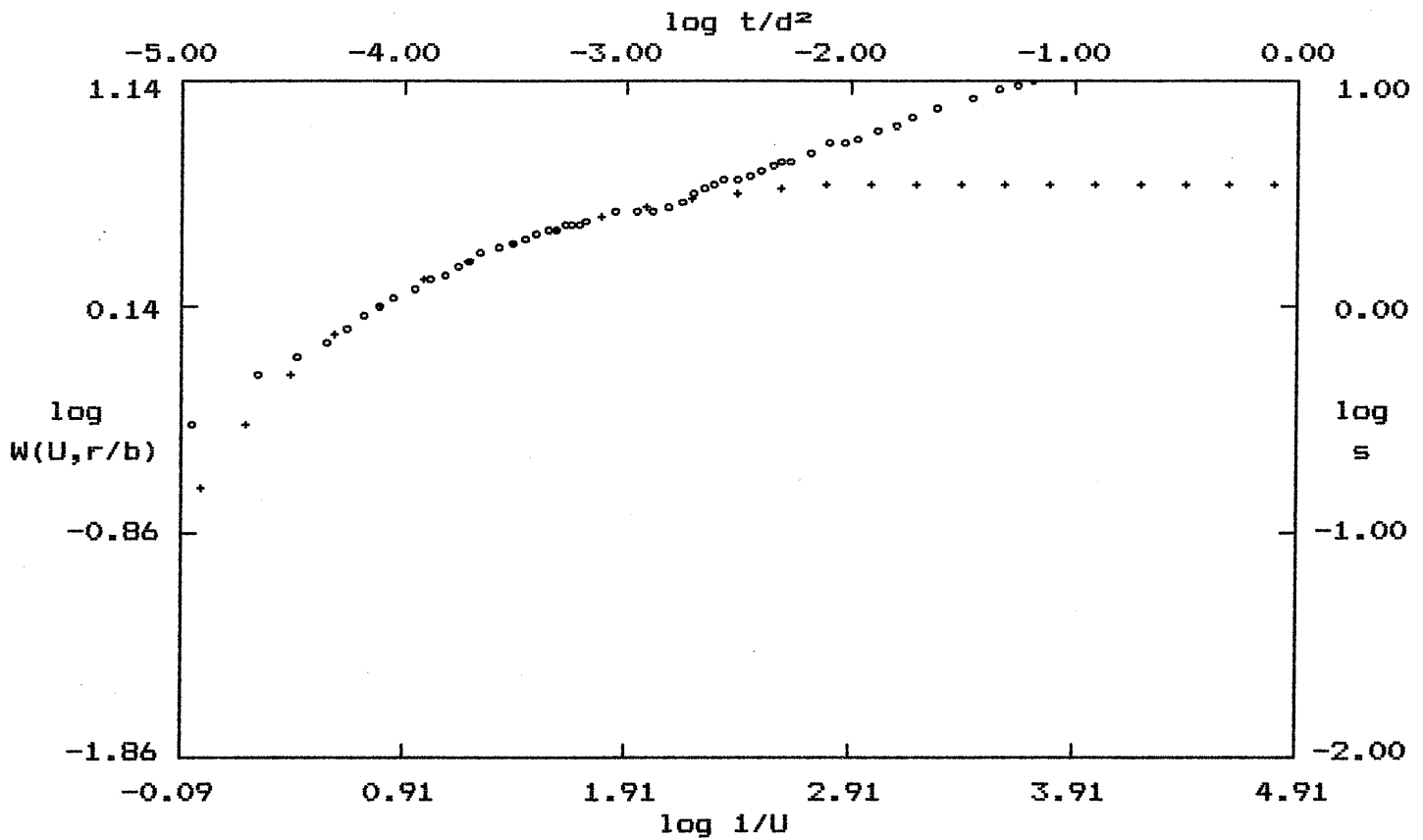


PUMP TEST DATA



o - Data

+ - Type Curve

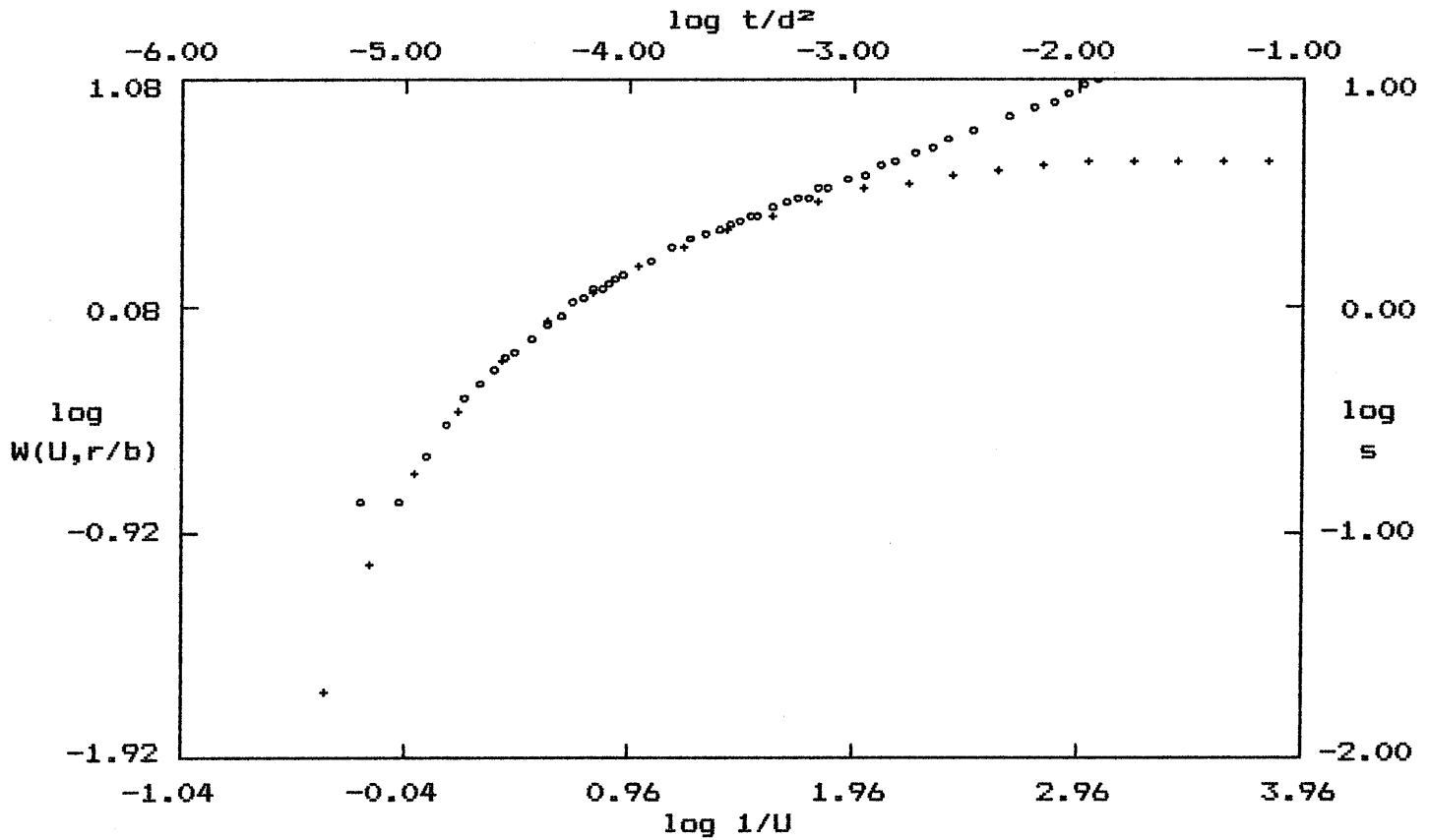
Confined Leaky: $r/B = 0.10$

SOLUTION

Transmissivity = $1.087E+01$ ft.²/min. 117,083 gpd/ft
 Storativity = $5.347E-04$

Walter Ferguson Well 2

PUMP TEST DATA



o - Data

+ - Type Curve

Confined Leaky: $r/B = 0.08$

SOLUTION

Transmissivity = $9.464E+00$ ft.²/min. 101,942 gpd/ft

Storativity = $4.151E-04$

Walter Ferguson Wolf 3

OPTIMIZATION BY LEVENBERG-MARQUARDT MINIMIZATION ALGORITHM

ITER	FUNCTION	TRANSMISS	STORTIVTY
1	6.28	.5617E+05	.1863E-02
3	3.58	.2632E+05	.8238E-02
5	2.36	.2748E+05	.1441E-01
6	2.32	.2589E+05	.1772E-01
7	2.31	.2568E+05	.1894E-01
8	2.31	.2556E+05	.1936E-01
9	2.31	.2552E+05	.1953E-01

TERMINATION DUE TO PARAMETER CONVERGENCE

FINAL RESULTS

ITER	FUNCTION	TRANSMISS	STORTIVTY
9	2.31	.2551E+05	.1959E-01

FRACTIONAL COMPONENTS OF FUNCTION VALUE

WELL #	1	2	3
	1.000	.0000	.0000

DO YOU WANT A SENSITIVITY ANALYSIS ? (Y/N)

SENSITIVITY ANALYSIS

TWO STANDARD DEVIATION CONFIDENCE INTERVALS

PARAMETER	VALUE	LOWER LIMIT	UPPER LIMIT
TRANSMISS	.2551E+05	0.2494E+05	0.2608E+05
STORTIVTY	.1959E-01	0.1540E-02	0.3764E-01

TO CONTINUE ENTER "RETURN"

Walter Ferguson Well 1

partial penetration, boundary

T = 190,815 gpd/ft

S = 1.959 x 10⁻²

K/b = ?

OPTIMIZATION BY LEVENBERG-MARQUARDT MINIMIZATION ALGORITHM

ITER	FUNCTION	TRANSMISS	STORTIVITY
1	6.06	.1623E+05	.2420E-03
3	4.20	.1018E+05	.3561E-03
4	3.09	9217.	.1099E-02
5	2.45	7282.	.3397E-02
6	2.38	6896.	.4476E-02
7	2.37	6790.	.4867E-02
8	2.37	6751.	.5013E-02
9	2.37	6740.	.5061E-02

TERMINATION DUE TO PARAMETER CONVERGENCE

FINAL RESULTS

ITER	FUNCTION	TRANSMISS	STORTIVITY
9	2.37	6735.	.5079E-02

FRACTIONAL COMPONENTS OF FUNCTION VALUE

WELL #	1	2	3
	1.000	.0000	.0000

DO YOU WANT A SENSITIVITY ANALYSIS ? (Y/N)

SENSITIVITY ANALYSIS

TWO STANDARD DEVIATION CONFIDENCE INTERVALS

PARAMETER	VALUE	LOWER LIMIT	UPPER LIMIT
TRANSMISS	6735.	6587.	6884.
STORTIVITY	.5079E-02	0.3651E-03	0.9792E-02

TO CONTINUE ENTER "RETURN"

Walter Ferguson Well 1

boundary

$T = 50,378 \text{ gpd/ft}$

$S = 5.079 \times 10^{-3}$

$k'/b' = ?$

OPTIMIZATION BY LEVENBERG-MARQUARDT MINIMIZATION ALGORITHM

ITER	FUNCTION	TRANSMISS	STORTIVTY
1	2.57	7345.	.4916E-02
3	2.38	6650.	.4978E-02
5	2.37	6757.	.5061E-02

Walter Ferguson Well 1

TERMINATION DUE TO PARAMETER CONVERGENCE

FINAL RESULTS

ITER	FUNCTION	TRANSMISS	STORTIVTY
5	2.37	6733.	.5076E-02

FRACTIONAL COMPONENTS OF FUNCTION VALUE

WELL #	1	2	3
	1.000	.0000	.0000

$T = 50,363 \text{ gpd/ft}$

$S = 5.076 \times 10^{-3}$

DO YOU WANT A SENSITIVITY ANALYSIS ? (Y/N)

$K/b = ?$

SENSITIVITY ANALYSIS

TWO STANDARD DEVIATION CONFIDENCE INTERVALS

PARAMETER	VALUE	LOWER LIMIT	UPPER LIMIT
TRANSMISS	6733.	6584.	6882.
STORTIVTY	.5076E-02	0.3534E-03	0.9799E-02

TO CONTINUE ENTER "RETURN"

OPTIMIZATION BY LEVENBERG-MARQUARDT MINIMIZATION ALGORITHM

ITER	FUNCTION	TRANSMISS	STORTIVITY
1	3.32	6733.	.5076E-02
3	.822	5462.	.1852E-02
5	.680	6312.	.1669E-02
6	.677	6354.	.1554E-02

TERMINATION DUE TO PARAMETER CONVERGENCE

FINAL RESULTS

ITER	FUNCTION	TRANSMISS	STORTIVITY
9	.677	6361.	.1548E-02

FRACTIONAL COMPONENTS OF FUNCTION VALUE

WELL #	1	2	3
	.0000	1.000	.0000

DO YOU WANT A SENSITIVITY ANALYSIS ? (Y/N)

Walter Ferguson Well 2, boundary-m

T = 47,655 gpd/ft

S = 1.548 x 10⁻³

K'/b = ?

SENSITIVITY ANALYSIS

TWO STANDARD DEVIATION CONFIDENCE INTERVALS

PARAMETER	VALUE	LOWER LIMIT	UPPER LIMIT
TRANSMISS	6361.	6313.	6410.
STORTIVITY	.1548E-02	0.1987E-04	0.3076E-02

TO CONTINUE ENTER "RETURN"

OPTIMIZATION BY LEVENBERG-MARQUARDT MINIMIZATION ALGORITHM

ITER	FUNCTION	TRANSMISS	STORTIVITY
1	.900	6361.	.1548E-02
3	.338	5472.	.1074E-02
5	.324	5856.	.1025E-02
7	.324	5866.	.1011E-02

TERMINATION DUE TO PARAMETER CONVERGENCE

FINAL RESULTS

ITER	FUNCTION	TRANSMISS	STORTIVITY
9	.324	5871.	.1007E-02

FRACTIONAL COMPONENTS OF FUNCTION VALUE

WELL #	1	2	3
	.0000	.0000	1.000

DO YOU WANT A SENSITIVITY ANALYSIS ? (Y/N)

SENSITIVITY ANALYSIS

TWO STANDARD DEVIATION CONFIDENCE INTERVALS

PARAMETER	VALUE	LOWER LIMIT	UPPER LIMIT
TRANSMISS	5871.	5840.	5902.
STORTIVITY	.1007E-02	0.1719E-04	0.1996E-02

TO CONTINUE ENTER "RETURN"

Walter Ferguson Well 3, boundary in

$T = 43,915 \text{ gpd/ft}$

$S = 1.007 \times 10^{-3}$

$K/b' = ?$

OPTIMIZATION BY LEVENBERG-MARQUARDT MINIMIZATION ALGORITHM

ITER	FUNCTION	TRANSMISS	STORTIVITY
1	9.11	6828.	.1047E-02
3	6.12	8711.	.9653E-03
5	6.08	8782.	.8467E-03

TERMINATION DUE TO PARAMETER CONVERGENCE

FINAL RESULTS

ITER	FUNCTION	TRANSMISS	STORTIVITY
9	6.08	8791.	.8431E-03

FRACTIONAL COMPONENTS OF FUNCTION VALUE

WELL #	1	2	3
	.6054	.1839	.2107

DO YOU WANT A SENSITIVITY ANALYSIS ? (Y/N)

Walter Ferguson all Wells, boundary in)

$$T = 65,757 \text{ gpd/ft}$$

$$S = 8.431 \times 10^{-4}$$

$$K'/b = ?$$

SENSITIVITY ANALYSIS

TWO STANDARD DEVIATION CONFIDENCE INTERVALS

PARAMETER	VALUE	LOWER LIMIT	UPPER LIMIT
TRANSMISS	8791.	8772.	8809.
STORTIVITY	.8431E-03	0.2517E-03	0.1435E-02

TO CONTINUE ENTER "RETURN"